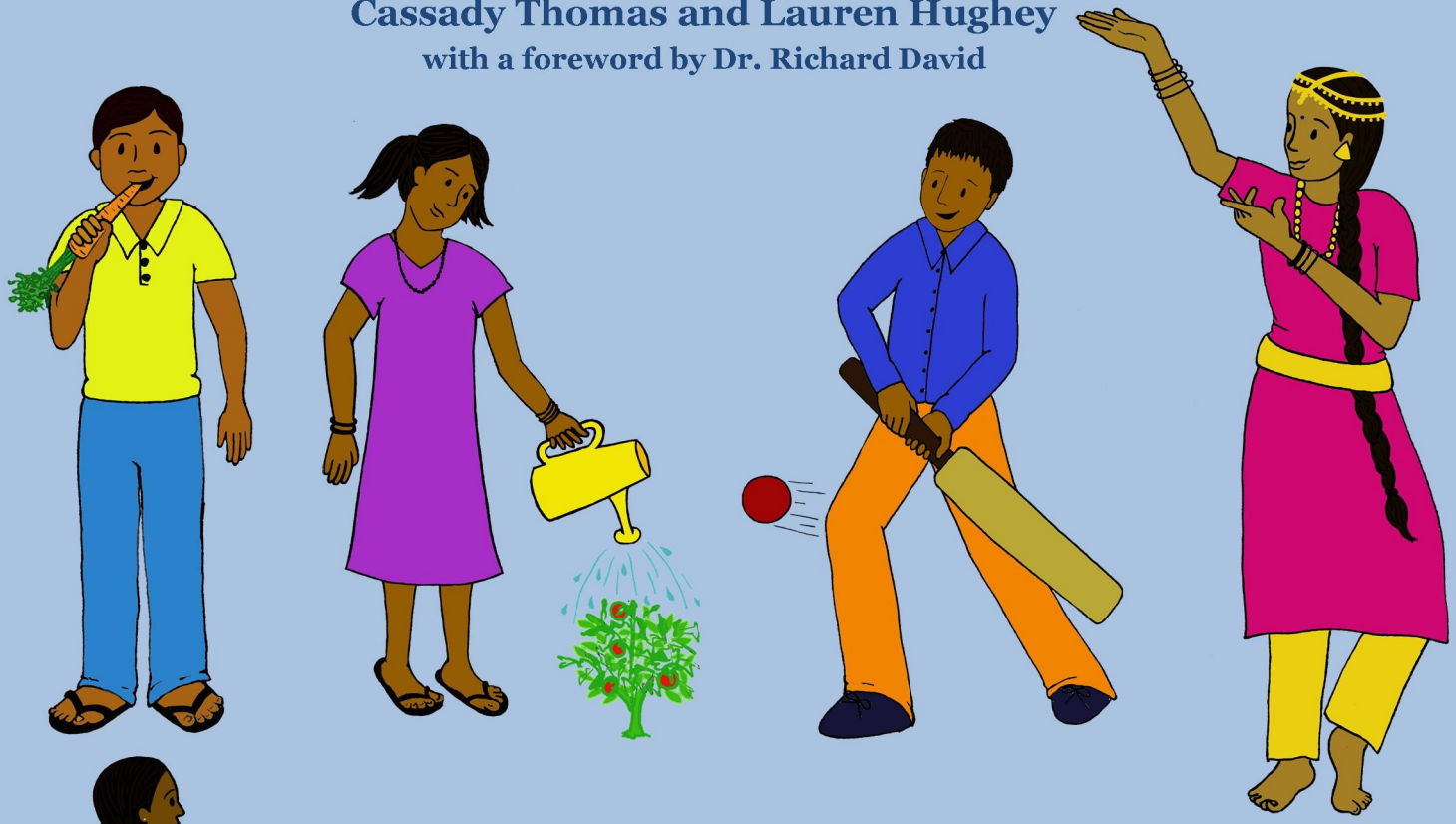
The Healthy Child Handbook

A Guide to Childhood Wellness in Developing Countries

Cassady Thomas and Lauren Hughey
with a foreword by Dr. Richard David



World's Children

~ South Asia Edition ~

The Healthy Child Handbook

A Guide to Childhood Wellness in Developing Countries

~South Asia Edition~

written and illustrated by Cassady Thomas and Lauren Hughey

In memory of Satish Yaram
August 5, 2000 – January 9, 2011

Acknowledgements

The inspiration for *The Healthy Child Handbook* emerged from the tragic death of 10-year-old Satish Yaram, a victim of HIV/AIDS. It is our hope that something good will come from his loss: the opportunity to improve the health of countless other children.

This book has been a collaborative effort. We'd like to thank all of the orphanage administrators, who care for the children with all their hearts. It is thanks to them that an orphanage can feel like the happiest place on earth. Our work would be useless without them.

We'd also like to thank our generous sponsors, who make great sacrifices for the good of the children. When it seems like we are up against insurmountable difficulties, it is their dedication that keeps us going.

Special thanks to Shobha Rani and Dr. Richard David for their valuable input and suggestions. Additional acknowledgement must go to the individuals, clinicians, and organizations who have undertaken similar endeavors before us; their thorough efforts and wonderful publications have been an invaluable source of information and inspiration at every step of this process. Our reference materials are listed in the Appendix.

For the majority of the wonderful illustrations, we thank Lauren Hughey. And for the many months of extensive research, writing, revising, and illustrating of this text we thank Cassady Thomas, program director, and Lauren Hughey, administrative assistant with World's Children.

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Foreword

When I traveled to India to visit orphans aided by World's Children, I had the opportunity to see the great work orphanages do in raising destitute children. Orphanage directors are faced with immense pressure when making health decisions for children under their care; they have very little training and virtually no support. They must decide whether a child with a fever has a viral illness and needs fluids or if the child needs to be hospitalized. All these issues are magnified and become more complicated when the child is infected with HIV.

Cassady Thomas and Lauren Hughey have created a tremendous resource for all child care workers. This handbook begins with an overview of hygiene and disease prevention and includes nutrition and oral health guidelines to aid caregivers in preventing disease.

Their writing style puts the management of illness, nutrition and sanitation into simply worded and easy to understand language. Many common conditions are addressed and advice given about both treating and avoiding illness. They also provide guidance for deciding when a condition is serious enough to warrant a trip to the doctor or hospital. Finally, there is a section on emergency first aid when a doctor is unavailable.

The information contained within this book is valuable to all people, orphanage administrators or anyone who works with children and I urge you to share the information with others who could benefit. Spreading knowledge about preventive measures for illness improves the quality of life for children throughout the developing world.

Richard D. David, MD
Encino, California
December, 2011

"One who has health has hope;
and one who has hope has everything."

- Proverb

Introduction

This handbook was initially created to provide medical information to the orphanages and hostels that World's Children supports, primarily in India. But as word has spread about the book and demand for it has grown, we realize that it really is for any childcare worker who may not always have access to a trained medical professional or the financial resources to seek medical attention. We believe that all children should receive medical care when it is needed, and that each and every child deserves to have health, safety, nutrition, education, and happiness in his or her life. It is our hope that this book will help you not only to treat disease when it occurs, but to prevent it from occurring in the first place through good hygiene and sanitation, adequate nutrition, and vaccination against common childhood diseases.

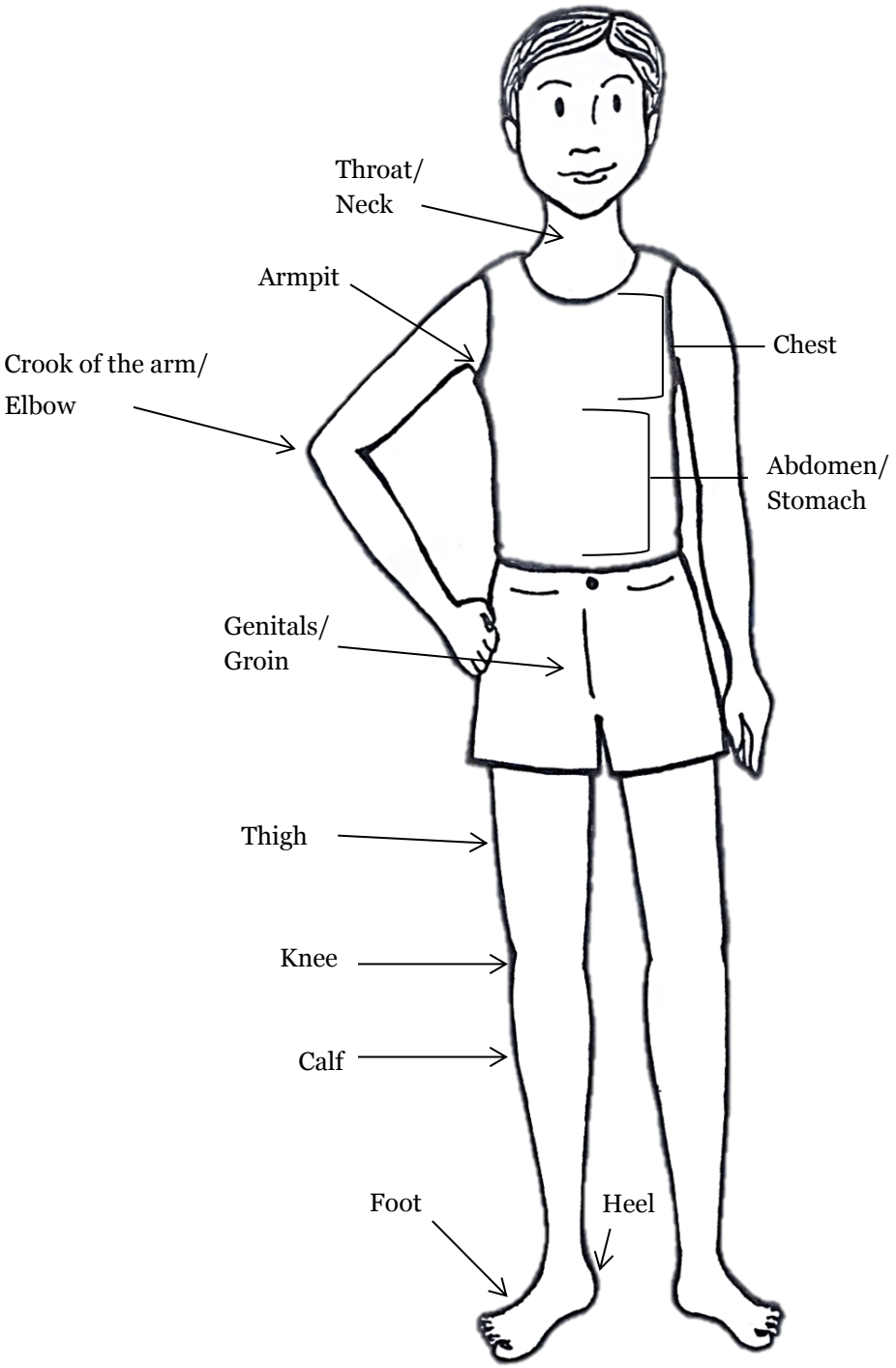
Many of the conditions described in this book can be treated in the hostel or orphanage and in a relatively short period of time. It is usually not necessary to send a child home to his or her relatives. Often, the child's family is uneducated and does not have the information to help them know what to do. *The Healthy Child Handbook* is not, however, a substitute for a doctor when emergency medical care is needed. One of the most valuable and important parts of being a good health care provider is to **know your limits**. The guidelines in this book not only provide information about what to do in the event of sickness or emergency, but also, **when to ask for help**. Sometimes, asking for help is the best thing you can do, and it is important to recognize that at times you will not be able to provide good care without assistance.

The Healthy Child Handbook has been written without a lot of technical language, because English is generally not the first language of most of our orphanage administrators. Important terms are underlined and defined when necessary, and many more words are explained in the *glossary* at the end of the book.

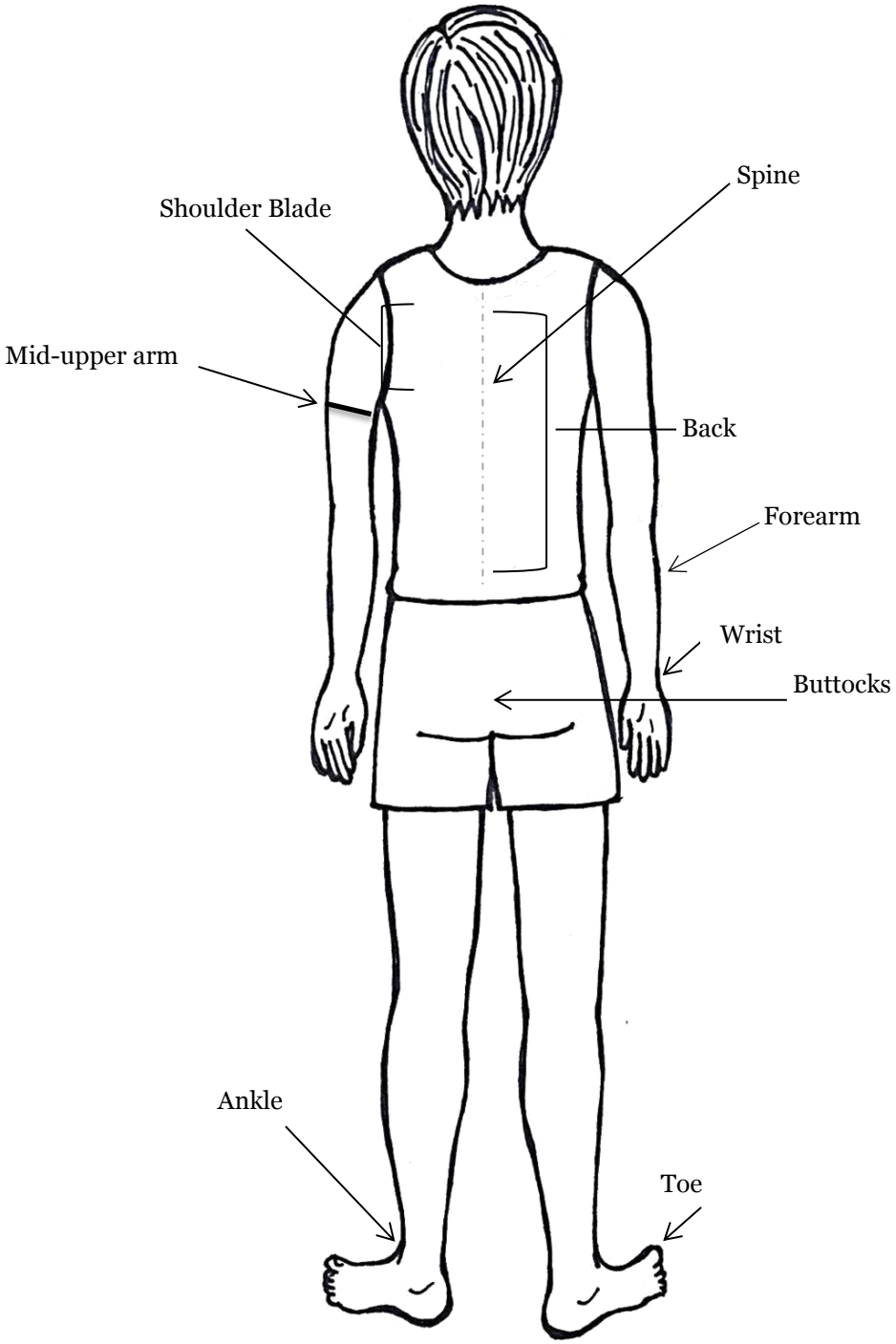
It is never too early to teach children how to care for themselves and others. At first, the suggestions in this book will take a lot of work. You will have to constantly remind children to practice preventive behaviors. Encourage the children to remind each other to practice good personal hygiene. Have the children make drawings, signs, or other brightly-colored reminders to wash their hands, wear their shoes when they go outside, or other behaviors that they are likely to forget. Over time, these behaviors will become second nature, but **you will have to work at it, and set a good example yourself!** Keep in mind, however, that the practices suggested in this book are not possible 100% of the time. Children get, and spread, sickness all the time, and it is not realistic to expect that you can prevent all disease, or follow every suggestion and practice in this handbook. The important thing is to do the best you can.

Finally, this information is meant to be shared, so that all people can be agents of their own health and wellness. If you know of others who would benefit from having a copy of this handbook, please let us know. If you have suggestions about how we can make this book better, we welcome your feedback. It is our hope that through the kindness of caretakers and through the teaching and sharing of knowledge, we can improve the health of many, giving each of the world's children the chance for a better future.

Parts of the Body



Parts of the Body

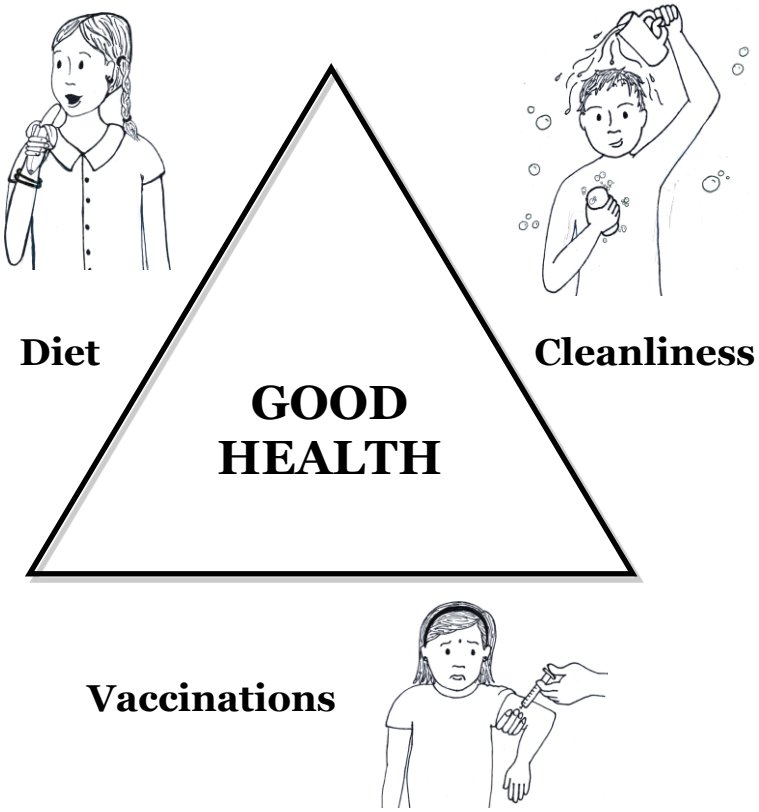


1. PREVENTION: AVOIDING SICKNESS

Staying healthy is very important for children, families, and communities. A healthy child is a happy child, while an unhealthy child often faces many difficulties at home, at school, and often later as an adult. Many childhood illnesses and conditions can be prevented or avoided by following just a few basic practices and guidelines.

In homes like yours where many children live together, maintaining clean living conditions and educating all of the children about disease prevention can be quite effective in improving the overall health of many children. There are three important factors working together to keep a child healthy: **a good nutritious diet, good <u>hygiene</u>, and vaccination**. Think of these three practices as the sides of a "Good Health" triangle; all sides must fit together perfectly to keep a child healthy. If one side is broken or missing, there is a weakness where germs can enter, making illness more likely.

<u>Hygiene</u>: practices that maintain cleanliness and prevent sickness



Hygiene and Cleanliness

Good hand-washing practices can prevent many diseases. Disease can invade the body when you touch something that has germs on it, like a door handle, then touch your eyes, nose, or mouth, or eat something with your hands. **ALWAYS** wash your hands **with soap and water** in these situations:

- Before eating
- Before preparing or touching foods
- After going to the bathroom
- After coughing or sneezing
- After helping or being near a sick or injured person
- After playing or working with an animal

Look for this doctor throughout the book for useful facts and health care tips!

How to wash your hands properly

1. Wet your hands completely with *clean* warm water.
2. Put plenty of soap on your hands and scrub every part of your hands while counting slowly to 30. Don't forget to scrub underneath your fingernails and between your fingers!
3. Rinse your hands with clean warm water until there is no soap or dirt left, then dry them with a clean towel.

Protecting Children's Health

Contagious: a disease that easily spreads from person to person

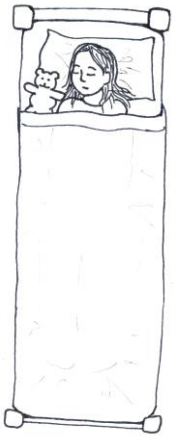
Treat sick children. Treat children who have **contagious** diseases as early as possible, so that the disease cannot spread to others. Do not delay treatment for a sick child, or you may soon find that you have many sick children on your hands.

Cover your cough. Everyone – adults and children – should cover their mouth with the crook of their arm (**not their hands**) when coughing or sneezing. If you cough into your hands and then touch another person or object that

Chronic: an illness that lasts a long time or constantly recurs

others touch often, like a door handle or toy, germs can be spread. A person who coughs all the time or shows other signs of a **chronic** illness like tuberculosis (see page 108) should especially cover his mouth with the crook of his arm when he coughs.

Sleep safely. A sick child should not sleep near children who are healthy, especially if the child has a cough. Many contagious diseases are spread by coughing or sneezing. Whenever possible, any child who has lice, open sores, or an itchy rash should also sleep separately from children who do not. This will help prevent the spread of disease. If you have space, set aside a room or part of a room for children who are sick.



Eat well. Children need a lot of nutritious food. Good nutrition protects the body from disease and helps it to grow. A well-nourished child can fight off germs that may be very dangerous for a malnourished child. A nutritious diet includes a variety of foods, not the same foods day after day. It should include fruits and especially vegetables. Read Chapter 2 for detailed information about childhood nutrition (page 9).

Bathe often. Children need to bathe daily when the weather is hot, or after working hard and sweating. Bathing helps to prevent itchy skin, rashes, and other skin infections. Sick people should also be bathed daily. Bathe young children and babies, make sure they wear clean clothes, and trim their fingernails and toenails often. Long fingernails can trap germs and parasite eggs, making the child more vulnerable to sickness.

Wear shoes. Always wear shoes or sandals to protect feet from cuts and to guard against disease. Some worms enter the body through the skin on the bottom of the feet (see Chapter 5 for information about these worms). Do not spend time outdoors without shoes, especially in areas where cows, buffalos, bullocks or goats are kept, or in public places. Make sure that the children know to wear their shoes every time they go outside. They may prefer to be barefoot, but avoiding these worms is much more important.

Take care of teeth. Brush your teeth twice a day, and especially before bed, or if you eat a lot of sugars and sweets. Infections of the teeth, gums, and mouth can cause serious illness, and even death. Read Chapter 3 for more information about taking good care of teeth.

Protecting the Home

Clean often. Sweep or wash floors and underneath furniture, and keep tables clean. Repair damage to floors and walls so insects, snakes, scorpions and rodents cannot get in as easily.

- Teach children to **ALWAYS** use a toilet or latrine. If children or animals go to the bathroom near the home or playground, clean it up at once. Clean the bathroom or latrine often, especially door handles and other things that are touched often.
- Do not let livestock like cows or goats come inside, or let children play in the pens.
- Do not let dogs inside or allow them to lick the children. Dogs may have fleas and ticks on them that can spread disease.
- Get rid of lice as soon as you know a child has them. Lice and fleas carry diseases, and can spread very quickly to many children.
- Hang bedding outside regularly. This helps get rid of pests like lice, fleas and bedbugs. If you notice bedbugs (see page 75), remove all bedding, pour boiling water on **all** sleeping mats (even if you did not find bedbugs on all mats) and wash all sheets and blankets immediately.
- Do not allow anyone to spit inside. Spitting can spread illness, because there are a lot of germs in saliva.

Protecting Food and Drink

Clean water. Whenever possible, boil or filter *all* water that does not come from a safe water source before drinking and cooking with it. This is especially important in homes with very young children, children who are HIV-positive, and at times when cases of **diarrhea**, typhoid, hepatitis, or cholera have occurred. Make sure children drink water throughout the day, especially during the hot months.

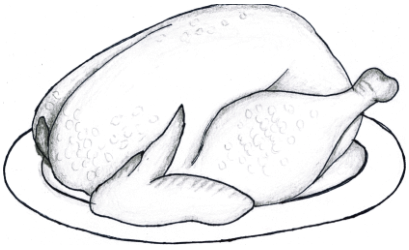
Diarrhea: loose or watery stools

Toxin: a poison that comes from a germ, plant, or animal that can cause a disease or bad reaction

Wash food first. Always rinse fruits and vegetables before eating them. Rinsing them helps get rid of chemicals, **toxins**, germs, and dirt that may have gotten on the food while it was growing or being transported.

Cook food thoroughly. Meat should always be cooked thoroughly so there are no uncooked parts inside; this is especially important for fish and pork. Raw meat can carry dangerous diseases and cooking it thoroughly kills these germs.

Be cautious when cooking chicken. Chickens carry a disease called *Salmonella* that can cause diarrhea and make some people very sick. To prevent illness, always wash your hands thoroughly before and after preparing chicken (and other meats) and before touching other foods. Make sure you wash all surfaces, knives and other utensils that the raw chicken touched.



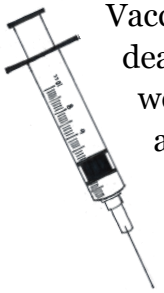
Keep insects away. Try to keep flies and other insects from landing or crawling on food because insects often carry germs and spread disease. Avoid leaving food scraps or used dishes out in the open, as these attract flies and allow germs to multiply. Protect food by keeping it covered and refrigerated whenever possible.

Fresh is best. Never serve food that is old or spoiled because it can cause sickness. Cans of food that are swollen or squirt when you open them are no longer safe to eat. Before eating food left over from a previous meal, heat it again until it is very hot. This will kill dangerous germs. If possible, only give freshly-prepared foods to children, especially if they are sick.

Keep mealtimes safe. Children with the flu, tuberculosis, or other contagious diseases should eat separately from healthy children. Dishes and utensils (spoons and forks) used by sick people should be cleaned carefully with soap and hot water before being used by others**.** Take care not to make those who eat separately feel different or excluded from other children; make sure they know they have not done anything wrong, and are not being punished for being sick.

Failure to practice good hygiene in eating and drinking can lead to *food poisoning* (nausea, vomiting, diarrhea, and stomach cramps). If there is an outbreak of food poisoning, follow the treatment for diarrhea and dehydration, and try to find and eliminate the source.

Vaccinations



Vaccinations (also called *immunizations*) protect us from dangerous and deadly diseases. A vaccine works by introducing a very small amount of a weakened or killed disease agent into the body so it can learn to recognize and fight against it. The amount of disease is so small that it's usually not harmful. If you've been vaccinated against a disease, and are later exposed to it, you will be protected. This prevents many unnecessary deaths and allows children to grow up healthy and strong.

Get all children fully vaccinated at the appropriate times! Take children to get vaccinated when they are fairly healthy (if the child has a fever or worse, do not take him to be vaccinated). Consult with a local doctor or health worker to find out about vaccination clinics in your area.

India's vaccination programme includes the following diseases:

Vaccine	Vaccination method	When should it be given?
DPT: for diphtheria, whooping cough (pertussis), and tetanus toxoid (lockjaw)	Series of 4-5 injections	First three doses at 6 weeks, 10 weeks, and 14 weeks; fourth dose at 16-24 months old; final dose at 4-6 years old.
Polio	Series of mouth drops	First four doses at birth, 6 weeks, 10 weeks, and 14 weeks; final dose at 16-24 months.
BCG (Tuberculosis)	1 injection	At birth, or any time afterwards
Measles	1 injection	9-12 months old
Tetanus Toxoid booster: (A booster injection is a follow-up vaccination)	2 injections	One at 10 years old, and again at 16 years old. Women who might become pregnant should make sure they have had the tetanus vaccine.

***Other important vaccines include*:**

Vaccine	**Vaccination method**	**When should it be given?**
HepB: Hepatitis B	Series of 3 injections	Doses at 6 weeks, 10 weeks, and 14 weeks
Hib: Haemophilus influenza type b (a type of flu)	Series of 4 injections	One injection at 2 months, one at 4 months, one at 6 months, and the last one between 12-15 months
Rotavirus (a type of diarrhea that is very common in young children)	Series of 2-3 injections depending on manufacturer	One injection at 2 months, one at 4 months, and (if needed) the last one at 6 months
Meningitis	1 injection	Age 2 or older

For more information about vaccinations, visit:

- http://india.gov.in/citizen/health/immunization.php
- www.vaccineindia.org.

Notes

2. NUTRITION: EATING FOR HEALTH

Eating a nutritious diet is a very important part of staying healthy. If a child is not receiving good nutrition, then she is at risk of getting a disease or suffering from developmental problems. Good nutrition is part of both preventing disease *and* treating disease. Ensuring that children eat a nutritious, balanced diet will allow them to grow up healthy and strong.

Eating Healthy: A Balanced Diet

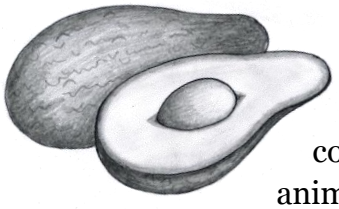
A *balanced diet* means eating a variety of foods each day. The different types of food that you should eat to stay healthy are:

- **Proteins**, such as fish, chicken, mutton, beans, dal, eggs, and groundnuts
- **Grains,** such as rice, bread, and cereal
- **Vegetables,** such as spinach, squash, tomatoes, and ladyfingers
- **Fruits**, such as mango, grapes, banana, and papaya
- **Dairy**, such as milk, yoghurt, lassi, buttermilk, and paneer

The foods we eat fill many needs. First and foremost, food must provide enough energy to keep us strong and active. It must also protect, build, and repair our bodies from the damage of everyday use. Eating a variety of nutritious foods gives your body the nutrients you need to stay active and healthy.

A balanced diet provides your body with two types of nutrients: macronutrients and micronutrients. **Macronutrients** include *carbohydrates*, *proteins* and *fats* and are the largest components of our diets.

- **Carbohydrates** are found in foods like rice and bread and help give children the energy to run and play.
- **Protein** is found in things like fish, chicken, mutton, dal, milk and eggs, and keeps the body healthy and growing. *Note: The word "protein" refers to both a food group and the essential nutrient found within those particular foods.*
- **Fats** are found in foods such as cooking oil, avocados and nuts, and provide energy and help the body to heal and repair itself.
    - Fats are necessary to stay healthy, but it is possible to eat too much fat, and to eat the wrong kinds of fats. Harmful fats are *saturated fats* and *trans-fats* which can lead to health problems such as cardio-vascular (heart) disease and diabetes. Reduce your consumption of these bad fats by limiting how much animal-based fat you consume, and some oils such as coconut and palm oils. It is also good to avoid processed and deep fried foods. Good fats are unsaturated fats, found in nuts, seeds and avocados.



Micronutrients are vitamins and minerals which are also important parts of our diets, but are needed in smaller amounts than macronutrients. ***Vitamins*** are found in all nutritious foods and are in all plants and animals. Vitamins help the body use the nutrients in food and allow you to grow and develop normally. ***Minerals*** are found in all nutritious foods. Minerals come from the soil and water and are absorbed by plants as they grow. We absorb minerals when we eat plants, or animals that eat plants. Minerals also help the body to use its nutrients, allowing you to grow and develop normally.

In order to stay healthy you must eat enough of these nutrients every day. To do this, make sure that fruits and vegetables are always available at mealtimes, along with protein that comes from foods like milk and eggs. See page 14 for more details about important micronutrients.

Water is also part of a healthy diet. Water is used by every cell, tissue, and organ in your body. Drinking water allows your body to perform all of its important functions like keeping your body temperature normal, getting rid of wastes through urination, defecation, and perspiration, as well as protecting your joints and tissues. To fulfill their daily needs, make sure children drink water throughout the day as well as at mealtimes. It is especially important to drink water on hot days and after working or playing under the hot sun. Every child should have his or her own cup, if possible, to prevent the spread of germs.

Good Nutrition Helps Prevent Illness

Failing to eat a nutritious and balanced diet may cause disease and leads to problems with growth and development. Poor nutrition weakens the body, making it very hard to resist disease and repair damage from everyday life.

- Malnourished children are more likely to get sick with diarrhea, measles, or tuberculosis than children with good nutrition.
- These diseases (and others) can be especially dangerous when children are poorly nourished and are living close together.
- Minor illnesses like the common cold can be more severe, leading to dangerous complications more often in children who are malnourished.

Good Nutrition Helps Cure Illness

Good nutrition not only prevents disease, but it also helps a sick person fight illness to become healthy again. It is extremely important for a sick child to eat well, so always make sure sick children are eating and drinking as much nutritious food as they are able to take in.

The first signs of poor nutrition often appear when a child becomes ill. If a child has had diarrhea for a few days, and begins to develop signs of severe malnutrition (swollen face, hands and feet, dark spots on the skin, or sores on his legs), this is your cue to help him! The child needs to eat larger amounts of highly nutritious food, or he is in serious danger.

Calorie: a way of measuring the amount of energy contained in the foods we eat

Malnutrition

A child becomes malnourished when she is either not consuming enough **calories**, or is not eating a balanced diet. Malnourishment means that the child is not eating enough of the three macronutrients (remember: carbohydrates, proteins, and fats), or she is not getting enough micronutrients.

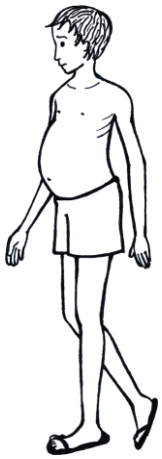
Levels of Malnutrition

Children grow very fast, and need a lot of nutritious food to support healthy growth and development. As a result, malnutrition is often most severe in children. There are different stages of malnutrition:

***Did you know?* In India, nearly 50% of ALL children experience malnutrition.**

Mild Malnutrition

Mild malnutrition is usually reversible with a more nutritious diet, and may not cause permanent developmental damage. Giving a child more food, more often will not only improve mild malnutrition, but may also prevent more dangerous problems.



Common symptoms:

- The child does not grow or gain weight as fast as he should.
- He appears small and thin, but doesn't necessarily look or feel sick.
- He becomes ill more frequently and takes longer to get well than a well-nourished child.
- He suffers from more diarrhea and colds than other children.
- He may have a round stomach, but the rest of his body is relatively thin.

Treatment and prevention:

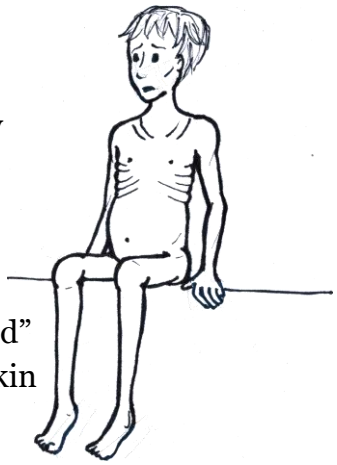
- Give him more nutritious foods, more often. Instead of a few large meals, try giving several small meals of nutritious food throughout the day.

Severe Malnutrition

Severe malnutrition is also called *protein-energy malnutrition*, because the child is not getting enough calories or energy from his food, and does not have enough protein to repair the breakdown that body cells experience with daily use. This occurs most often in babies and younger children who stop breastfeeding too suddenly or too early, and do not get sufficient amounts of nutritious food after weaning. You may notice the onset of severe malnutrition when a child is sick with another illness, or has diarrhea. Both of the following types of severe malnutrition need immediate medical help in order to prevent further illness, developmental problems, and death.

The two main types of severe malnutrition are:

1. Marasmus (mah-raz-mess)



Marasmus means that a child is not getting enough calories or nutrients. Basically, he is starving. It may also be referred to as "dry malnutrition."

Common symptoms of marasmus:

- Not getting enough food
- A small, very thin, emaciated body, known as "wasted"
- The child looks like skin and bones, and has loose skin on his armpits, thighs, buttocks and face.
- Rounded "potbelly" stomach
- Thin hair that falls out easily
- Extremely underweight

Treatment and prevention:

- **Seek medical attention** – at this stage, the child needs more than just food, and it is possible that he will not be able to recover.
- After receiving help from a doctor, continue to provide the child with a nutritious diet, especially foods containing carbohydrates and fat.

2. Kwashiorkor (kwa-she-orr-corr)

When a child has kwashiorkor, she may be getting enough calories (in other words, she doesn't always feel hungry), but not enough protein. This might occur if a child eats a lot of rice, for example, but not many other foods. Often, kwashiorkor results when a young child who is breastfeeding suddenly stops breastfeeding, and does not get the proper nutrients following weaning. Kwashiorkor may also be referred to as "wet malnutrition."

Common symptoms of kwashiorkor:

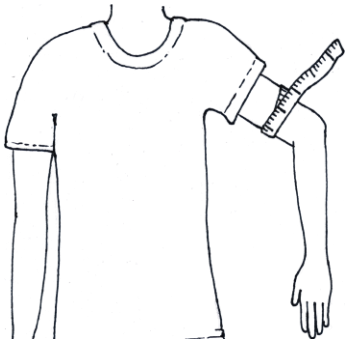
- Big, round belly
- The child's hair may begin to turn reddish and become brittle, meaning it breaks easily.
- Swollen feet, hands and face
- Sores and wounds on the arms and legs
- Thin upper arms

Treatment:

- Add more variety to the child's diet, and feed her more often.
- Give more foods containing protein (page 9) and zinc (page 19).
- If possible, provide a multivitamin that includes zinc.
- Treat the sores and wounds and keep them clean (refer to page 118).

Prevention:

- Provide a variety of nutritious foods that contain protein and zinc.
- When a child stops breastfeeding, make sure to include plenty of protein in the diet. Young children are growing fast and need protein to build their muscles and keep growing.
- Check for mold before cooking foods like beans and lentils. In humid climates, eating moldy foods accelerates the progression of kwashiorkor.



Measuring Malnutrition:
A quick way to tell if a child older than one year might be malnourished is to measure around his upper arm. Take a string or tape measure, and measure the distance around the child's arm (circumference), about halfway between the shoulder and the elbow. If the child's arm measures less than 13.5 cm, he is malnourished. If it is less than 12.5 cm, the child is *severely* malnourished.

"Hidden Hungers"

Being well-nourished is not always about getting enough to eat. The body also needs **micronutrients** – vitamins and minerals – to maintain good health. If you don't eat a balanced diet you may not get enough micronutrients. A child with a micronutrient deficiency (*deficiency* means not getting enough) may not be underweight or appear malnourished, and may seem normal and healthy at first; that is why it is called "hidden hunger." The hidden hungers can cause serious illnesses and even death. To avoid these serious illnesses, you must eat a balanced diet that includes a variety of fruits and vegetables. The most commonly deficient micronutrients are: vitamin A, iron, folic acid, iodine, and zinc.

Micronutrients: vitamins and minerals that the body needs in small amounts to help with normal growth and development.

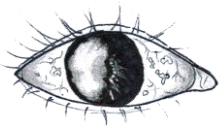
Micronutrient Deficiencies

⇨ *Vitamin A*

Vitamin A helps to keep our eyesight healthy and sharp. Vitamin A deficiency is most common in children ages 1 to 5 who are not getting enough vitamin A in their diets. Without prompt recognition and treatment, vitamin A deficiency can cause a child to become permanently blind.

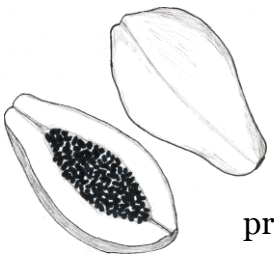
Common symptoms of vitamin A deficiency:

- The child may have night blindness, making it very hard to see where he or she is going in the dark.
- Eyes become very dry. The white part of the eye loses its shine and becomes wrinkled.
- Small gray bubbles form inside the child's eyes.

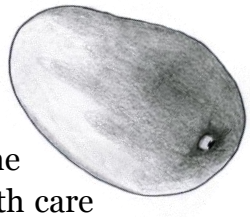


- As the deficiency gets worse, the cornea (the clear, protective covering of the colored part) also becomes dry. You may notice small holes or pits.
- The cornea may become soft, bulge out, or even break open. Usually this is not painful, but blindness can occur if the eye gets infected or the damage gets worse.

- Vitamin A deficiency often becomes more noticeable when a child is sick with another illness like diarrhea or measles. Make it a habit to **gently and carefully examine the eyes of all sick and underweight children** to look for these important signs of vitamin A deficiency.



Treatment and prevention:



- Provide foods rich in vitamin A, which are typically orange-colored fruits and vegetables.
- If a child is not likely to get these foods, or if he is developing any signs of deficiency, go to a health care provider to get vitamin A treatment which may include eye drops.

***WARNING*: Too much vitamin A can be poisonous**. Follow your health worker's advice when giving supplements (vitamin pills or drops). Do not worry about poisoning from eating vitamin A-rich foods.

Foods rich in vitamin A: carrots, spinach, sweet potatoes, papaya, mango, squash, liver, whole milk, and eggs

⇨ *Iron*

Iron plays an important role in many of our body's functions. The most important thing it does is to help the blood transport oxygen from the lungs to the rest of the body. When a person does not have enough iron in her body, she develops **anaemia**. Anaemia occurs when blood cells are destroyed or lost faster than the body can replace them. Most often anaemia occurs when a person is not eating enough iron-rich food, but it can also be because of blood loss from a bad wound, bleeding stomach ulcers, or dysentery (diarrhea with blood). Malaria can also cause anaemia because it destroys red blood cells.

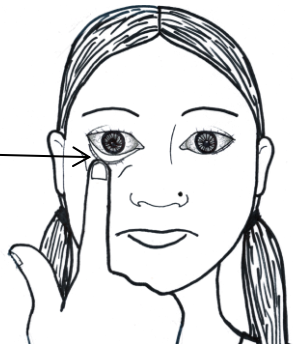
Anaemia: when the blood isn't able to carry as much oxygen to the body as it normally would, resulting in weakness and fatigue.

Some common causes of severe anaemia in children are: malnutrition, hookworm infection, chronic diarrhea, and dysentery.

Important Note: Menstruating girls and women are at much higher risk for anaemia than boys and men because of their monthly blood loss. Anaemia also causes a significant disease burden for pregnant women. Pay special attention to girls who are of childbearing age, or who might get married soon, as sufficient iron levels will be very beneficial to these young women and their families in the future.

Common symptoms of anaemia:

- Weakness and fatigue
- Very pale or transparent (see-through) skin
- Pale inside eyelids
- White fingernails
- Pale gums
- Persistent cough
- Lots of bleeding after a small injury
- Children who tend to eat dirt might be anaemic

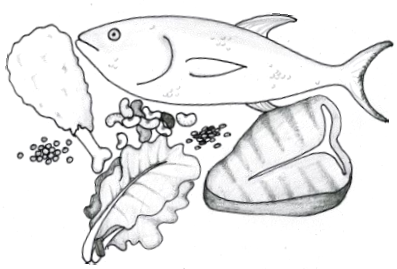


Symptoms of very severe anaemia:

- Swollen face and feet
- Rapid heartbeat
- Shortness of breath

Treatment and prevention:

- **Eat foods that are rich in iron**. See the box below for a list of iron-rich foods. To help the body absorb more iron, eat raw vegetables and fruit with meals, and avoid drinking coffee and tea with food. Cooking with iron pots can also be helpful.
- For moderate or severe anaemia, give iron supplements regularly as recommended by a trained health worker.
- If the anaemia does not improve with a better diet and supplements, seek medical help.
- If the anaemia is caused by something besides an iron-poor diet, such as dysentery, hookworm, malaria, or another disease, the underlying cause also must be treated promptly.



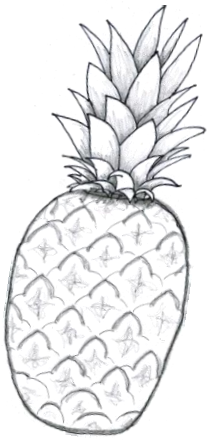
Foods rich in iron: Meat, fish, chicken, liver, dark green leafy vegetables, beans, peas, and lentils

⇨ *Folate*

Folate, or folic acid, is a vitamin that is very important for the body because it helps to make new cells. It is very important that girls and women get enough folic acid before and during pregnancy because it helps to prevent many birth defects.

Common symptoms of folate deficiency:

- Anaemia
- Fatigue
- Weakness
- Shortness of breath



Prevention and Treatment:

- Eat foods that naturally have folate. See box below for some folate-rich foods.
- Take the required amount of a daily folate supplement.
- If available, eat foods fortified with folate, which may include breads and cereals.

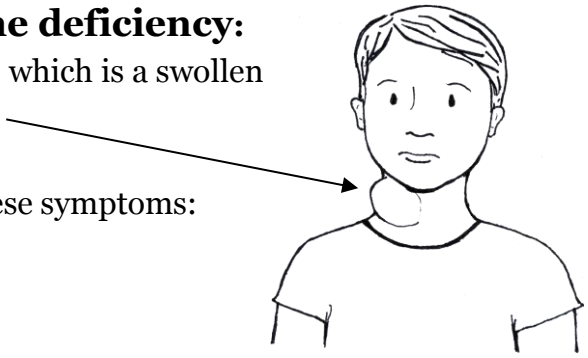
Foods rich in folate: lentils, chickpeas, ladyfingers, oranges, spinach, grapefruit, pineapple

⇨ *Iodine*

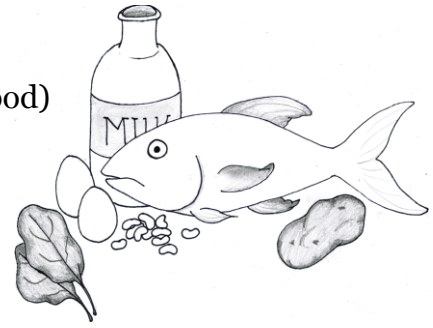
Iodine helps various functions in the body to operate smoothly and is especially important in brain development. Iodine is important for a gland called the *thyroid*, which helps regulate how we turn food into energy. When the body doesn't get enough iodine, it can't produce enough thyroid hormone, so the thyroid may work extra hard, causing it to enlarge and form what is called a *goiter* on the person's neck. Iodine deficiency can also cause *hypothyroidism*, which is a condition where there isn't enough of the thyroid hormone in the body. Without the hormone, the body can't function properly.

Iodine deficiency is also responsible for many birth defects, such as reduced mental function, deafness, and even infant deaths, so it is very important that women get enough iodine before and during pregnancy. It is also important that children get enough iodine in order to grow healthy and strong.

Common symptoms of iodine deficiency:



- The child may develop a goiter, which is a swollen nodule on the neck.
- Reduced mental function
- Hypothyroidism, which has these symptoms:
  - Fatigue
  - Depression
  - Weight gain
  - Getting cold very easily
  - Sleepiness
  - Dry, coarse hair
  - Constipation
  - Dry skin
  - Muscle cramps
  - Increase in cholesterol (a type of fat in the blood)
  - Decreased ability to concentrate/focus
  - Aches and pains
  - Swelling in the legs



Prevention and Treatment:

- Eat foods that contain iodine. See the box below for foods rich in iodine.
- Always use iodized salt if available.

Foods rich in iodine: fish, dairy, eggs, meat, beans, potatoes, and spinach

⇨ *Zinc*

Zinc is widely used within the body so it is important to consume it daily. Zinc improves the body's **immune system**, helps to make proteins, assists in healing wounds, and supports normal growth and development during pregnancy.

Common symptoms of zinc deficiency:

- Slow growth and development in children
- Loss of appetite
- Hair loss
- Diarrhea
- Impaired ability to fight off disease
- Mental lethargy (slowness)

Immune System: the system of cells, tissues, and organs that protect the body from invading diseases.

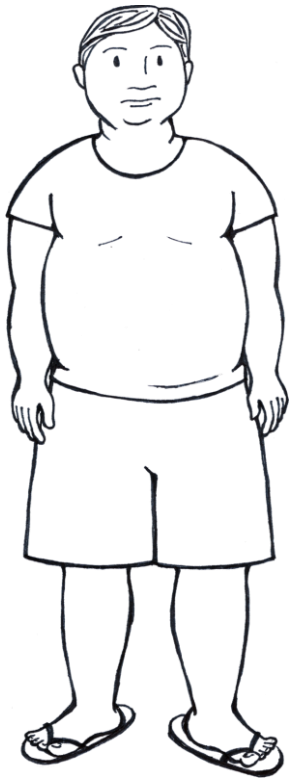
Prevention and Treatment:

- Eat foods rich in zinc. See the box below for foods rich in zinc.
- Take a multivitamin that contains the daily recommended amount of zinc.
- Treat diarrhea to prevent further loss of zinc. See page 39 for treatment of diarrhea.

Foods rich in zinc: meat, fish, beans, nuts, seeds, leafy greens, dairy

Overeating

Just as it is unhealthy to eat too little, it is also unhealthy to eat too much. Part of eating a balanced diet means eating certain foods in moderation. Adults and children should consume sweets, oils, and fats in moderation, and should also make sure to stay active and get enough exercise. Overeating, without getting enough exercise, can lead to health problems such as *obesity*, *diabetes*, and *cardiovascular disease*. These problems are just as serious as those caused by a lack of food, so it is very important to limit unhealthy foods and overeating.

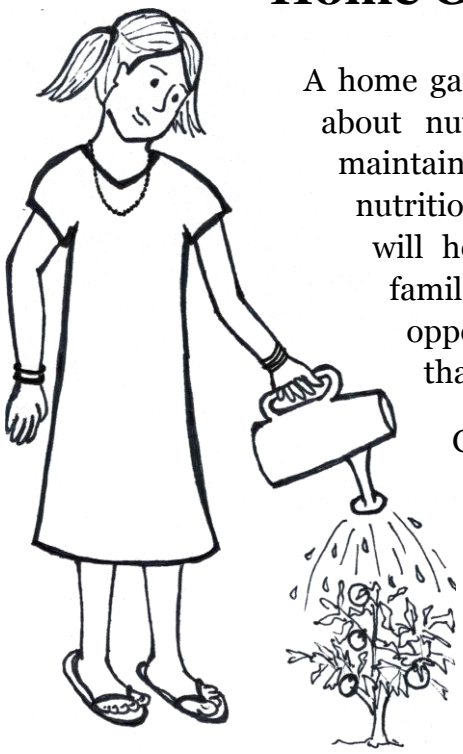


Obesity: Obesity (being very fat) is a growing problem around the world. It is largely a result of eating too many pre-packaged, processed (manufactured) foods and not getting enough exercise and physical activity.

Diabetes: Diabetes is a chronic disease that is a result of both lifestyle choices and genetics. People with diabetes are unable to process sugars, causing "high blood sugar." Diabetes can be managed in many cases with a good diet and exercise, but for some people, medicines are also needed to help control the disease. To reduce the risk of diabetes, it is important to consume a diet high in fiber, low in saturated and trans-fats, to get plenty of exercise, and to avoid smoking and excess consumption of alcohol. Some early signs of diabetes include always being thirsty, urinating a lot, and being unusually tired all the time.

Cardiovascular disease: This is a disease of the heart and/or blood vessels that may be due to genetics or lifestyle choices including diet, smoking behavior, and exercise. Around the world, many countries are facing increasing numbers of people suffering from cardiovascular disease, a chronic illness that can lead to heart attack and stroke.

Home Gardens



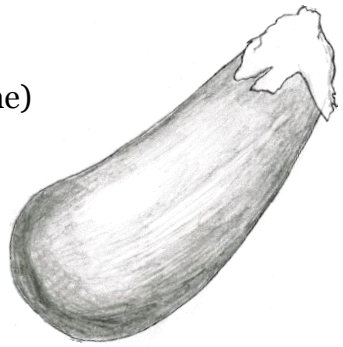
A home garden can be very beneficial in teaching children about nutrition, and it gives them an active role in maintaining their own health and wellness. It supplies nutrition for children now, and the knowledge they gain will help them to provide better nutrition for their families later in life. Gardening also offers an opportunity to get some exercise, and you may find that some children enjoy it very much.

Gardening supplies a variety of fruits and vegetables that can help children eat a balanced, nutritious diet. Fruits and vegetables are full of vitamins and minerals that help children develop and stay healthy. A home garden also helps save money by growing food that would otherwise cost money, while providing the children with the nutrition they need.

A big yard isn't necessary to grow a garden; instead, many vegetables can be grown in pots or raised garden beds that take up less room. Make sure that you plant fruits and vegetables in fertile soil where they will receive plenty of sunlight.

Recommended vegetables/fruits to plant:

- Ladyfingers
- Spinach
- Beans
- Brinjal (also called eggplant or aubergine)
- Cucumbers
- Melons
- Tomatoes
- Onions
- Potatoes
- Carrots
- Pumpkins



For more information on nutrition, visit: www.foodpyramidindia.org, www.iloveindia.com/nutrition/index.html, and www.mypyramid.gov

Notes

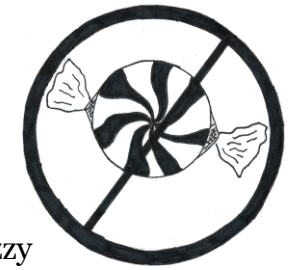
3. ORAL HEALTH

Oral health refers to the health of your teeth, gums, and mouth. Taking good care of your mouth, teeth and gums is extremely important because:

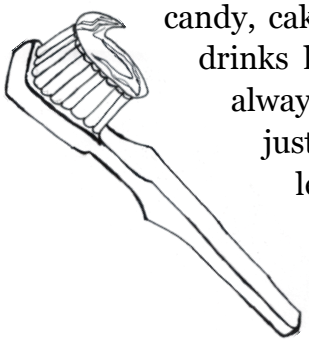
- You need strong, healthy teeth to chew and digest food (and remember, once all of your adult teeth have come in, you don't get any more!).
- Good oral health can prevent painful **cavities** and sore gums.
- Decayed or rotten teeth caused by *not* brushing often enough can lead to serious infections that may cause problems in other parts of the body.

Cavity: tooth decay caused by leftover food particles and bacteria in the mouth.

★ ***Dental problems can even cause death!*** ★



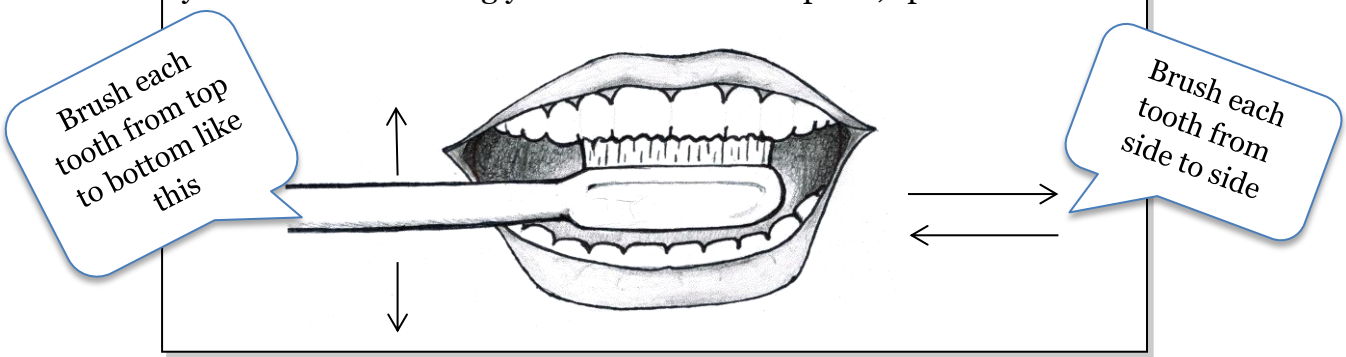
Keeping teeth and gums healthy



1. **Avoid too much sugar**. Too many sweets (like candy, cake, tea or coffee with lots of sugar, or fizzy drinks like colas) can rot the teeth quickly. Avoid these foods and always brush after eating them. Especially avoid eating these foods just before bedtime. If you don't have a toothbrush, at the very least swish water around in your mouth after eating sweets.

2. **Brush teeth well every day.** Brush at least twice a day and always brush immediately after eating sweets. Teach children to brush their teeth as soon as they grow in.

Brush teeth from top to bottom. Brush the front, back, top, and bottom of every tooth. Make sure you have brushed all tooth surfaces well, including your gum line and the teeth in the very back (molars). Try to avoid swallowing a lot of toothpaste. After you are done brushing your teeth with toothpaste, spit it out.



3. Floss. If you have it available, use floss once a day between each tooth to remove food that may be stuck and cause cavities. Older children and adults can also use a toothpick to remove food items that get stuck between teeth. Do not give a toothpick to a small child.

No toothbrush?

You can use a finger or a stick to "brush" the tooth surfaces. Wash your hands or the stick first and put toothpaste on the end of the stick, or wrap a napkin or towel around your finger and use that. If you know you will not have access to a toothbrush for a while, try to avoid sugary foods.

No toothpaste?

- Salt water or baking soda can be a good substitute for toothpaste.
- Charcoal is another substitute for toothpaste. Grind charcoal until it is a fine powder and remove all of the big pieces. Dip your toothbrush or finger in the charcoal and rub it all over your teeth and continue to brush your teeth as described on page 23. Rinse your mouth well.
- If you don't have any of these, rinse and rub well with clean water.

Cavities

To keep a cavity from hurting a lot or getting infected, it is even more important than usual to brush regularly and avoid sweets. If possible, have a dental worker fill the cavity as soon as you can. An infected cavity will usually result in a toothache, which can be extremely painful. If the infection reaches the tooth's root (inside the gum), it can form an abscess. At this point, the infection can spread to the bloodstream and other parts of the body, and can be quite dangerous.

Toothache

Toothaches can be very painful and unpleasant. The best way to avoid toothaches is to take good care of teeth by brushing every day and avoiding sweets. If a child does get a toothache, there are a few home remedies that can help to ease the pain.

- Take a pain medicine, like acetaminophen or ibuprofen.
- Clean the cavity and tooth well, and rinse the mouth with warm salt water.
- If there is a lot of swelling and **pus,** or a fever, an antibiotic might be necessary.
- If the pain and swelling do not go away, or if they keep coming back, the tooth might need to be pulled. Seek a dental worker.

Pus: a yellowish-white oozy substance, indicating that the body is fighting an infection in that area

Fluorosis

Fluorosis (flor-o-sis) is a dental condition that causes white spots or brown stains to occur on a child's teeth. Fluorosis is caused by ingesting too much fluoride, one of the earth's most common elements. Fluoride is found naturally in groundwater, and therefore it is in many drinking water sources. In small amounts, fluoride can be beneficial for preventing cavities, but in large amounts, it can damage the teeth and cause stains. Dental fluorosis mostly affects children less than eight years old, because this is when the adult teeth are developing.

Fluorosis: staining of the teeth due to high levels of fluoride in the drinking water.

Treatment:

Once the teeth have developed (usually by age 8), stains caused by fluorosis are permanent. Sometimes the stains can be covered up by dental procedures, but this can be extremely costly, and is only cosmetic (for looks). Some children may feel embarrassed by the staining on their teeth. Make sure affected children know that this condition is not their fault, or the result of any wrong-doing. Watch for signs of anxiety, depression, and bullying (all discussed in Chapter 4).

Prevention:

There is not a lot that can be done to prevent dental fluorosis. If the condition is severe for many children in your home, it may be beneficial to explore alternative water sources. There are also techniques that remove fluoride from water (called defluoridation), but these can be quite costly.

Improving nutrition can also protect against fluorosis. Certain nutrients, including calcium and vitamin C, are thought to help reduce the risk of damage to the teeth while they are developing.

Important note:

Fluorosis can affect other parts of the body than just the teeth. It also affects bone and joint health (called skeletal fluorosis). In extreme cases, too much fluoride can cause fluoride poisoning or *toxicity*.

Symptoms of *fluoride toxicity* include stomach ache, nausea, vomiting, and diarrhea. Fluorosis can also occur in adults, though there may not be any staining of the teeth, because an adult's teeth are already fully formed.

Chewing Paan

Do not chew paan. Though the paan leaf itself is not harmful, the other ingredients added to the leaf cause health problems. Tobacco, lime, and betel nut are hazardous to your health. Chewing paan has been linked to many different types of cancer, including cancer of the mouth, gums, esophagus (the part of the body connecting the mouth and the stomach), liver, lungs, pancreas, and others. Chewing tobacco by itself can also cause cancer.

Did you know? Chewing paan multiplies your chances of getting mouth cancer by almost 10 times!

Chewing paan may be relaxing, but it is not good for your teeth or your overall health. The benefits of avoiding paan outweigh the benefits of chewing it. On top of causing cancer, paan stains and damages the teeth and causes cavities so it is important to avoid it.

Infections in the Mouth

- Some illnesses and fevers can cause a white or yellowish coating to form on the tongue and the roof of the mouth. Although this coating is not usually dangerous, you should rinse the mouth with warm salt water and baking soda multiple times a day, if possible.
- Small white spots (like grains of salt) inside a child's mouth may be an early sign of measles (see page 100), especially if the child also has a fever. Seek treatment!
- **Thrush:** Thrush is an infection that causes small white patches inside the mouth. This usually happens because of a weakened immune system, but it can also occur after taking some antibiotics, and it is very common in infants. It often gets better without treatment (especially in babies), but eating yoghurt (curd) can be helpful. If a thrush infection does not go away after two weeks, or if it is preventing a young child from eating, seek help from a medical professional.

For more information on oral health, visit these websites:
http://lifestyle.iloveindia.com/lounge/how-to-brush-your-teeth-properly-4997.html
http://www.cdc.gov/oralhealth/topics/child.htm

Notes

Notes

4. MENTAL HEALTH

Mental or emotional health is an important part of overall health. A person achieves optimum health when they are physically and mentally healthy. Just as being free of disease makes you physically healthy, being free of mental problems makes you mentally healthy. When someone is experiencing symptoms of mental illness they need treatment, just like a person who is experiencing symptoms of disease. When someone has mental well-being they are able to work, play, and study to the best of their abilities. It is important to promote mental health so that children can grow up to be happy and healthy adults.

Stress

Though children may seem carefree most of the time, they experience stress just like adults. Pressure and conflict from school, friends, and in the home can cause stress for a child. While it is normal, and good in small amounts, children may lack the ability to cope with large amounts of stress. It may seem like a small problem to you, but stress can negatively affect the way children act, think and feel.

Common symptoms of stress:

Emotional/Behavioral Symptoms:

- Anxiety (nervousness)
- Worries
- Being unable to relax
- New or recurring fears (such as fear of the dark, fear of being alone, fear of strangers)
- Clinging to you and being unwilling to let you out of sight
- Anger
- Crying
- Whining
- Inability to control emotions
- Aggressive behavior such as hitting, being disrespectful, and yelling
- Stubborn behavior
- Regression to behaviors that are typical of a younger child
- Unwillingness to participate in family or school activities

Physical Symptoms:

- Stomach aches
- Nervousness
- Trouble sleeping
- Nightmares
- Stuttering (a speech problem)
- Bedwetting
- Sickness, such as colds or fevers

How to help:

- Don't ignore symptoms.
- Encourage the child to talk about his concerns, worries, and fears.
- Listen to the child without being critical.
- Find out what situations are causing the stress.
- Encourage him and show affection.
- Give him tasks that you know he can succeed in doing.
- Encourage physical activity.
- Find a place where he can relax and do things like listen to calm music, meditate, and breathe deeply.

Grief

Many of the children you work with come to the hostel or orphanage when their own family is unable to care for them because of financial circumstances, disease, or death. When a child loses a loved one, he or she may experience many different emotions. Some children go through the grieving process smoothly, while others may be more affected and may grieve for a long time. Losing a loved one such as a parent, sibling, or friend is a very traumatic event in a child's life, so it is extremely important that you be there to help her through this sad time.

Common symptoms of grief:

- Sadness
- Crying
- Trouble sleeping
- Loss of appetite
- Withdrawing from others
- Depression
- Difficulty concentrating at home and school
- Negative change in performance at school and other activities
- Anxiety
- Post-Traumatic Stress Disorder or PTSD (page 34)
- Anger and irritability
- Stress

- Physical symptoms like headaches, stomachaches, and body aches
- Acting younger than the child's age
- Negative behavior that is not normal for that child

How to help:

- The most important thing is to be there for the child, listen actively and don't interrupt her.
- Encourage her to describe and express how she is feeling.
- Let the child know it is okay to feel emotions like sadness and anger.
- If the child asks about her loved one's death, calmly and *truthfully* explain what happened in simple terms. Use words like *dead* and *died*.
- Tell the child that the loved one's death was not her fault.
- Talk about the child's fears. Often a loved one's death makes a child fearful of many things. Explaining things will calm these fears.
- Spend time with the child and give her affection. Let the child know that you are there to take care of her and comfort her.
- Physical contact is needed; give the child extra hugs.
- Help the child establish or maintain a routine and avoid too much change in the child's life.

- Teach the child how to deal with bullies saying mean things to her about her loved one's death. See page 36 for bullying.
- Encourage the child to write poetry and stories, to make art, or other forms of expression about her loved one's death.
- If the child is displaying symptoms of severe depression, or PTSD, seek counseling for the child if possible.

Ideas to help a grieving child:

- Help the child make a memory box of her loved one. This could be made out of anything (such as folded paper or an old cardboard box), and is a place for the child to keep things that remind her of the memories she shares with the lost loved one. These can include letters, photos, or pieces of jewelry for example. The child can then visit the memory box any time.

- Encourage the child to draw pictures of her memories, or any other form of art (painting, collage, puppets, play acting, dancing, or playing an instrument). If the child is old enough to write, he could write a letter or a poem to the loved one, telling about how he is doing, and how the loved one would be proud of him.
- Sometimes a grieving child will be angry. Help the child find a way to express anger in a safe way (such as tearing an old piece of cloth into rags, kicking a pillow, or throwing a ball at a target where no one can get hurt).
- Help the child stay connected with the loved one by hanging pictures of them, wearing an old garment of theirs, or by taking up an activity that the loved one often did such as cooking or gardening.
- For a group of grieving children, have them all sit in a circle with a large heart outlined in chalk in the middle of it. Play soft music quietly in the background. Give each child a candle, and one by one have them go to the center of the heart to have their candle lit, then have them place the candle somewhere on the outline of the heart. Tell the children to think about their loved one who died as they light their candle and place it on the heart. When all the candles are lit, explain to the children that their loved one(s) are now safe and that it's okay to let them go. Tell the children to think of their favorite memory of their loved one. After a few minutes of quiet, turn on some cheerful music (such as Bollywood dance music). Tell the children it is okay to let their loved ones go and that it's okay for them to now go and live their own life with happiness. Then let the children dance for joy, in order to honor those who have died.

Depression

When a child is chronically sad, to the point where it disrupts his daily activities like school, normal interests, and home life, then that child may be experiencing what is known as clinical depression. Depression may present itself in more ways than just sadness, so it is important to note any negative changes in children's behavior and look for the source of it. It may stem from grief, abuse, disruption in their lives, or problems adjusting to new living situations. It is important that you address the issue so that the child can live a happy and normal life.

Common symptoms of depression:

- Feeling sad and hopeless
- Withdrawing from social situations
- Anger and irritability
- Highly sensitive to being rejected
- Not participating in activities or avoiding their friends
- Changes in appetite – eating either more or less food
- Changes in sleep habits – sleeping either more or less
- Tantrums, outbursts, or episodes of crying
- Difficulty concentrating
- Low energy
- Physical complaints like stomach aches or headaches that don't go away
- Child may feel worthless or guilty
- Abusing substances like alcohol or other drugs
- Thoughts of death or suicide

How to help:

- Don't ignore these symptoms.
- If possible, seek counseling for the child.
- Find the source of what's causing the depression.
- Spend more time with the child to support and encourage him.
- Encourage him to participate in group activities.
- Talk about how the child is feeling.

Post-Traumatic Stress Disorder

A child who experiences ongoing difficulty after a traumatic event may have post-traumatic stress disorder (PTSD). The traumatic event may involve a situation where the child's or someone else's life was threatened or where injury occurred. These situations include natural disasters, physical or sexual abuse, violence in the home or community, vehicle accidents, or a serious diagnosis such as HIV/AIDS or tuberculosis.

Common symptoms of PTSD:

- Agitation or confusion
- Intense fear
- Helplessness
- Sadness
- Denial of the event
- Children may experience emotional numbing to block out the pains of their past.
- Frequent memories of the past traumatic experience, or episodes where they feel like the event is happening again ("flashbacks"). Young children may also express this through how they play.
- Nightmares and trouble sleeping
- Avoidance of the area where the traumatic event happened, or similar places
- Worrying about dying at an early age
- Losing interest in normal activities
- Physical symptoms like headaches and stomachaches
- Irritability with outbursts of anger
- Problems concentrating
- Acting younger than is appropriate
- Increased alertness to the surrounding environment

How to help:

- If possible, seek counseling for the child.
- Support the child and give him attention.
- Make sure the child feels safe.
- It is very important that you allow the child to speak, draw and write about the event.
- Tell the child that the traumatic event was not his fault; don't let him blame himself for what happened.
- If possible, allow him to act younger than his age by letting him sleep with the lights on or with a favorite toy if it makes him feel better.

Abuse

Abuse occurs when a caretaker, relative, or someone else does something, or neglects to do something that causes harm to the child. This could take the form of sexual, emotional, or physical abuse, and **neglect**. Children may heal faster from the physical damage than the emotional damage caused by these types of abuse.

Neglect: failure to take care of a child's physical and emotional needs.

Common symptoms of abuse:

Physical Symptoms:

- Any injury that can't be explained, or the explanation doesn't make sense.
- Genital pain or bleeding, or the presence of a sexually transmitted infection.
- Abdominal pain, or stomach aches with no apparent medical reason.

Behavioral Symptoms:

- Fearful behaviors like nightmares or fear of the dark
- Depression
- Bedwetting
- Attempts to run away
- Age-inappropriate sexual behavior
- Sudden change in self confidence
- Trouble in school
- Failure to gain weight, or sudden increase in weight gain
- Desperately affectionate behavior or socially withdrawn
- Big appetite, loading plate full of food and not eating it all, or hoarding food
- Shies away from touch or flinches when touched

How to Help:

- Get counseling or medical help if possible.
- Don't deny the problem, or act disgusted when a child tells you about an abusive situation; instead, listen and remain calm, showing no emotion if possible.
- Let the child talk about the abuse in her own words without interrupting.

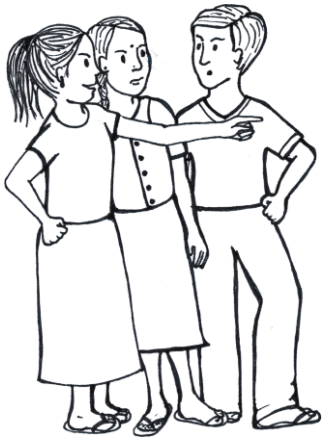
- Take what she says seriously; it takes a lot of courage for a child to tell you about the abuse.
- Reassure the child that she did nothing wrong, and that what happened to her was not her fault.
- Don't force the child to talk or show you her injuries.
- Find out what the child wants from you and how you can help her.
- Let the child know that it's okay to feel scared, hurt, confused, and angry.
- Support the child and let her know you are glad that she told you about the abuse.
- Make sure that the child feels safe and assure her that the abuse won't happen again.

Bullying

Childhood bullying can be physical as well as verbal. It occurs when children are singled out and others are mean and violent towards them. They may be called names, have rumors or lies spread about them, be teased, as well as hit, bitten, punched, or kicked. Children bully each other for a variety of reasons, including: to make themselves feel better or superior, to make themselves more popular with other children, or because they don't like something about the other child. Children who are bullies are often victims of abuse themselves and may be depressed and angry, so they bully someone else. It is important that you help the child who is being bullied as well as talk with the bully to prevent it from happening again.

Common symptoms of bullying:

- Physical injuries such as bruises and scrapes
- Avoiding or dreading certain situations or other children
- Anxiety
- Loss of appetite
- Trouble sleeping
- Losing interest in normal activities



How to help:

- If the child is willing to talk about it, be supportive and encouraging.
- Encourage the child to seek help from adults who are near when the bullying happens, such as a caregiver or a teacher.
- Teach the child to stand up for herself by telling the bully to leave her alone, by walking away from the situation, and staying near her friends.
- Teach the child never to respond with violence or mean words, because the bully wants that response.
- Discourage the children who are bullying, and let them know that it will not be tolerated.
- Watch children while they are playing together. The playground is often where bullying occurs.
- If available, seek counseling.

It is NOT necessary to discipline children with violence, or even the threat of violence. This only serves to teach the children that violence is acceptable. It is particularly harmful to slap a child's face. Even threatening to hit a child, without actually hitting them, is emotionally harmful. Sticks have no place in disciplining a child. Children need to feel safe, especially with you.

A good resource for child discipline is:
www.indiachildren.com/growing/1TO2Y/discipline.htm

For more information about mental health, visit:
www.nmha.org/go/information/we-educate,
and www.nami.org

Notes

5. COMMON ILLNESSES AND CONDITIONS

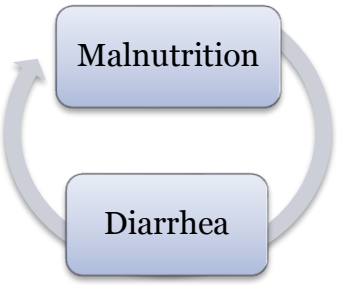
Children's immune systems are not fully developed, so when they are exposed to new diseases, their bodies do not yet know how to fight against them. Children are also more prone to touching and putting things in their mouths that may make them sick. This is why various forms of illness are simply a normal part of childhood. In a healthy child, common childhood illnesses build up the immune system and make the child stronger in the long run. However, if a child is already suffering from malnutrition, is not practicing good hygiene, has not been vaccinated, or already has a serious illness like HIV/AIDS, common illnesses may cause serious harm. That is why it is important to treat all childhood illnesses and use the preventive methods described in Chapters 1-3 to make sure children grow up to be strong, healthy adults.

The illnesses and conditions discussed in this chapter are both common and widespread, especially in children. This does *not* mean that they do not deserve attention and care. Many of these illnesses can be quite dangerous, and even deadly, in certain circumstances. When a child has one or more of these diseases, it is important to monitor the child's recovery carefully, to make sure that it doesn't become serious and endanger the child's life. If you have any doubts, or become overwhelmed trying to help when many children catch a common illness, seek help from a health worker, nurse, or doctor.

Diarrhea

Diarrhea is more common in children than in adults and the effects can be VERY serious to a child's health, especially if he or she is malnourished. Diarrhea is also extremely dangerous for children whose immune systems are compromised due to HIV/AIDS.

Malnourished children are more likely to die from diarrhea than those who are well nourished. Diarrhea itself can be partly to blame for malnutrition. If malnutrition already exists, diarrhea can make it worse very quickly.



So diarrhea and malnutrition can cause each other, and make each other worse in a terrible cycle. This is yet another reason why good nutrition is so important: it both prevents *and* treats diarrhea. **Diarrhea is responsible for more than 1 million child deaths in India every year!**

Common symptoms of diarrhea:

- Loose, watery stools
- Frequent bowel movements, sometimes for several days

Treatment:

- **Usually no medicine is needed to treat diarrhea. It can be cured successfully in the home**, even if the cause is unknown. By keeping the child well-hydrated (drinking enough water) and meeting nutritional needs, she should get well in a few days.
- **Nutrition, Nutrition, Nutrition:** When a child has diarrhea, food passes through her system before her body can use all the nutrients, so it is important that she eats plenty of nutritious food. Give a child with diarrhea nutritious food many times a day— especially if she only eats a little at a time. If she won't eat, keep trying until she can.

Dehydration: Excess loss of water from the body, which occurs during sickness and especially with diarrhea.

- **A child with diarrhea must drink lots of liquids**. If the diarrhea is severe or there are signs of **dehydration**, give the child a rehydration drink (see page 43). Have the child take several swallows every few minutes. Coconut water from green coconuts is an excellent option. You can also give thin cereal porridge or gruel, teas, soups, or plain water to rehydrate a child.
- An underweight child should eat **plenty of nutritious foods** while she is sick, but also extra after she feels better. If she stops eating because she feels too sick or is vomiting, she should try to eat again as soon as she can.
- If an underweight child has diarrhea that lasts for several days or keeps returning, try giving her at least 5 or 6 small meals each day, instead of 3 larger meals. Avoid greasy or fatty foods, too much fruit, and foods with a lot of seasoning. Good foods to try are rice, crackers, potatoes, milk, eggs, chicken, beans, and lentils. Often, no other treatment is needed unless there are symptoms of severe dehydration and malnourishment.
- If the diarrhea lasts longer than a week, or the child shows signs of severe dehydration or malnutrition, take her to a medical provider.

Prevention:

- Although diarrhea is caused by many different things, the most common sources are malnutrition and infection. **With proper hygiene and enough nutritious food, most diarrhea can be prevented**.
- Make sure children are eating a balanced diet full of nutritious foods.
- Everyone in the hostel must wash their hands frequently and properly for 30 seconds with soap and water. Hand washing is especially important after using the bathroom, before eating or handling food, after playing with animals, and after taking care of a sick or injured person. This prevents a lot of disease from spreading to other people.
- Diarrhea can also be caused by unsafe water. Make sure your water comes from a clean source, is filtered, or boiled before drinking or preparing foods with it.
- Safely prepare foods by washing them with clean water and cooking them thoroughly before eating them.

Teach children to inform an adult if they are experiencing diarrhea. That way, it can be treated early if necessary.

Diarrhea at a glance…

- ✓ **Diarrhea can be treated in the home under normal conditions.**
- ✓ **Diarrhea is not always contagious, but it can be: children with diarrhea can give it to others if they do not practice good hygiene.**
- ✓ **Children must wash their hands with soap and water frequently, especially after going to the bathroom and before eating**
- ✓ **Children with diarrhea should avoid helping with meals.**
- ✓ **Children with diarrhea can eat and sleep with others if they are otherwise healthy, and are practicing good hygiene.**
- ✓ **Severe diarrhea may require medical attention.**

Dehydration

Dehydration is a dangerous lack of water in the body. It occurs when the body loses more water than it takes in, often because of diarrhea or vomiting. When a child dies from diarrhea, it is likely that dehydration is actually the cause. Dehydration can happen when a child is suffering from a serious illness, and if he is too sick to take in sufficient liquids. It can also happen when a person has been playing or working in the hot sun all day without getting enough to drink.

Anyone can become dehydrated, but it happens quicker and more dangerously in small children. **Any child suffering from diarrhea is also in serious danger of becoming dehydrated.**

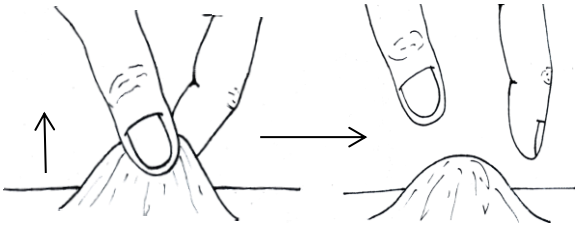
Common symptoms of dehydration:

- The child is very thirsty, and drinks eagerly
- Little to no urine (pee) or dark yellow urine
- Very sudden weight loss
- Dry mouth
- Sunken eyes, and no tears
- In infants, sagging of the 'soft spot' or *fontanel*
- Loss of elasticity or stretchiness of the skin
- Lethargy (tiredness)

Common symptoms of severe dehydration:

- A weak, rapid pulse
- Fast, deep breaths
- Fever
- **Seizures**

Seizures: physical symptoms such as spasms, jerking movements, fits, and loss of consciousness that result from abnormal brain activity.



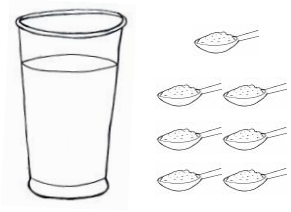
To see if a child is dehydrated, take his forearm and *gently* grasp a piece of his skin between two fingers. If the skin fold **does not** fall right back to normal, the child is very dehydrated. Provide rehydration solution IMMEDIATELY!

Oral Rehydration Treatment*

This rehydration drink helps to prevent or treat dehydration, especially in severe cases of diarrhea:

- Oral rehydration treatment (ORT) was developed in 1986 in Kolkata and Dhaka.
- Diarrhea is responsible for nearly ¼ of all deaths of children under the age of five.
- ORT saves the lives of an estimated one million children every year.

1. Wash hands with soap and water.
2. Fill a **clean** container with 1 liter of clean water.
3. Put ½ teaspoon of salt into the liter of water. It should taste less salty than tears.
4. Stir 6 teaspoons of sugar/molasses into the salt water.



If available, add ½ cup of fruit juice, coconut water, or mashed banana to each drink for flavoring and to add potassium which will help the child accept more liquids and food.

Give the dehydrated child small sips of this drink every five minutes, day and night, until he begins to urinate normally.

An older child who is dehydrated needs three or more liters a day of ORT. A young child usually needs at least one liter per day, or one glass for each watery stool. Keep giving the drink often in small sips, even if the child vomits. If vomiting does occur, wait 10 minutes and begin giving ORT again.

Make a new batch of the rehydration drink every 24 hours, even if the child has not finished the bottle.

****The rehydration drink does not stop diarrhea directly, but prevents the body from drying out so that it can heal itself.****

Green coconut water works great too!

Prevention and Treatment:

- When a child has diarrhea, it is important to act quickly to keep her hydrated.
- Give lots of liquids to drink: a *rehydration drink* is best. Giving the child coconut water from a green coconut is also a good and inexpensive way to

rehydrate a child. You can also give the child a thin cereal porridge or gruel, teas, soups, or plain water.

- Keep giving food if the child is more than four months old. As soon as the child will accept food, give frequent feedings of nutritious foods she likes and will eat readily.
- If available, give the child the doctor-recommended dose of zinc supplements.
- Seek medical help if dehydration worsens or you see any signs of severe dehydration.

Dehydration at a glance…

- ✓ **Children who are dehydrated can be treated inside the home under normal circumstances.**
- ✓ **Dehydration is not contagious: children who are dehydrated can't spread it to others.**
- ✓ **Children who are dehydrated can eat and sleep with other children.**
- ✓ **Severe dehydration needs medical treatment.**

Heat Exhaustion

Heat exhaustion occurs when a child has prolonged exposure to heat and humidity without drinking enough water. Children and adults who work, play and sweat a lot in hot weather are at risk of suffering from heat exhaustion. Children are especially at risk during the hot months in India.

Common symptoms of heat exhaustion*:*

- Skin becomes very pale
- Weakness or fainting
- **Nausea**
- Skin is cool and moist.
- Large pupils
- Body temperature is normal (no fever)
- Rapid and weak pulse

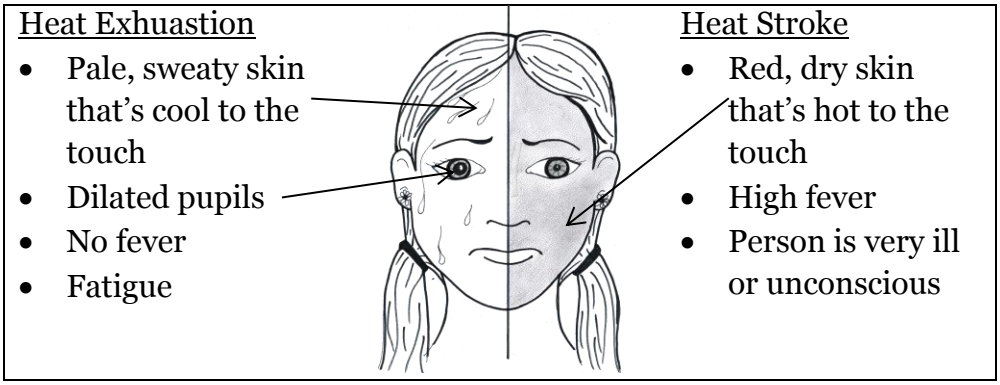
Nausea: Feeling the need to vomit.

Treatment:

- Have the child lie down in a cool place (or in the shade on a hot day).
- Raise her feet and rub her legs.
- If she is conscious (awake), give her a salt-water drink: mix 1 teaspoon of salt into a liter of clean water.

Prevention:

- When working or playing in the heat make sure children are drinking plenty of water.
- If a child feels too warm, have her sit in a cool place or in the shade to avoid getting warmer.
- Have the child take frequent breaks to avoid overexerting herself in the hot sun.



Heat stroke is different from heat exhaustion. See page 129 for First Aid information for heat stroke.

Heat exhaustion at a glance…

- ✓ **Heat exhaustion can be treated in the home without medicine under normal circumstances.**
- ✓ **Heat exhaustion is not contagious: children with heat exhaustion can't spread it to others.**
- ✓ **Children suffering from heat exhaustion can eat and sleep with other children.**

Fever

The average person has a normal body temperature of 37°C. When a person's body temperature is too high, she has a ***fever***. Fever itself is not an illness, but could be a sign of many different illnesses. It is not always necessary to do anything for a fever, because the fever is the body's way of fighting germs. Sometimes it is best to let the body fight. ***A high fever (above 39°C)*** can be extremely dangerous though, especially for a small child. Monitor the child's temperature often with a thermometer. If you do not have a thermometer to take a temperature reading, feel the child's forehead with the back of your hand. A child with a fever will have skin that feels hot to the touch compared to yours. You can also look for other symptoms of fever, listed below.

Common symptoms of fever:

- An internal temperature above 37°C
- Sweating
- Shivering
- Headache
- Body aches
- Loss of appetite
- General weakness

Never wrap a child in clothing or blankets when he or she has a fever.

Treatment for a moderate fever:

1. Uncover the child completely. Small children should remain undressed (if possible) until the fever goes down. Fresh air or a breeze is also helpful to a person with a fever and can help lower it.

2. Give ibuprofen or acetaminophen (*Tylenol*) to lower fever if the child is uncomfortable or in pain. Be careful to give children the correct dose. **Never give a child aspirin when she has a fever!** Giving a child aspirin when she has a fever can cause a very dangerous illness called **Reye's Syndrome**.

Reye's Syndrome: A serious illness in children that causes swelling of the brain and liver. Children with viral illnesses and fevers should never take aspirin.

3. Give the child lots of clean water, juices, or other liquids to drink. The child should be urinating regularly. If she doesn't pass much urine, or the urine is dark yellow, give the child more liquids, more frequently. See the rehydration drink on page 43.

4. If it is possible, find and treat the underlying cause of the fever.

5. If a child still has a fever after five days, s*he needs to be taken to a doctor*, even if she feels and looks okay.

High Fevers

A high fever can be very dangerous for a child if it is not lowered quickly. It can cause permanent brain damage (including paralysis and mental slowness), seizures, and even death.

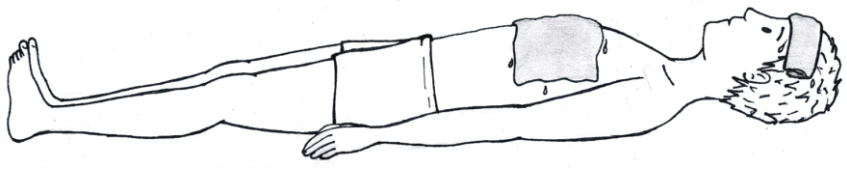
Common symptoms of high fevers:

- A temperature higher than 39°C
- Confusion
- **Hallucinations**
- **Convulsions**
- Irritability
- Sweating
- Shivering
- Headache
- Body aches
- Loss of appetite
- General weakness

Hallucinations: False or distorted sensory experiences, such as seeing or hearing something that is not real.

Convulsions: Seizures. Sudden contractions or movements of muscles

Treatment for a high fever above 39°C:



1. Put the child in a cool, ventilated place, remove as much clothing as possible, and fan him with fresh air if possible.
2. Pour cool (not too cold) water over him, or put rags or cloth soaked in cool water on his chest and forehead. Do this every two hours until the fever goes down below 38°C.

3. Make sure he drinks plenty of cool (not cold) water.
4. Give ibuprofen or acetaminophen in the correct dosage.
5. Seek ***urgent*** medical attention if the fever exceeds 41°C, or if the person falls unconscious or begins having seizures (fits, convulsions), and continue cooling the person with water until you reach the hospital.

Fever at a glance…

- ✓ **Fevers can be treated in the home without medicine under normal circumstances.**
- ✓ **The fever itself is not contagious but the cause of it may be.**
- ✓ **Children with fevers should wash their hands with soap and water frequently.**
- ✓ **Children with fevers should not eat and sleep next to others.**
- ✓ **If a high fever does not go down after the suggested treatment, the child needs immediate medical attention.**

Headaches

A headache is a very common ailment. Sometimes a headache is nothing more than a headache, but it can also be a symptom of another illness. If you notice a child getting headaches often, or headaches that last a long time, the child may need to see a doctor to find out if there is a more serious underlying problem.

Headaches often occur with common illnesses like colds and fevers. If the child has other symptoms of a cold or fever, the headache will probably go away as the child recovers.

Make sure the child did not suffer a head injury. See page 129 to learn more about concussions.

If the headache is very severe, check for other signs of meningitis (see page 101) right away. Meningitis is a life-threatening illness that requires *immediate* medical attention.

Migraines

A **migraine** is a type of very severe headache that affects some people, and can also affect children. Migraines usually occur on one side of the head only, but sometimes cause pain on both sides of the head. Migraines may also include nausea, vomiting, blurred vision or seeing spots, sensitivity to sound and light, and they can last for a few hours up to a few days. The main difference between a migraine and a headache is the severity of the pain, but migraines may also have throbbing pain rather than steady pain.

Migraine: A very severe headache that may also include other symptoms

Some common causes of headaches and migraines in children (though there are many more):

- Genetics or natural predisposition; migraines often run in families
- Dehydration
- Poor nutrition; Sometimes certain foods can cause headaches for those who are sensitive to them. These foods are known as *triggers*
- Not getting enough sleep
- Too much stress
- Too much sun or physical activity

Treatment:

- Often the headache will go away on its own
- Drink plenty of water
- Give ibuprofen or acetaminophen in the appropriate dosage (aspirin is okay for adults)
- Make sure the child gets plenty of rest and is eating a balanced diet
- Have the child lie down in a cool, dark place
- Put a cool compress on the child's forehead or back of the neck

Prevention:

- Eat a healthy, balanced diet and practice healthy behaviors like getting plenty of rest, staying active, and limiting stress
- Avoid caffeine
- Help the child keep a record of his or her headaches, including how long the headache lasts, and what the child did, ate, and drank that day before, during, and after the headache. Over time, this may help determine the cause of the headaches so they can be prevented.

Headaches and migraines at a glance:

- ✓ **Make sure the child's headache is not caused by a head injury or trauma.**
- ✓ **Headaches can be treated in the home, often without medicine.**
- ✓ **Headaches are not contagious, but if the headache is a symptom of another illness, that illness may be contagious.**
- ✓ **Children with headaches and migraines do not need to be separated from other children, however the child may prefer to be in a quiet, dark place until the headache goes away.**
- ✓ **If a child has chronic headaches, he or she may need to visit a doctor or clinic to make sure there isn't a more serious underlying cause.**

The Common Cold

Colds are caused by hundreds of different viruses that are passed around to many people, all causing similar symptoms. Colds are easily passed from person to person through the droplets that are released from your mouth or nose when you sneeze, cough, talk, and even breathe. When these droplets are breathed in, consumed (ingested), or get into someone's eyes they can cause sickness. Symptoms are generally mild and go away on their own in about one to two weeks. Symptoms are similar to the flu (influenza), but are usually milder. Fevers rarely accompany colds.

The common cold is very hard to avoid during certain parts of the year. It is likely that this illness will sweep through your home at least once a year. This is not usually cause for alarm, but it is important to help the children (and often yourself as well) to recover by helping them follow these simple guidelines as best as they can.

Common symptoms of colds:

- Runny nose
- Cough
- Sore throat
- Sneezing
- Mild headache
- Sometimes pain in the joints
- Sometimes mild diarrhea

Treatment:

- Drink plenty of water and get lots of rest.
- Ibuprofen or acetaminophen will help to relieve body aches and headaches. *Do not give antibiotics for a cold; it may be harmful to do so!*
- Gargle warm salt water to ease a sore throat, or, if the child is willing, use a neti pot. *Be careful not to swallow salt water!*
- Drinking citrus fruit juices such as orange juice or lemonade is helpful; if the child likes limes, he could suck on a lime.
- If a cold lasts more than a week, or if the person develops a fever, coughs up a lot of phlegm (mucus), has shallow, fast breathing or chest pain, he could be developing pneumonia or bronchitis and should see a doctor immediately.

Prevention:

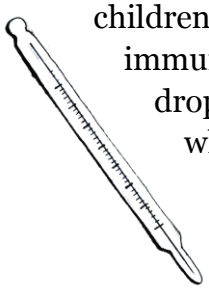
- Wash hands very frequently.
- Get enough sleep.
- Eat plenty of nutritious foods.
- Eat limes, oranges, tomatoes, and other fruits that contain vitamin C. Juices are also helpful.
- A sick child should sleep and eat separately from others, and be careful to stay away from babies to prevent the cold from spreading.
- Sneeze or cough into your arm, NOT your hand.
- Discard all tissues, or keep your handkerchief clean and prevent it from touching other people or shared items because the snot and mucus can transmit disease.

Common cold at a glance…

- ✓ **Colds are contagious: a child with a cold can spread it to others.**
- ✓ **A child with a cold should not eat or sleep near others.**
- ✓ **A child with a cold should wash his hands with soap and water frequently, especially after blowing his nose, or coughing or sneezing into his hands.**
- ✓ **Colds can be treated in the home under normal circumstances.**

Influenza ("The Flu")

The flu is a virus that has similar symptoms to a cold. Like a cold, the flu affects the nose, throat and lungs, but the symptoms are often more severe and harmful, and usually include a moderate to high fever. The flu is especially dangerous for children under the age of five, the elderly, and those with a compromised immune system (for instance, those with HIV/AIDS). It is spread by droplets of saliva and mucus that come out of the mouth and nose when people sneeze, cough, talk and breathe.



Most people will get better in about two to seven days, but serious complications can arise, such as pneumonia and bronchitis. These serious complications require urgent medical attention.

Common symptoms of the flu:

- Fever
- Chills
- Cough
- Sore throat
- Runny or stuffy nose
- Body aches
- Headaches
- Fatigue
- Vomiting
- Diarrhea

Treatment:

- Get plenty of rest.
- Drink plenty of liquids to prevent dehydration.
- Take ibuprofen or acetaminophen for fever, headaches, and body aches.
- Treat for high fevers as described on page 47.
- Breathe in the steam from a pot of boiling water, take cough medicine, or suck on a lozenge for coughs.
- Gargle warm salt water for a sore throat. *Do not swallow salt water!*

Prevention:

- Children six months old and up can get the annual flu vaccine.
- Wash hands frequently with soap and water, especially after coughing, sneezing, or blowing your nose.
- If you are well, avoid close contact with people who have flu symptoms
- Get plenty of rest.
- Eat plenty of nutritious foods.
- Sneeze or cough into your arm, NOT your hands.
- When sick, stay away from other people as much as possible for the first week.

- Discard all tissues, or keep your handkerchief clean and prevent it from touching other people or shared items because the snot and mucus can transmit germs.

Influenza at a glance…

- ✓ **There is a vaccine for influenza; it is usually good for just one year, because the flu virus changes every season.**
- ✓ **The flu is contagious: children with the flu can spread it to others.**
- ✓ **The flu can be treated in the home under normal circumstances.**
- ✓ **Children with the flu should not sleep or eat with others.**
- ✓ **If symptoms of pneumonia, bronchitis, or another infection occur, seek medical attention.**

Pneumonia

Pneumonia is an **acute** lung infection that can be caused by a variety of sources. It can be a virus or a bacterial infection. Pneumonia often follows another respiratory illness such as the measles, the flu, whooping cough, or bronchitis — or any very serious illness, particularly in young children and elderly people. People who have HIV/AIDS are also at high risk of developing pneumonia. If you suspect a child has pneumonia, it is important to take her to a doctor as soon as possible.

When a disease is considered "acute," this means it comes on rapidly and can be very serious. The opposite of acute is "chronic," which means that the illness lasts a long time, may come on slowly, or can go away for a while and come back again later on.

Common symptoms of pneumonia:

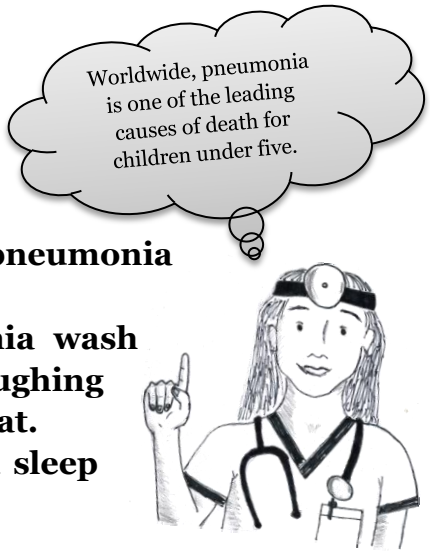
- Shallow, fast breathing, sometimes with grunting and wheezing
- Nostrils may spread or "flare" with each breath
- Sudden chills followed by high fever
- Cough (with mucus that may be yellow, greenish, rust colored or bloody)
- Refusing liquids or food; unable to eat and drink
- Chest pain
- The child is very weak and **listless**
- Cold sores often appear on the face, lips, or in the throat
- A very sick child who takes more than 50 shallow breaths in one minute may have pneumonia.

Listless: a serious lack of energy. A listless child is usually too sick even to cry or complain.

Treatment:

- Give ibuprofen or acetaminophen to lower the fever and relieve pain.
- Give plenty of liquids. If the child will not eat, give her liquid foods or the rehydration drink found on page 43.
- Ease the cough and loosen mucus by giving the child plenty of clean water to drink and having her breathe in the steam from a pot of boiling water.
- Medicine is necessary to cure pneumonia.
- Medical treatment is needed urgently when the child is having a hard time getting air, is not able to eat or drink, or her skin turns bluish, and her chest is drawn in with each breath.

Pneumonia at a glance…



- ✓ **There are vaccines for diseases that cause pneumonia.**
- ✓ **Pneumonia requires medical attention.**
  Pneumonia may be contagious: children with pneumonia can spread it to others.
- ✓ **It is important that children with pneumonia wash their hands frequently and especially after coughing or sneezing into their hands, and before they eat.**
- ✓ **Children with pneumonia should not eat and sleep with others.**

IMPORTANT NOTE: The type of medicines that treat pneumonia and many other bacterial infections are called *antibiotics*. These are drugs that attack bacteria in the body that cause disease. It is VERY IMPORTANT to take all antibiotics exactly the way they are prescribed by the doctor. This means continuing to take them as directed, sometimes even after you feel better and think you do not need them anymore. If you stop taking antibiotics early, some of the bacteria will still be left in your body (though not enough to cause symptoms), and they will grow and multiply. These bacteria will have a resistance, or immunity to the antibiotics, so if you get sick again, the medicine *will not work*, and the disease will be much harder to cure. This is known as *drug resistance*, and it has become a very serious problem with several diseases, including MRSA, (p. 77), malaria (p. 94) and tuberculosis (p. 108).

Viral fever

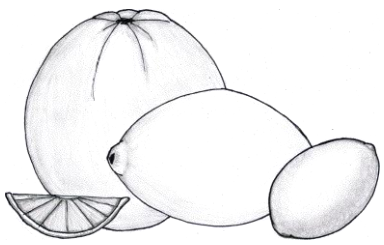
Viral fever occurs after the change of seasons, such as after the monsoon season. It is very contagious and is spread by the wet droplets that come out of the sick person's mouth or nose when he coughs, sneezes, talks, or blows his nose. Sickness occurs when you breathe these droplets, or touch these secretions and then do not wash your hands before doing things like touching your mouth, eating, or touching your eyes. The sickness can last from three days to a week, but the effects can last longer. Symptoms differ from person to person, but all are accompanied by fever.

Common symptoms of viral fever:

- Fever
- Sore throat
- Fatigue
- Muscle and/or joint aches
- Chills
- Runny or congested nose
- Headaches
- Red and/or burning eyes
- Cough
- Breathlessness
- Skin rash

Treatment:

- Drink plenty of liquids.
- Get plenty of rest.
- Eat plenty of nutritious food.
- Gargle warm salt water for a sore throat. *Do not swallow salt water!*
- Eat foods with vitamin C like limes, oranges and tomatoes.



Prevention:

- Wash your hands frequently with soap and water especially after coughing or sneezing into your hand.
- Cover your mouth with your arm when you cough or sneeze.
- Discard all tissues, or keep your handkerchief clean and prevent it from touching other people or items because the snot and mucus carries the disease.
- Drink plenty of fluids.
- Eat plenty of nutritious foods.
- Get plenty of sleep.
- Wash all utensils and dishes that a sick person has used with soap and water.

Viral fever at a glance…

- ✓ **Viral fever is contagious: children with viral fever can spread it to others.**
- ✓ **Children with viral fever must wash their hands frequently, especially after blowing their nose, or coughing and sneezing into their hands.**
- ✓ **Children with viral fever should not eat or sleep near others.**
- ✓ **Children with viral fever can be treated at home under normal circumstances.**

Chikungunya

Chikungunya is a viral infection that is spread by mosquitoes. Symptoms may be similar to other viral or mosquito-borne diseases.

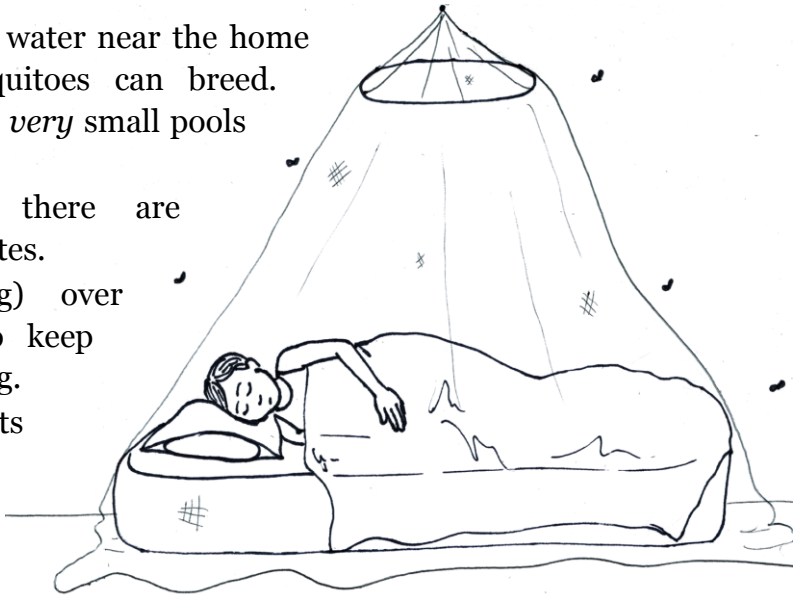
Common symptoms of chikungunya:

- Joint pain and swelling
- Fever
- Headache
- Fatigue
- Nausea
- Vomiting
- Muscle pain
- Rash
- Fatigue and joint pain lasting weeks after other symptoms have gone away

Treatment:

- Get plenty of rest
- Drink plenty of fluids
- Give medicine to help with fever and joint pain, such as acetaminophen and ibuprofen (not aspirin)

Prevention:



- Get rid of ALL standing water near the home or school where mosquitoes can breed. Mosquitoes can breed in *very* small pools of water!
- Avoid places where there are mosquitoes to prevent bites.
- Place screens (netting) over doors and windows to keep mosquitoes from entering.
- Sleep under mosquito nets to avoid being bitten by mosquitoes while sleeping.
- Wear long sleeves and pants in areas where there are mosquitoes.
- If a child is infected, keep him inside for the first 3 days of sickness. During the first 3 days, he can infect any mosquito that bites him with chikungunya. These mosquitoes can then spread the disease to other people.

Chikungunya at a glance…

- ✓ **Chikungunya is contagious through mosquitoes. Children with chikungunya should try to avoid being bitten by mosquitoes for the first 3 days of sickness. Mosquitoes can transmit the disease from the sick child to another person.**
- ✓ **Children with chikungunya can eat and sleep next to others after the first three days.**
- ✓ **Chikungunya can be treated in the home under normal circumstances.**

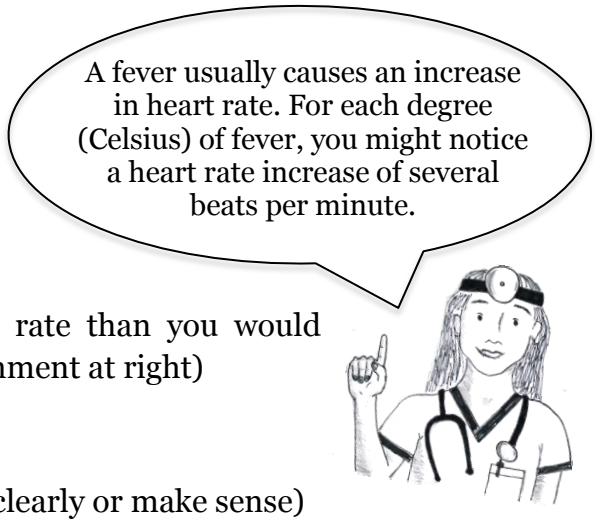
Typhoid fever

Typhoid fever is an intestinal (gut) infection that affects the whole body. The disease lives in feces and is spread to people when they eat or drink something that is contaminated by feces containing typhoid bacteria. Often the disease occurs in large waves of sickness, called *epidemics*.

Common symptoms of typhoid fever:

First week:

- Cold and flu symptoms (see pages 50-52)
- Headache, sore throat, and a dry cough
- The fever goes up and down, but rises a bit more each day, reaching 40°C or more
- Inability to drink or take liquids
- Vomiting
- Diarrhea
- Constipation (being unable to have a bowel movement)



Second week:

- High fever, but with a lower pulse rate than you would normally expect (see the doctor's comment at right)
- Pink spots may appear on the body
- Quivering or shaking
- *Delirium* (the person does not think clearly or make sense)
- Weakness, weight loss, dehydration

Third week:

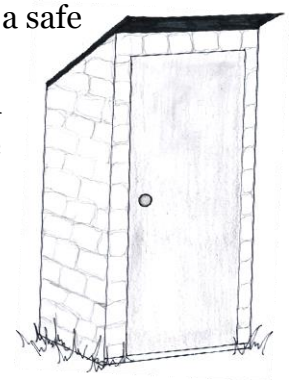
- If there are no additional complications, the fever and other symptoms begin to go away slowly.

Treatment:

- Medical assistance is needed to treat typhoid fever.
- Give plenty of liquids to prevent dehydration, including juices, soups, or a rehydration drink (see page 43)
- Give nutritious foods, in liquid form if necessary.
- The child should stay in bed until the fever is completely gone, if possible.
- If stools contain blood, the child experiences pain when her stomach is touched or moved, or you think she is developing pneumonia (see page 54 for symptoms), take her to the hospital at once.

Prevention:

- Wash your hands with soap and water frequently, and especially after you go to the bathroom and before you eat or prepare food.
- Make sure that food and water are not contaminated by human feces.
- Only defecate in latrines, and always use latrines that are a safe distance away from sources of drinking water.
- During flooding or other natural disasters make sure you only drink clean water. Boiling may be the only way to be certain your water is clean and safe to drink.
- If there are suspected cases of typhoid in your community, boil all of your water before drinking.



Typhoid fever at a glance…

- ✓ **Typhoid is contagious: children with typhoid can give the disease to others.**
- ✓ **It is very important that children with typhoid wash their hands frequently especially after they use the bathroom and before they eat. It is important that children with typhoid not handle and prepare foods that are to be eaten by others.**
- ✓ **Children with typhoid can eat and sleep next to other children if they are maintaining proper hygiene.**
- ✓ **There is a vaccination to prevent typhoid.**

Typhoid fever is often confused with a disease called *typhus*. Typhus is transmitted by lice, fleas and ticks. Those suffering from typhus experience cold-like symptoms, a rash starting in the armpits and then spreading to the rest of the body, and then lasting for about two weeks. Medication is needed to treat typhus.

Did you know?

Allergies

An allergy is the body's overreaction to an **allergen**. Exposure to allergens typically doesn't bother most people, but those with an allergy may experience moderate to severe symptoms. When some people are exposed to things like dog hair, pollen, mold, certain foods and medications, they suffer allergic reactions. Some allergies are seasonal, meaning that they are worse during certain parts of the year. And some allergies are so severe that they can cause **death in minutes** if the child does not receive very prompt medical care. This life-threatening type of allergic reaction is called **anaphylactic shock**. It may happen when someone with a severe allergy is exposed to that particular allergen.

Allergen: A substance foreign to the body that can cause a reaction, such as pollen or mold. An allergen may not produce the same reaction in every person.

Common symptoms of allergies:

- Sneezing
- Coughing
- Runny nose
- Itchy eyes
- **Anaphylactic Shock**:
  - Rapid, weak pulse
  - Constricted airways
  - Skin rash
  - Nausea
  - Vomiting
- Itching
- Rash
- Swelling

Anaphylactic Shock: A severe, immediate, whole body reaction to an allergen. It may involve several symptoms, but all are serious and require medical attention.

Treatment:

- Take an **antihistamine**.
- For anaphylactic shock: seek *immediate* medical treatment.

Antihistamine: medicine that treats an allergic reaction

Prevention:

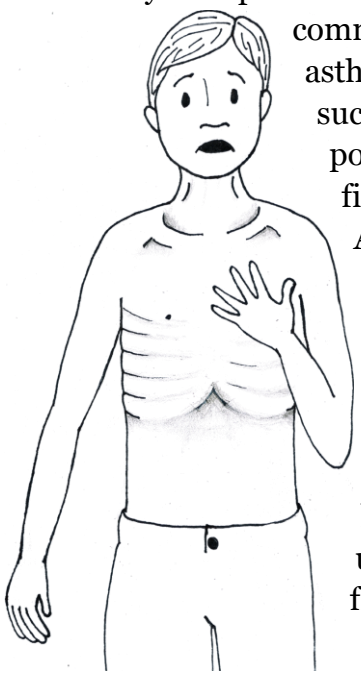
- Pay attention to allergy symptoms, so you can learn what causes them.
- Avoid breathing, touching, or consuming a known allergen.
- Keep the home clean by sweeping and dusting often.
- Air bedding in the sun often to remove dust.
- Remove all animals from the home if a child is allergic to animal hair.
- Take antihistamines when you know you will be exposed to something you are allergic to.
- Tell doctors what medicines you are allergic to, if known.
- Wear shoes in the grass if you are allergic to insects like bees.
- Read the ingredients in packaged foods to avoid eating a food allergen.

Allergies at a glance…

✓ **Allergies are not contagious.**
✓ **Children with allergies can eat and sleep near others.**

Asthma

A child with asthma has fits, sometimes called "attacks," where he has trouble breathing. This is because the child's airway has become swollen and narrow, making it hard to get enough oxygen. The onset of asthma is often in childhood and may be a problem throughout life. It is not a contagious illness, but it is more common in children who have family members with asthma. An asthma attack may be triggered by eating or breathing allergens such as dust, pollen, and animal hair/dander, or from air pollution from things such as cigarette smoke, indoor cooking fires, burning fields or trash, factory smoke, or car exhaust. Anxiety or worrying can also cause an asthma attack.



The number of people (especially children) with asthma is growing around the world. In fact, **asthma is the most common chronic disease in children.** The increase in asthma is mostly due to increased pollution from things like cars and factories. Asthma may be worse for those living in cities because the air tends to be more polluted in urban areas. If trash is burned, be sure it is done far away from children, and particularly when there is no wind.

Common symptoms of asthma:

- A hissing or wheezing sound, especially when the child breathes out (or *exhales*).
- When breathing in (*inhaling*), the skin covering the ribs and collar bone may tighten as the child struggles for air.
- If the child cannot get enough oxygen, his fingernails and lips may turn blue, and the veins in his neck may swell.
- Asthma may be worse during certain months of the year, at night, and in places with heavy air pollution.
- No fever; temperature remains normal (around 37°C), unless the child also has another illness at the same time.

Treatment:

- Asthma is a little bit different for everyone. A doctor can help a child learn to manage his asthma.
- If asthma gets worse inside, the child should go outside to get some fresh air and take deep, calm breaths.
- Drink plenty of liquids. This loosens mucus in the airway and helps with breathing. Sitting and breathing calmly in a steamy room may help. If this is not possible, breathe in the hot water vapors from a pot of boiling water.
- During an asthma attack, use a rescue inhaler containing *salbutamol*. A doctor can prescribe a rescue inhaler for a child with asthma. This medicine should be inhaled as deeply as possible so that the medicine reaches deep into the lungs.
- If a child has frequent attacks, or gasps for breath while he is walking or doing mild exercise, also use a controller inhaler. A controller inhaler is used daily to prevent attacks and prevent symptoms in day to day activities. Inhalers should always be prescribed by a doctor and used according to the doctor's advice.

Prevention:

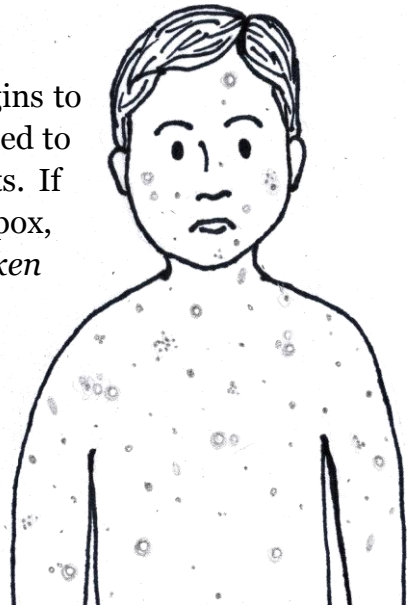
- Children with asthma should avoid eating or breathing things that are known to bring on asthma attacks.
- The home (especially sleeping, dining, and play areas) should be kept clean.
- Make sure chickens, dogs, goats, and other animals stay outside.
- Air bedding outside to get rid of dust and other irritants.
- Drink at least 8 glasses of water every day. This prevents mucus from building up in the child's airway.

- If possible, take a regular medicine prescribed by a doctor to prevent asthma attacks.
- DO NOT SMOKE! Smoking makes asthma much worse, and of course causes many other health problems. Do not allow others to smoke near children, especially children with asthma.

Asthma at a glance…

✓ **Asthma is not contagious.**
✓ **Children with asthma can eat and sleep near others.**
✓ **Children with asthma may need to take medicine daily.**

Chicken pox



The chicken pox virus primarily affects children and begins to show symptoms two to three weeks after a child is exposed to the disease. Chicken pox can be much worse for adults. If you or another caretaker have not already had chicken pox, have someone else care for the child and *get the chicken pox vaccine for yourself* to prevent future infection.

Common symptoms of chicken pox:

- Small, itchy red spots appear on the body
- Spots become small blisters that pop and scab
- Spots then spread to the face, arms, and legs
- Spots, blisters and scabs may occur at the same time
- Mild fever

Compress: A cloth dipped in either hot or cold clean water that is placed over a wound.

Treatment:

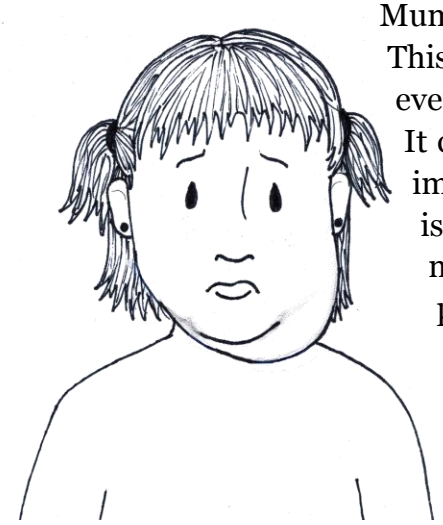
- Chicken pox usually goes away in about a week.
- Bathe the child daily with soap and warm water.
- Try to keep the child from scratching; to calm an itchy child, apply a cool **compress** soaked in water from boiled and strained oatmeal.
- Cut the child's fingernails very short and keep them clean to reduce the chance of infection if the child scratches.

- Keep spots, blisters and scabs as clean as possible.
- If scabs become infected, apply a warm compress and then apply an antibiotic ointment.

Chicken pox at a glance…

- ✓ **Chicken pox can be treated in the home under normal circumstances.**
- ✓ **Chicken pox is extremely contagious; children with chicken pox can spread it very easily to others who have not had the disease.**
- ✓ **Adults who have not had chicken pox should be very careful.**
- ✓ **Children with chicken pox should not eat and sleep near children who have not had chicken pox.**
- ✓ **There is a vaccine for chicken pox.**

Mumps



Mumps is a contagious disease that is caused by a virus. This virus is usually not serious, and many people do not even realize that they have it if the symptoms are mild. It can cause serious complications in rare cases, so it is important to try to prevent mumps outbreaks. Mumps is spread through the droplets of *saliva* (spit) and mucus that come out of the mouth when an infected person coughs, sneezes, or talks. Mumps can also be spread through sharing items like cups or eating utensils, or if an infected person touches a surface without washing his hands, and then an uninfected person touches the same surface and later rubs her eyes or nose, or eats without washing her hands.

Common symptoms of mumps:

- Fever
- Headache
- Sore muscles
- Fatigue
- Loss of appetite
- Swollen glands under the ears and jaw
- Sometimes swollen cheeks

Treatment:

There is no specific treatment for mumps. Give pain relievers for headaches and sore muscles, and follow treatment to reduce fever (see page 47). If you suspect a child has mumps, it is important to minimize his contact with other children.

Prevention:

There is a vaccine to prevent mumps. It is not required in India, but is available. It is usually combined with the vaccination for measles and rubella (German measles) in a vaccination known as "MMR" – measles, mumps, rubella.

If a child has mumps, there are some things you can do to prevent transmission:

- Minimize close contact between an infected child and a healthy child.
- Keep the child home from school for 5 days.
- Don't share drinks, or allow children to do so.
- The child should wash his hands often, and cover his mouth with his elbow.

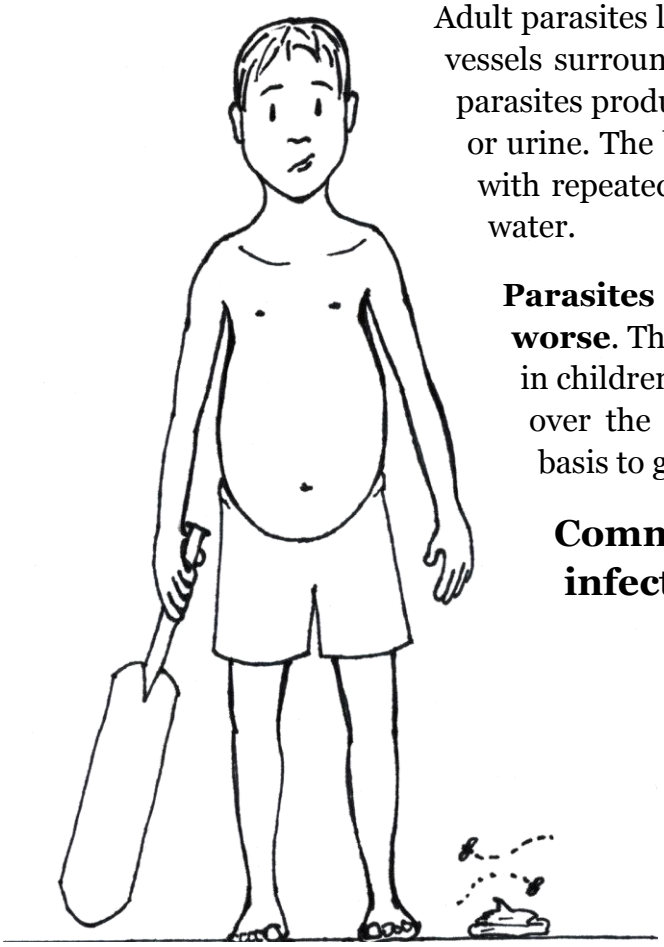
Mumps at a glance…

- ✓ **Mumps is contagious; children with mumps can spread it very easily to others who have not had the disease.**
- ✓ **Children with mumps should not eat and sleep next to people who have never had it before.**
- ✓ **Mumps can be managed in the home under normal circumstances.**
- ✓ **There is a vaccine for mumps.**

Internal Parasites

Parasites are organisms that need to live and feed on another animal or human (called a *host*) in order to survive. Though they usually do not kill the host (but sometimes do), they can cause many problems.

Parasites can enter the body in many different and creative ways. The most common parasites are transmitted when the parasite's eggs leave an infected person through his urine or feces and contaminate the ground, or another person's food or water. Depending on the type of parasite, they may enter the body through the skin, or by being ingested (which means they are consumed along with food or drinks).



Adult parasites live in the intestines, liver, and/or blood vessels surrounding the urinary tract. Inside the host, parasites produce eggs that will leave the body in feces or urine. The burden of parasitic infection gets worse with repeated contact with the contaminated soil or water.

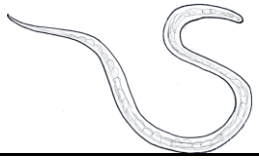
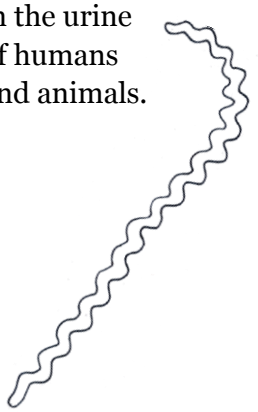
Parasites make malnutrition and anaemia worse. They also inhibit growth and development in children so it is very important that all children over the age of one take medicine on a yearly basis to get rid of parasites.

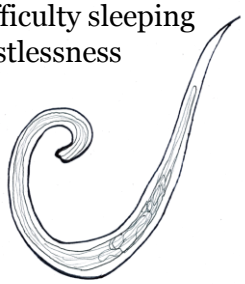
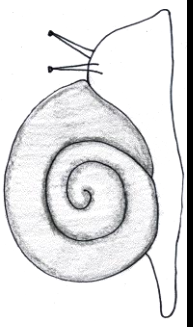
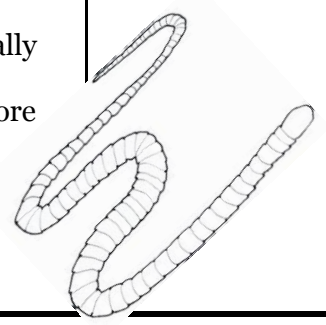
Common symptoms of parasitic infection:

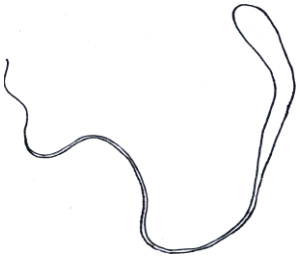
- Stomach pain
- Coughing
- Fever
- Vomiting
- Diarrhea
- Loss of appetite
- Swollen belly
- Blood in feces or urine
- Fatigue and listlessness
- Stunted growth
- Lower cognitive abilities

Common parasitic infections to be aware of:

Parasite	***Common Symptoms***	***Prevention***	***Treatment***
Amebiasis: A tiny organism that lives in water and is released by human feces.	• Diarrhea, with or without blood in the stool. • Stomach pain and cramping • Usually no fever	• Avoid all contact with feces. • Wash hands frequently, especially after using the bathroom and before preparing foods. • Wash and cook foods thoroughly.	• Seek medical attention for medicine. • Drink plenty of water to prevent dehydration

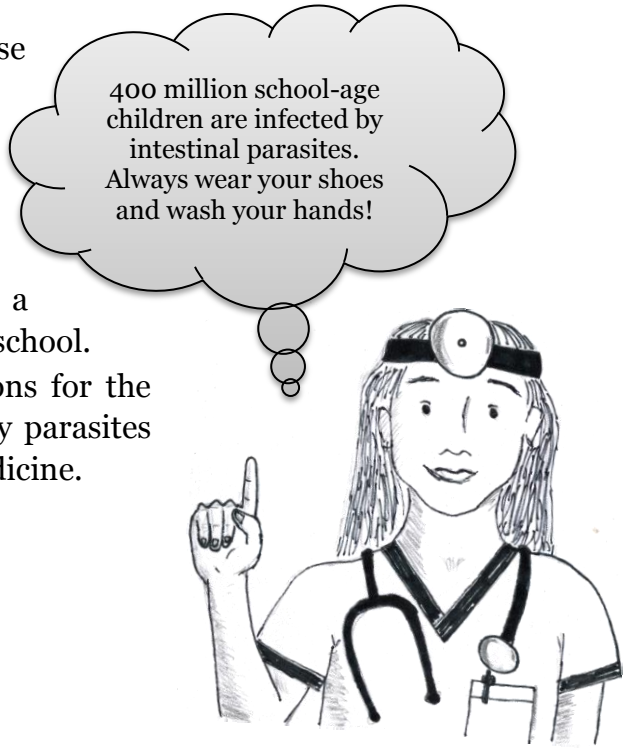
Parasite	***Common Symptoms***	***Prevention***	***Treatment***
Cryptosporidiosis "Crypto": A microorganism that lives in the intestines (guts) of humans and animals.	• Stomach cramps or pain • Profuse diarrhea • Dehydration • Nausea/Vomiting • Fever • Weight loss • 1-2 weeks of symptoms	• Avoid swimming in water that might be contaminated • Wash hands frequently, especially after using the bathroom. • Avoid consuming infected water, soil, or food.	• Seek medical attention for those with an unhealthy immune system. • Drink plenty of liquids to prevent dehydration.
Giardia: A tiny organism that lives in the intestines and feces of humans and animals. 	• Diarrhea • Stool that floats or is bubbly or frothy • Expelling gas • Stomach cramps • Dehydration • Symptoms may last 2 -6 weeks, and may come and go	• Wash hands frequently, and especially after going to the bathroom and before preparing foods. • Avoid contact or consuming water infected with giardia. • Cook foods thoroughly.	• Seek medical attention for medicine. • Drink plenty of fluids to prevent dehydration.
Hookworm: A worm that attaches to the gut of animals and humans. It enters the body through the soles (bottom) of the feet. 	• Itching • Rash • Diarrhea • Abdominal pain • Loss of appetite • Weight loss • Anaemia • Fatigue • In children: slow physical and mental development	• Always go to the bathroom in a latrine. • **Always wear shoes in public spaces**, near animals, and in places where there have been feces. • Always wash your hands after using the latrine.	• Seek medical attention for medicine. • Drink plenty of liquids to prevent dehydration.
Leptospirosis: A bacterium that lives in the urine of humans and animals. 	• High fever • Headache • Chills • Muscle aches • Vomiting • Jaundice (yellowing of the skin and eyes) • Red eyes • Abdominal pain • Diarrhea • Rash	• Avoid drinking, swimming or wading in water where animals urinate. • Avoid contact with animals that are sick. • Avoid touching urine of animals that can spread the disease. • Always wear shoes when around animals and near water that could be infected with leptospirosis.	• Seek medical attention for antibiotics. • Without medical treatment, the disease can last for months. • Drink plenty of fluids. • Get plenty of rest.

Parasite	***Common Symptoms***	***Prevention***	***Treatment***
Pinworm: A roundworm that lives in the intestines of infected humans and infects others when they contact feces with pinworm eggs in it.	• Itching around the anus • Difficulty sleeping • Restlessness 	• Wash hands frequently, especially after using the toilet and before handling foods • Avoid contacting feces. • Wash all clothing, bedding, objects, and surfaces that the infected person has touched frequently. • Keep fingernails short.	• Seek medical attention for medication. • Bathe daily. • Wear clean underwear every day. • Wash clothes and towels frequently. • Don't scratch.
Roundworm: A major type of intestinal parasite that lives in the intestines of infected humans	• Large, swollen belly • Itching all over • Weakness • Intestinal discomfort • Sometimes pink/ white worms 20-30 cm longwill be visible in the stool.	• Wash hands frequently, especially after using the bathroom and before preparing or handling foods. • Always use latrines. • Protect food from flies and other insects.	• Seek medical attention for medicine. 
Schistosomiasis*: A worm that infects humans when they come in contact with fresh water where schistosomiasis lives in snails. **Not common in India*	• Rash and itchy skin days after being infected. • Fever, chills, cough, and muscle aches within 1-2 months of infection. • Inflammation scarring in the intestine, bladder and liver. • In children who are chronically infected: anaemia, malnutrition, difficulty learning.	• Avoid skin contact, including swimming and bathing, with water that is known to be contaminated with schistosomiasis. • Do not urinate or defecate in or around water, only in latrines. • Only drink clean water that has been filtered or boiled.	• Seek medical attention for medicine. 
Tapeworm: A worm that lives in the gut. Humans are infected after eating under-cooked meat from cows or pigs that have consumed the eggs. Eggs form cysts in the meat of cows and pigs and infect humans if the meat isn't cooked properly.	• Abdominal pain • Loss of appetite • Weight loss • Tapeworm segments in the feces of the infected person. • **Cysticercosis: When tapeworm larvae form cysts on the brain and muscle tissue, causing seizures. This is very serious and needs medical attention.**	• Cook meat thoroughly. • Always go to the bathroom in a latrine, not on the ground. • Wash your hands frequently, especially after going to the bathroom and before eating or handling food. 	• Seek medical attention for medication.

Parasite	***Common Symptoms***	***Prevention***	***Treatment***
Whipworm: A worm that lives in the large intestine of humans and infects them when they consume soil that has whipworm eggs in it.	• Frequent, painful passage of stool that is a mixture of mucus, water, and blood. • In children: slow mental and physical development. 	• Avoid contacting feces-contaminated soil. • Always defecate in a latrine, never in places that people may come in contact with. • Wash your hands frequently, especially after using the bathroom and before eating or coming into contact with food. • Always wash fruits and vegetables in clean water before consuming them, especially if they were grown in soil that was fertilized with manure.	• Seek medical attention for medication.

Treatment:

- As you can see, parasites can cause many problems. Fortunately, many of these infections can be controlled by taking just one pill once or twice each year. These pills are quite inexpensive, and give children a better opportunity to succeed in school.
- Seek medical care for medications for the specific parasitic infection. Many parasites can be treated with the same medicine.



Prevention:

- Only drink clean water that has been boiled or filtered.
- **WEAR SHOES** when outside, in public places, near animals, and near water that may have feces or urine in it.
- Practice safe hygiene and sanitation: only go to the bathroom in latrines, and wash your hands and body frequently.
    - If children known to have intestinal parasites are using a toilet, the bathroom must be **thoroughly cleaned VERY often – at least three times each day**. This will help prevent the parasitic infection from spreading to other children.
- Cook foods thoroughly.

Parasites at a glance…

- ✓ **Children with parasites can eat and sleep next to others only if they are practicing safe hygiene.**
- ✓ **Children with or without parasites need to wash their hands frequently, especially after using the bathroom and before handling food or eating.**
- ✓ **Parasites are contagious: children with parasites can give them to others if they are not practicing safe hygiene.**
- ✓ **There is medicine that can be taken to treat parasites.**

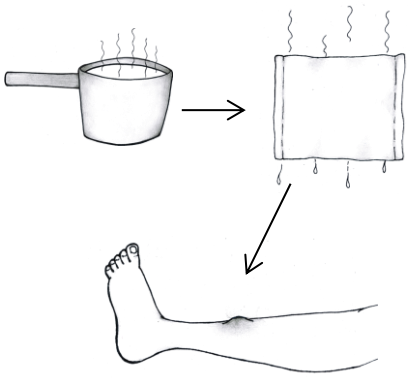
Skin conditions

The skin is the largest organ of the body. It is the body's first line of defense against invading germs so it must be taken care of to stay healthy and prevent infection. When the skin is damaged by burns, cuts, or insect bites, it provides a place where infection can occur and make children sick. Proper treatment of wounds and damage to the skin prevents infection and the spread of disease.

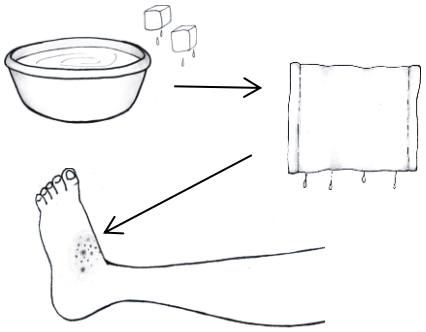
Although many skin problems need specific treatment, there are a few general measures that often help. Refer to the illustrations on the following page for general skin care guidelines.

⇨ *General rules for treating skin problems*

If the irritated area is hot, painful, and/or oozes pus, put a **warm** compress on it.

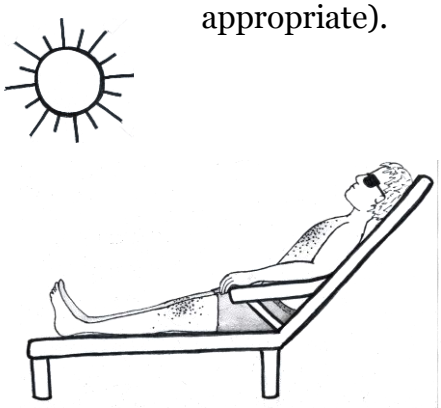


If the irritated area is itchy, stings, and/or oozes clear liquid, use a **cold** compress.



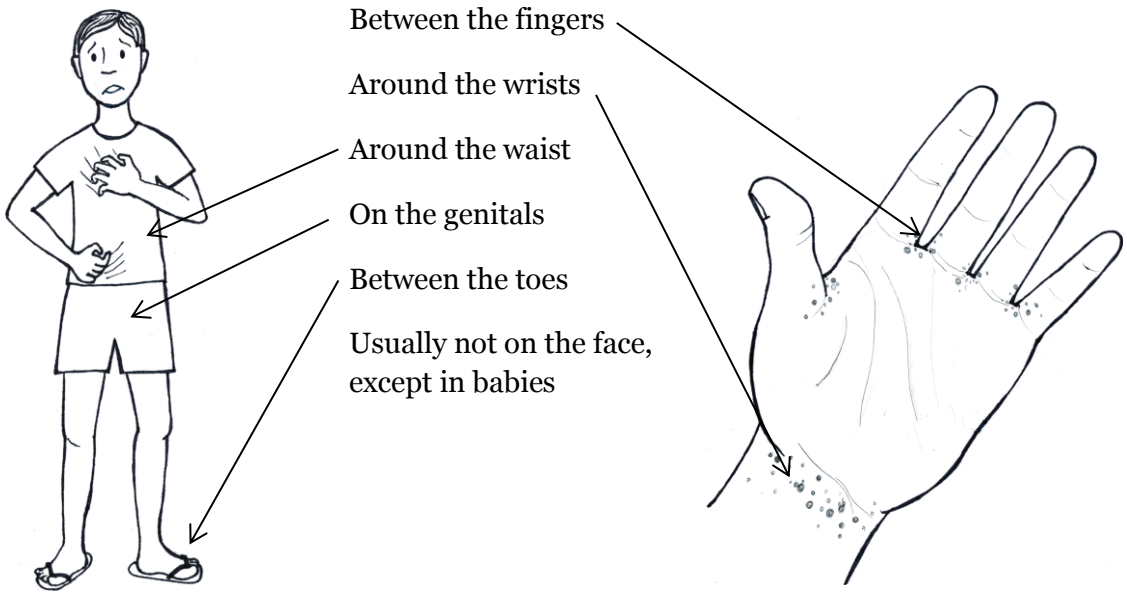
If the irritated area is often exposed to the sun, protect it from the sun.

If the irritated area is usually covered by clothing, expose it to the sun for 10 to 20 minutes, 2 to 3 times a day (if it is appropriate).



⇨ *Scabies*

Scabies is caused by small bugs that tunnel under the skin. It is more common in children than adults. It is also very easily spread, especially when there are many children in one place. It causes itchy bumps that may appear all over the child's body, but are most common in these areas:



Scabies is spread by touching skin, clothes and bedding that have scabies on them. Scratching can cause a skin infection, leading to bigger, pus-filled sores, and sometimes causing swollen **lymph nodes** or fever. The first time a child gets scabies, it can take several weeks for the first signs to appear. If the child has had scabies before, they will appear much faster, in less than one week.

Lymph Nodes: small glands located throughout the body that are an important part of the immune system. They filter out dead bacteria, viruses, and other dead tissue from the lymphatic fluid. When there is an infection in the body, they swell up and produce a cell called a lymphocyte that helps protect the body from sickness.
See page 121 for more details about lymph nodes.

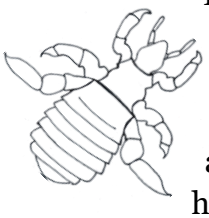
Treatment:

- If one child gets scabies, everyone in the home should be monitored, and treated if necessary.
- It is very important that everyone practice personal hygiene by bathing and wearing clean clothes every day.
- Keep fingernails short to reduce the spread of infection, and damage to the skin caused by scratching.
- Wash clothes and bedding regularly, and hang them in the sun.
- Visit a doctor and get a prescription for a cream containing *permethrin*.
- First, bathe the child vigorously with soap and hot water. Then rub the cream into the whole body (but not the child's face, unless it is affected). Leave it on for 10 to 14 hours, and then bathe the child again. Have him put on clean clothes and use clean bedding. Repeat this process after one week.
- The itching and rash may continue for up to two weeks after the treatment. If it lasts longer, the child may still have scabies, or the treatment may not have worked. If the signs have not gone away after two weeks, repeat the treatment or try a different one. Remember to repeat the preventive actions as well.

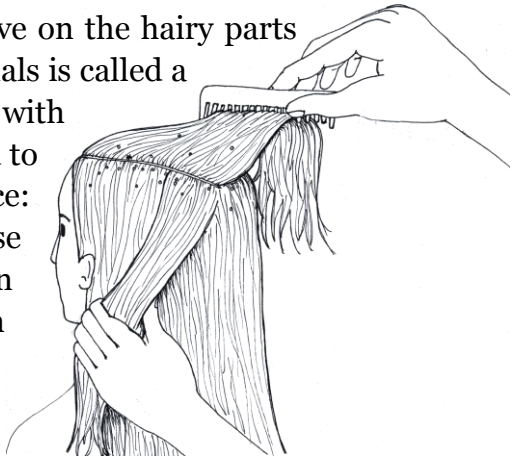
Scabies at a glance…

- ✓ **Scabies is contagious: children with scabies can easily spread the condition to others.**
- ✓ **Children with scabies should *not* eat or sleep near others.**
- ✓ **Children with scabies can be treated in the home, if you have access to a treatment cream containing permethrin.**
- ✓ **There is medicine to treat scabies.**

⇨ *Lice*



Lice are small crab-like animals that live on the hairy parts of the human body. One of these animals is called a *louse*, but when a person is infected with many of them, the condition is referred to as "lice." There are three types of lice: head lice, body lice, and pubic lice (these are also known as a sexually transmitted infection called *crabs*). Lice cause itching, and may cause skin infections or swollen lymph nodes. You can avoid lice in your home by practicing and promoting good personal hygiene, and washing all clothing



and bedding regularly. Check the children's hair regularly. If more than one child has lice, treat them all at once, otherwise the lice will infect others.

Common symptoms of lice:

- Itchy *scalp* (the skin underneath your hair)
- Presence of lice (small, dark insects) crawling on the scalp and on the hair.
- Small white eggs (called *nits*) attached to strands of hair near the scalp.

Treatment:

- Practice personal hygiene by bathing often, and washing clothes and bedding frequently, especially if lice have been discovered in the home.
- There are a few options for treatment, but careful combing is very important in each case:
    - Scrub hair vigorously with shampoo for 10 minutes. Rinse well, and comb thoroughly with a fine-toothed comb to get rid of all lice *and* their eggs. Make sure that *all* eggs are removed from the hair. Repeat each day for two weeks.
    - Soak hair with warm vinegar water (equal parts vinegar and water) for 30 minutes, and then comb thoroughly with a fine-toothed comb.
    - Buy a lice treatment kit and follow the directions on the package. Comb the eggs out when finished.
- For body lice: soak in a bath of hot water every day for 10 days. After soaking in hot water, wash thoroughly with soap and rinse well. Use a fine-toothed comb on any hairy places to get rid of lice and their eggs.
- Combing all the lice and eggs out of the hair is the best way to prevent lice from coming back and spreading. Rubbing oil through the hair makes combing easier, and may make the eggs easier to see and remove.

Prevention:

- **Do not let a child with lice sleep near others**, or the lice will spread very fast to many children.
- Treat children with lice immediately so they don't spread it to others.
- Practice personal hygiene by bathing regularly and washing clothes and bedding often.

Lice at a glance…

- ✓ **Lice are very contagious: children with lice can very easily spread the condition to others.**
- ✓ **Children with lice should not eat and sleep near those without lice.**
- ✓ **Lice can be treated in the home.**
- ✓ **There is medicine to treat lice.**

⇨ *Bedbugs*

Bedbugs are small, flat, insects that live inside mattresses, clothing, bedding, and furniture. Anyone can get bedbugs because they hide in very small spaces and can be transported long distances. Bedbugs don't transmit disease, but they can certainly be a source of discomfort and annoyance, and they are very hard to get rid of.

Common symptoms of bedbugs:

- Bites appearing in lines or groups that are itchy, red, and slightly swollen.
- Bites usually happen at night.
- Trouble sleeping.
- Small, oval-shaped, black bugs in the bedding or furniture.
- Rust-colored spots on bedding/clothing from their blood-filled feces.

Treatment:

- Wash bites with soap and clean water.
- Apply **antiseptic** cream to the bites to prevent infection.
- Avoid scratching the bite because it can cause an infection. Cut children's fingernails short so that they do less damage if they scratch.
- Thoroughly wash all bedding and bedclothes.
- Pour boiling water on mats, cots and bed frames.
- Sprinkle sulfur on mattresses, cloth furniture, and rugs and do not use them again for three weeks. Be sure to remove the powder completely before using them again.
- If bedbugs are found, treat the area immediately so that they don't spread and cause an infestation.

Antiseptic: an agent (such as a cream or ointment) that reduces the chances of infection by killing germs.

Prevention:

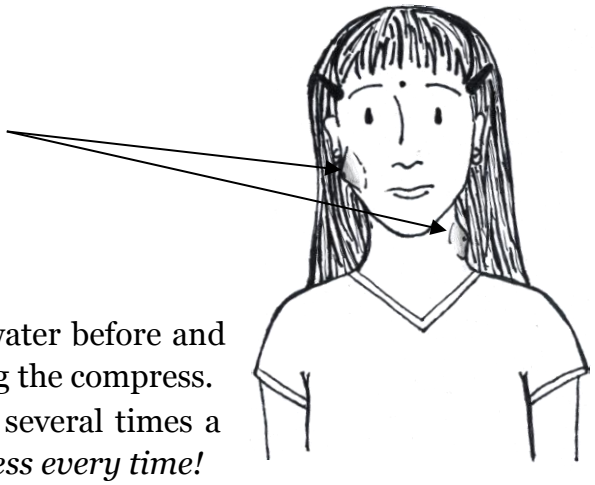
- Wash bedding regularly.
- Put bedding, mats, and cots in the sun often to prevent bedbug infestations.
- Inspect bedding regularly to get rid of bedbugs before they cause an infestation.

Bedbugs at a glance…

- ✓ **Bedbugs can easily spread to other bedding and furniture.**
- ✓ **Chemicals are needed to kill bedbugs.**
- ✓ **Bedbug bites can be treated in the home.**

⇨ *Boils*

A boil is a sack of pus under the skin caused by an infection. A boil could be caused by an infected hair, a wound that punctures the skin, or after an injection from a dirty needle. Boils can occur anywhere on the body, but they are most common on the face, neck, armpit, buttocks, and thighs. A boil is painful and the skin around it becomes red, hot and swollen.



Common symptoms of boils:

- Swollen, painful lump on the skin
- Swollen lymph nodes
- Fever

Treatment:

- Wash your hands with soap and water before and after touching the boil, or preparing the compress.
- Lay a warm compress on the boil several times a day. *Make sure it is a clean compress every time!*
- Gently wash the boil with soap each day, and before putting a bandage on it.
- Cover the boil with a clean bandage between soaks to prevent infection.
- Let the boil break open by itself – **never** break it open or squeeze it to drain the pus because it may cause infection and make it worse. If it breaks open, continue putting a clean, warm compress on the boil.
- If the boil has not gone away after 2-3 days of putting warm compresses on it, cut it open using a **sterile** (not just clean) instrument and continue with the clean warm compresses (this procedure is called *lancing*). If possible, seek medical help to cut it open and drain it to prevent further infection and scarring. You can sterilize a needle or knife by holding it directly over a flame until it becomes red.

Sterile: the absence of all live bacteria and germs; NOT the same as "clean."

- Medical treatment may be necessary if a boil remains for longer than two weeks, if it comes back in the same place, or if it occurs on the face or spine because this may cause more serious infections.

Prevention:

- Practice good hygiene by bathing often, wearing clean clothes, and washing your hands frequently.
- Don't touch a boil without washing your hands afterwards because boils are contagious.

Boils at a glance…

- ✓ **Boils are contagious: children with boils can spread them to others.**
- ✓ **Children with boils can eat and sleep next to other children.**
- ✓ **Children with boils must wash their hands frequently, especially after touching a boil.**
- ✓ **Boils can be treated in the home under normal circumstances.**

⇨ *A special note about MRSA*

A boil might be due to a MRSA infection. MRSA (pronounced "mersa") stands for *methicillin-resistant Staphylococcus aureus*. "*Staph*" bacteria are very common, and cause many different types of infections. Usually, these infections do not cause serious harm, but sometimes they can if the bacteria are resistant to treatment (see page 102 for more information about resistance to antibiotics).

At first, a MRSA infection may look like an insect bite, or may appear at the site of a cut, scratch or other skin lesion. MRSA infection can spread to others who touch an infected wound, or after sharing personal items that may have touched an infected area. If you notice a child has a boil or other skin infection that doesn't go away with normal treatment, have the child tested for MRSA, and check other children for infections.

Treatment of MRSA:

- MRSA needs to be treated by a health care provider. Regular medicines like penicillin will NOT work due to drug resistance.
- Once you are prescribed antibiotics for MRSA, watch for improvement. If the infection does not appear to be getting better within a few days, call the doctor.

Prevention of MRSA:

The best way to prevent MRSA is to practice good hygiene:

- Wash hands often, and make sure children do so as well.
- Keep cuts and other skin lesions clean and covered
- Do not share personal items like towels
- Do not touch another person's wound without gloves, and explain to children why they shouldn't touch someone else's wound as well.

⇨ *Hives*

Hives are a specific allergic reaction caused when some people eat, breathe, or touch certain things.

Hives are thick, raised skin patches that may look a bit like a bee sting and can be very itchy. Hives may come and go very quickly, or move to different places around the body. Pay attention to any reactions caused by certain medicines, especially penicillin. A rash or hives may appear within just a few minutes or as long as 10 days after the medicine was given.

If a child gets a rash, hives, or experiences any allergic reaction after taking or being injected with any medicine, discontinue it and never give the child that medicine again! This is very important to prevent the danger of allergic shock or anaphylaxis (see page 60), which can be life-threatening. Keep records of children's allergies, so you can inform the doctor if that child is sick in the future.

Medicines prescribed for those who are HIV-positive may cause a rash. Sometimes this can be avoided by taking only a small amount of medicine at first and slowly increasing the amount to the full dose.

Treatment:

- Bathe in cool water or apply cool compresses to the affected area.
- A compress with cool oatmeal water will calm itching. Boil some oatmeal or starch, strain, and use the leftover water once it has cooled.
- An antihistamine will also help with itching.

Hives at a glance…

- ✓ **Rash, welts, and hives can be treated in the home under normal circumstances.**
- ✓ **Allergic reactions causing rashes, welts, and hives are not contagious: children can't spread them to others.**
- ✓ **Children with allergic reactions caused by rashes, welts, and hives can eat and sleep next to others.**
- ✓ **There is medicine to treat rashes, welts, and hives.**

⇨ *Other skin conditions*

Poison ivy, sumac, stinging nettles, and many other plants can cause blisters, burns, or hives when they come into contact with the skin. Some caterpillars and other insects can cause similar reactions. Rashes or sore spots that ooze liquid may be caused by contact with certain objects for people who are allergic to those objects. Rubber shoes, jewelry, watchbands, ointments, perfumes, or soaps may cause problems for some people.

Treatment:

- These skin irritations go away by themselves if the person can avoid contacting the object that causes them.
- A pasty mix of oatmeal and cool water calms itching.
- Ibuprofen or antihistamines may also help with the symptoms.
- To prevent infection, make sure to keep any irritated areas clean.

Other skin conditions at a glance…

- ✓ **Stings, burning, and itching caused by plants or other things can be treated in the home under normal circumstances.**
- ✓ **Children with stings, burning and itching can eat and sleep next to others.**
- ✓ **Stings, burning, and itching are not contagious: children can't spread it to others, but some irritants cause rashes that can spread to other parts of the body if you scratch them.**

⇨ *Leeches*

Leeches are small, blood-sucking worms that live in fresh water and in damp vegetation (plants). They are commonly found in swamps, ponds, and other cool, wet areas. They can burrow under and through clothing and attach to the skin. They only suck a small amount of blood, but they can swell to become much larger than their original body size.

Common symptoms of leech bites:

- Leech saliva (spit) contains chemicals that numb the pain of being bitten, so you may not know that a leech has bitten you.

- Leech saliva contains a chemical **anticoagulant**. If you notice a wound that continues to ooze blood for hours, it may be a leech bite.
- A bite that itches may be from a leech.

Anticoagulant: A chemical that prevents blood from clotting keeps a cut from forming a scab.

Treatment:

- A leech will fall off naturally after about 20 minutes when it is done with its blood meal.
- To remove a leech, gently push it off the bite on its skinny end first by putting your fingernail or another flat, thin object between the skin and the leech. Then do the same to the other end. **Do not** pull the leech off, burn it off, or pour chemicals on it. This may cause the leech to spit up its stomach contents, which may contain bacteria, or its teeth may remain lodged in the skin, causing infection.
- Wash the wound area with clean water and soap.
- If swelling occurs, put ice or a cold compress over the wound.
- The wound will continue to bleed for some time because chemicals in the leech bite prevent blood from clotting. Put a clean bandage over the wound to catch the blood and prevent infection and then apply constant pressure until it stops bleeding.
- Avoid scratching the bite because it may cause infection. Keep children's nails short to avoid damage when they scratch.
- If the leech is attached inside the mouth, nose, ear, or genital area, it is important to seek medical treatment.
- Normally a leech bite will cause no further damage if it is kept clean. If you notice excessive redness, swelling, or fever, seek medical treatment.
- Some people experience an allergic reaction to leech bites: red, itchy blotches all over the body, swelling in other parts of the body (especially the eyes and lips), feeling dizzy, and difficulty breathing. If a child experiences any of these symptoms, **take him to a hospital immediately!**

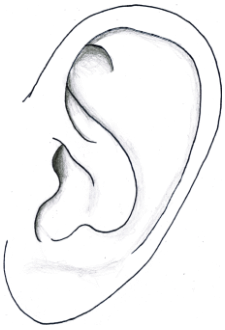
Prevention:

- Avoid wet forests, swamps, and ponds where leeches are known to live.

Leeches at a glance…

- ✓ **Leech bites can be treated in the home under normal circumstances.**
- ✓ **Children with leech bites can eat and sleep with other children.**
- ✓ **Leech bites are not contagious.**

The Ears



Ear infections are very common in young children. They often occur when a child has a cold, or another illness that causes a plugged or "stuffy" nose. An ear infection usually causes an ear ache which can be very painful, and the child may also have a fever. A small child who cries a lot and rubs the side of her head may have an ear infection. Sometimes, by looking in her ear, you can see pus, a sign of infection. It is very important to treat ear infections early.

Treatment:

- Antibiotics are usually needed to treat ear infections.
- Give acetaminophen in the correct dosage for pain.
- You can carefully clean pus out of the ear with cotton, but *do not* leave anything in the ear as a plug, and *DO NOT* insert anything into the ear canal.
- **Gently** pull on the child's ear. If this causes pain, that means the child's ear canal is infected (the ear canal is the tube that leads from the outer ear to inside the ear). If the ear canal is infected, mix one spoonful of vinegar with one spoonful of clean water. Put several drops of this solution into the ear three or four times a day.
- After recovering from an ear infection, a child should not go swimming for at least two weeks. The child should, however, continue to bathe regularly.

Prevention:

- When a child has a cold, teach her to wipe her nose, but not to blow her nose, especially if she has had previous ear infections.
- Do not bottle-feed a baby on her back. Milk can go up her nose and cause an ear infection.

The ears at a glance…

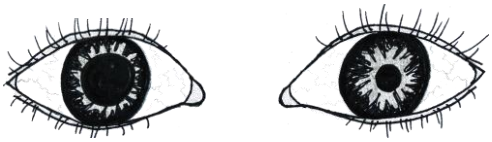
- ✓ **Ear infections themselves are not contagious, but the illness that causes the ear infection is often contagious.**
- ✓ **Children with ear infections can eat and sleep with other children, but they should be careful if they have symptoms of the common cold.**
- ✓ **Antibiotics are usually needed to treat an ear infection.**

The Eyes

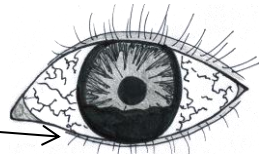
We rely on our eyes for many things – reading, taking in our surroundings, and watching out for our safety. Our eyes are very sensitive and need to be taken care of. After all, we only get two of them! Get medical help fast if any of the following danger signs occurs:

- An injury that cuts or ruptures (goes through) the eyeball itself
- A painful, gray spot on the *cornea* (the clear part that covers the pupil and colored part of the eye), with redness in the eye

- Pain inside the eye
- A noticeable difference in the size of the pupils, along with pain in the eye or a severe headache



- Blood collecting on the inside of the eye



- Sudden, failing vision in one or both eyes
- A white glow or reflection in the pupil. This could be a sign of an eye cancer called *retinoblastoma* or a **cataract**.
- Any eye infection or inflammation that does not get better after 5 or 6 days of treatment with an antibiotic eye ointment

Cataract: A clouding in the eye that can result in blindness if it is not treated.

⇨ *Conjunctivitis ("pink eye")*

Conjunctivitis or "pink eye" is a very contagious eye infection. It occurs when an irritant enters the eye and causes inflammation. Irritants can be viruses, bacteria, allergens, dirt, or feces. Children can easily spread it to others if they are not using safe hygiene practices.

Common symptoms of conjunctivitis:

- Redness, pus, and burning in one or both eyes
- Eyelids are often stuck together when the child wakes up

Treatment:

- First, carefully clean pus from the eyes with a clean cloth moistened with clean water.
- Then apply an antibiotic eye ointment. Pull down the lower eyelid and put a little bit of ointment **inside.**
- **DO NOT** let the tube of ointment touch the eye because this could spread the disease to others.
- Seek medical care under these circumstances:
  - Moderate to severe pain in the eyes
  - Difficulty seeing properly
  - Extreme redness of the eyes
  - Symptoms become worse, or last more than a few days. This may be a sign of a more serious illness.

Prevention:

- Do not let a child with pink eye play or sleep near children who do not have pink eye
- Do not let children share the same towel.
- Avoid touching the eyes whenever possible.
- Wash hands before and after touching eyes to apply medication.
- Wash bedding, especially pillows of the infected person to prevent reinfection and the spread of pink eye.
- Do not let children with pink eye swim with others.

Conjunctivitis at a glance…

- ✓ **Pink eye is contagious: children can very easily spread it to others.**
- ✓ **Children with pink eye should not sleep next to others.**
- ✓ **Children with pink eye should wash their hands frequently, especially every time they touch their eye and before they eat.**
- ✓ **Pink eye can be treated in the home under normal circumstances.**
- ✓ **There is medicine to treat pink eye.**

For more information about these and other common childhood diseases, visit the World Health Organization's website:

www.who.int/topics/en/

Notes

Notes

6. SERIOUS ILLNESSES

The diseases described in this section can all be potentially fatal and require ***immediate*** action. It is important that these illnesses are recognized as serious and treated immediately so the infected child is able to make a full recovery or manage a chronic disease, allowing him to have a healthy, happy life.

Cholera

Cholera (*kol-er-ah*) is a serious bacterial infection in the intestines that causes very bad diarrhea. Cholera is spread through diseased feces that get into food and drinking water due to poor sanitation. You get sick from drinking water or eating food (particularly fish) that has been contaminated by the bacteria. Though cholera is not likely to spread directly from person to person, it is still very important to wash your hands while treating those with cholera. It is critical to begin rehydrating immediately, because cholera causes severe dehydration that can kill a person in as little as one day. If there are cases of cholera in the home or surrounding area, *report it to local health authorities* so it can be managed and contained to prevent more people from getting dangerously sick.

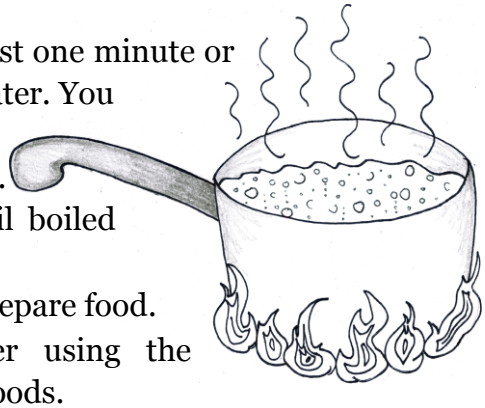
Common symptoms of cholera:

- Profuse, watery diarrhea that looks like rice-water
- Vomiting
- Leg cramps
- Severe dehydration

Treatment:

- Seek medical help immediately.
- **Make sure that the infected child is receiving plenty of fluids** and is drinking the rehydration drink found on page 43. When a child has cholera he loses a lot of water in his diarrhea so it is vitally important that he remains hydrated or else he is at risk of dying very quickly.
- If possible, get antibiotics from a doctor and have the child take all the pills or liquid according to the doctor's directions. Antibiotics allow for faster recovery, and may make the symptoms less severe.

Prevention during an outbreak of cholera:



- Only drink from safe water sources.
- Disinfect your water by boiling it for at least one minute or putting ½ an iodine tablet into 1 liter of water. You can also put two drops of household bleach into one liter of water to disinfect it. Wait 30 minutes before drinking, or until boiled water cools.
- Only use clean water to wash dishes and prepare food.
- Wash hands frequently, especially after using the bathroom and before eating or preparing foods.
- Eat foods that are prepackaged or foods that are freshly cooked and served hot, and drink bottled water if available.

Cholera at a glance…

- ✓ **Seek medical treatment immediately for children with cholera.**
- ✓ **During a cholera outbreak it is very important that everyone wash their hands frequently, especially after going to the bathroom and before eating or preparing foods. Always use soap!**
- ✓ **Cholera is contagious, but it is rarely spread from person to person. A child with cholera can spread it to others if the child is not practicing proper hygiene, but it is more likely that cholera will be contracted from unsanitary food and water.**

Dysentery

Dysentery is a serious form of diarrhea that causes inflammation of the intestines with mucus and blood in the loose stool. Like diarrhea, dysentery can be caused by a variety of factors, but is most commonly caused by a bacterium called *Shigella* or by an **ameba** (also spelled amoeba). Symptoms can range from moderate to severe, and like other types of diarrhea, dehydration is the biggest concern. It is spread from person to person by infected feces, so it is essential to maintain personal hygiene and use safe cooking practices.

Ameba: a tiny organism made up of just one cell. Amebae can be found in stools, and can cause dysentery if ingested due to poor hygiene and sanitation.

Common symptoms of dysentery:

- Diarrhea that contains blood and mucus
- Severe abdominal pain
- Sometimes fever, but not always
- Convulsions
- Expanding belly
- Nausea, chills, and/or vomiting
- Bleeding from the anus
- Loss of appetite and weight loss
- Fatigue

Treatment:

- **It is most important to make sure that the infected child is receiving plenty of fluids** and is drinking the rehydration drink found on page 43. When a child has dysentery, he loses a lot of water very quickly in his stools, so it is vitally important that the water be replaced.
- Make sure the child gets plenty of rest.
- Make sure he also gets plenty of nutritious foods. If he has no appetite, try feeding him nutritious foods he likes in small amounts many times a day.
- Medications are available to treat severe dysentery, but under normal circumstances it can be cured in the home.
- Seek medical attention if the child is showing signs of severe dehydration, convulsions, has an expanding belly, his stomach is tender when touched, or if the dysentery does not go away on its own after several days.

Prevention:

- Wash your hands with soap frequently, especially after using the bathroom and before eating or preparing foods.
- **Always use a latrine**; never defecate on the ground, especially if you are not well. Defecating on the ground can spread disease to others.
- Only drink water that is clean, and has been boiled or filtered.
- Wash fruits and vegetables thoroughly before eating them.
- Maintain personal hygiene by bathing and washing clothing and bedding on a regular basis.
- Avoid contact with people who have dysentery.

Dysentery at a glance…

- ✓ **The cause of dysentery may be contagious: children with dysentery may spread it to others. Keep contact minimal.**
- ✓ **It is very important that children with dysentery wash their hands with soap frequently, especially after going to the bathroom and before eating.**
- ✓ **Children with dysentery should not be allowed to prepare foods, help in the kitchen or wash other children's dishes.**
- ✓ **Children with dysentery can be treated in the home under normal circumstances.**
- ✓ **Medicine and medical treatment is necessary for severe dysentery.**

Hepatitis

Hepatitis is an infection in the liver (an important organ that helps the body to rid itself of toxins). Hepatitis can be caused by many different things, including bacterial and viral infection, drug and alcohol use, or toxins. The three most common types of hepatitis are known as hepatitis A, hepatitis B, and hepatitis C.

Different types of hepatitis:

Hepatitis A:

This is the most common type of hepatitis you will encounter. Hepatitis A is caused by a virus, and it is spread through contaminated feces that get into the food and water supply through poor sanitation. Hepatitis A can also be spread from person to person, so personal hygiene is extremely important. It usually does not cause serious illness, and will go away with lots of rest, good hydration (drinking water), and a balanced diet. **There is a vaccine to prevent hepatitis A**.

Hepatitis B:

Hepatitis B is more serious than type A. It can cause chronic infection often with no symptoms, and can lead to liver failure, liver cancer, *cirrhosis* (scarring in the liver tissue), and eventually death. Hepatitis B is spread through contact with the blood or body fluids of an infected person. This is why it is important to protect yourself when providing first aid, or helping a sick or injured person. Hepatitis B must be treated by a health professional. **There is a vaccine to prevent hepatitis B**.

Hepatitis C:

Hepatitis C is also a serious, chronic illness that can result in cirrhosis, liver failure, and liver cancer, and death. It is spread through blood-to-blood contact with an infected person (such as in blood transfusions, reusing needles, and injection drug use). There are often no symptoms of hepatitis C, so people may not know that they are infected. There is no vaccine for hepatitis C.

Common symptoms of hepatitis A:

- Flu-like symptoms: fever, nausea, fatigue, loss of appetite
- Abdominal pain
- *Jaundice* (yellowing of the skin and white parts of eyes – see below)
- Urine that is dark orange in color
- Feces that are gray

Treatment:

There is no specific treatment for hepatitis A. A child with hepatitis A should get lots of rest, drink lots of fluids, and eat a balanced diet with minimal fatty foods. Chronic hepatitis B and C can sometimes be treated with antiviral drugs after a diagnosis from a doctor, but this treatment is often different for different people.

Hepatitis at a glance…

- ✓ **The cause of hepatitis may be contagious: children with hepatitis A may spread it to others. Keep contact minimal and practice good hygiene.**
- ✓ **There is a vaccine to prevent hepatitis A and B.**
- ✓ **Hepatitis A can usually be treated in the home.**
- ✓ **Medicine and medical treatment are necessary for hepatitis strains B and C.**

Jaundice

Jaundice is a condition that turns the skin and eyes yellow. This yellowing effect happens when the body fails to remove old red blood cells and their byproducts from the system. This can happen for different reasons and may also be accompanied by other symptoms. It is important to understand that *jaundice is not a disease but a symptom:* ***Jaundice is a sign of an underlying illness.***

Common causes of jaundice (in older children and adults):

- Viral infection of the liver (hepatitis A/B/C/D/E)
- Parasitic infection of the liver
- Gallstones

Other causes of jaundice:

- Ingestion of poisonous mushrooms or other poisons
- Immune disorder that mistakenly attacks healthy liver tissue (autoimmune hepatitis)
- Liver damage caused by reduced oxygen or blood flow to the liver
- The body destroys too many blood cells and the liver cannot handle them
- Cancer of the pancreas (rare)

Symptoms:

- Skin and the whites of eyes are yellow
- Inside of mouth is yellow
- Urine is dark or brown-colored
- Stools are pale or clay-colored

Treatment:

- Treatment options vary depending on the underlying cause of the jaundice. The treatment can only begin once a medical professional has diagnosed the actual disease/condition causing the problem.

Jaundice is the result of an underlying medical problem. It is important to seek medical help if you develop jaundice so the underlying cause can be diagnosed and treated.

Kidney Stones

A kidney stone is a hard, rock-like material formed within the kidney or urinary tract. Kidney stones occur when the urine contains high concentrations of certain substances. The concentrated substances create small crystals, which can then become stones. Small kidney stones can pass out of the body in the urine, but if the stone becomes too large, it can block the flow of urine and be very painful.

Common causes of kidney stones:

There are many different causes of kidney stones. They are more common in adults, but can occur in children and teenagers as well. Some risk factors for kidney stones include genetics (kidney stones can run in the family), taking certain medications, or having other illnesses such as urinary tract infections. However, a common cause of kidney stones in children who do not have other risk factors is not drinking enough water. Diet is also an important factor. A diet with too much salt (also called **sodium**) can increase the chances of kidney stones.

Common symptoms:

- Very bad pain in the belly, side of back or groin area. Pain may come and go quickly.
- Blood in urine or abnormal urine color
- Fever and/or chills
- Nausea
- Vomiting

Treatment:

Treatment depends on stone type and the severity of symptoms, but medical attention is needed to determine the course of treatment. If the stone is small, it may pass on its own. Make sure the child drinks between eight and ten glasses of clean water each day to increase urine production.

A change in diet may also be helpful for passing the stone. Decrease the amount of salt in the diet, and limit the amount of spinach, nuts, and wheat.

***If urine is not light yellow or clear, drink more water.**

If the stone is not small enough to pass on its own or if the stone takes more than four weeks to pass or if the patient is experiencing extreme pain, seek medical attention immediately. Medications, or surgery may be needed.

Prevention:

- Stay hydrated
- Limit salt intake to less than 2300 mg per day
- Eat a balanced diet, and avoid processed foods, soda, and added sugars

Malaria

Malaria is a parasitic blood infection that causes a high fever, chills, and shivering. Malaria is spread by mosquitoes, so it is known as a *mosquito-borne disease*. When a mosquito bites a person who has malaria, it sucks up some of the malaria parasites from her blood, and injects them into the next person it bites. People who are HIV-positive are much more vulnerable to malaria than those who are HIV-negative. Refer to the map of India on page 96 to identify areas with high malaria risk.

Common symptoms of malaria:

- At first, the child may have a fever every day, and then a fever may occur every 2 or 3 days. This pattern of fever may vary, so anyone with unexplained fevers should be tested for malaria.
- Chills
- Runny nose, cough, and other signs of respiratory infection
- Diarrhea/dysentery
- Burning urination and/or lower abdominal pain
- Skin rash/infections
- Painful swelling of joints
- Swollen lymph nodes
- Seizures and periods of unconsciousness may indicate malaria of the brain (cerebral malaria).
- Chronic malaria can cause anaemia.
- Children with HIV/AIDS can get sick faster if they are infected with malaria.

In very young children:

- Anaemia and paleness can begin within a day or two of being bitten by an infected mosquito.
- The palms of the child's hands may be a blue-gray color.
- Breathing may be fast and deep.

Three stages of malaria attack:

1. A person with malaria will have chills for up to an hour, and sometimes a headache too.

2. Chills are followed by high fever (40°C or more), lasting up to a day. The child may also be weak, flushed, and delirious.

3. Fever is followed by sweating and reduced fever. They may feel weak afterwards, but much better than during the first two stages.

Stages of malaria:

Chills

Fever

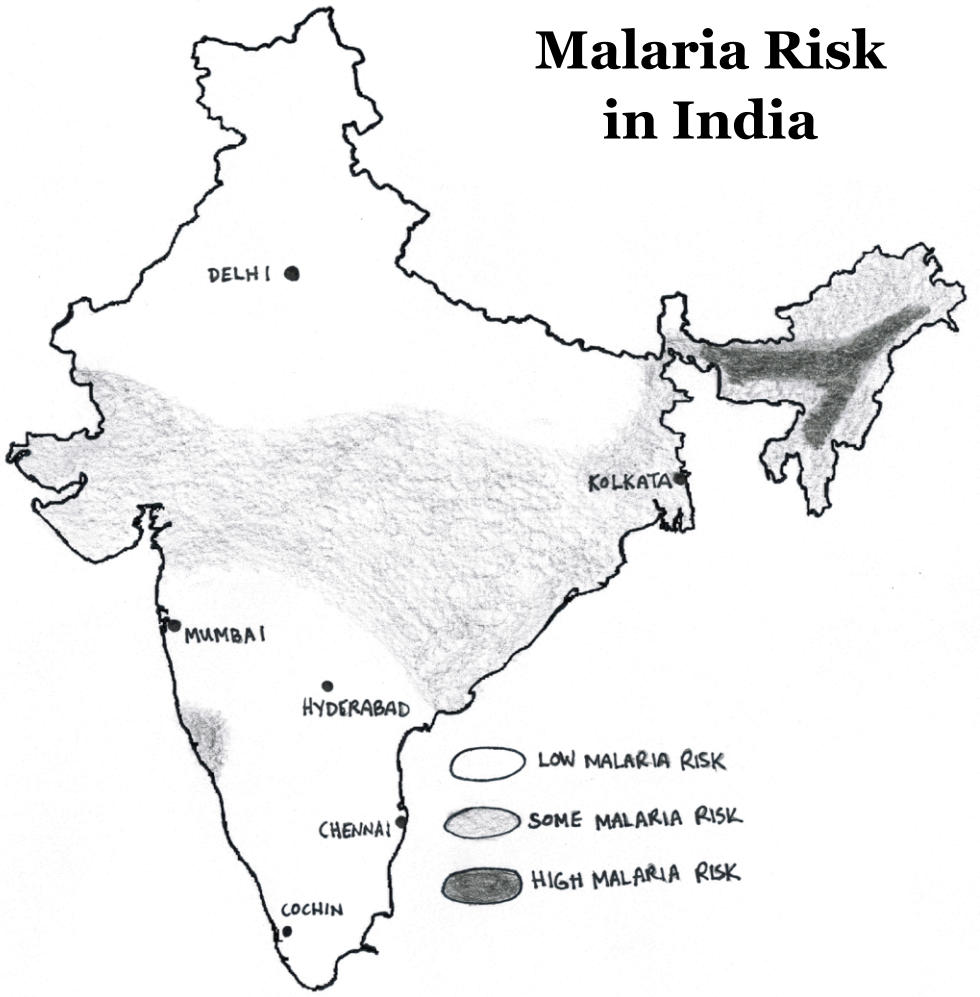
Sweating

Treatment:

- Go to the nearest health center and get the child tested for malaria if you suspect he has it, or has repeated fevers, especially if he has been bitten by a mosquito recently.It is important to get all suspected cases of malaria tested immediately because some forms of malaria (*P. falciparum*) are more dangerous than others and can be fatal within a few hours of the first symptoms.
- Give the child malaria medicine ("*antimalarials*") according to doctor recommendations (Chloroquine or Artemisinin Combination Therapy - ACT).
- If the child has a fever again after feeling better for a few days, you may need another type of medicine.

Prevention:

- Remove ANY standing water where mosquitoes will breed and hatch. Mosquitoes can breed in *very* small puddles of water, including the tops of bamboo poles, empty cans, or discarded tires.
- Sleep under mosquito nets.
- Put screens or netting over windows and doors.
- If you suspect someone is sick, go for treatment as soon as possible so that mosquitoes don't spread the disease to others after biting the infected person.
- Wear long sleeves, long pants and socks in areas with mosquitoes.



Malaria at a glance…

- ✓ **Children with malaria can't give it to other children during normal activities.**
- ✓ **If a mosquito bites a child who has malaria, that mosquito can give malaria to other people.**
- ✓ **Children with malaria can eat and sleep next to others, provided mosquitoes are not present.**
- ✓ **There is medicine to prevent and cure malaria.**

Dengue Fever

Dengue fever can be quite similar to malaria. Like malaria, it is also spread by mosquitoes, but it is a virus, not a parasite. It often occurs in *epidemics* (many people get it at the same time), usually during the hot, rainy season. A person can get dengue more than once, and the **relapse** is often worse than the first infection.

Relapse: when a disease comes back, even though it seems to have been cured already.

Common symptoms of dengue fever:

- Sudden high fever and chills (shivering) lasting 2-7 days.
- Painful body aches
- Headache, with pain behind the eyes
- Sore throat
- The child feels very weak and ill and wants to stay in bed.
- After 3 or 4 days of sickness, the person feels better for up to 2 days.
- The symptoms return for 1 or 2 days, and a rash may appear on the hands and feet.
- The rash spreads to the arms, legs, and the rest of the body, but usually does not appear on the child's face.
- In some cases, dengue can cause **hemorrhagic fever**, which will produce small dark spots on the skin, and sometimes bleeding outside the body. This happens when blood leaks out of the blood vessels, a condition which is very dangerous.

Hemorrhagic Fever: a type of virus that damages the body's organs and blood vessels, causing bleeding inside and outside the body. These types of viruses can range from moderate to life-threatening, depending on the situation.

Treatment:

- There is no medicine to cure dengue, but it can be treated at home as it usually goes away by itself in a few days.
- Make sure the child gets plenty of rest, and drinks lots of liquids.

- For fever or pain, take acetaminophen (but **not** aspirin or ibuprofen).
- Seek medical help for dengue fever if the sick child experiences:
  - Bleeding into the skin (the appearance of small dark spots under the skin)
  - Severe abdominal pain
  - Persistent vomiting
  - Cold, clammy hands and feet
  - Lethargy (tiredness)
  - Blood in their vomit or stool
  - Altered mental state (acts differently or appears confused)
  - Convulsions

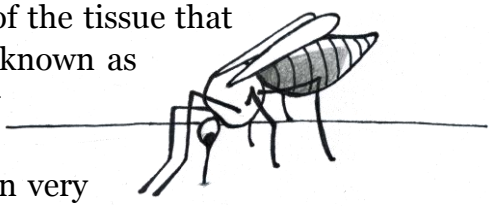
Prevention:

- Sleep under a mosquito net.
- Screen in windows and doors.
- Remove any standing water where mosquitoes will breed and hatch.

Dengue fever at a glance…

- ✓ **Dengue fever is not contagious: children with dengue fever can't give it to others.**
- ✓ **Children with dengue can eat and sleep next to others, provided mosquitoes are not present.**
- ✓ **Children with dengue can be treated in the home without medicine under normal conditions.**
- ✓ **Children who show signs of hemorrhagic fever need medical attention immediately.**

Japanese Encephalitis



Encephalitis is a disease that causes acute infection of the tissue that lines the brain. In India, the most common type is known as Japanese encephalitis, and is transmitted by mosquitoes. It is common in areas where rice paddies are irrigated. This disease can make a person very ill, and can sometimes cause permanent damage or death. Most people who are infected with Japanese encephalitis do not have severe symptoms, and become immune to it without even knowing they have been infected. Only a small number

of infected people develop dangerous symptoms. Young children are more commonly affected by Japanese encephalitis because they have not yet developed immunity.

Common symptoms of Japanese encephalitis:

- Fever
- Headache/Stiff neck
- Body Aches
- Vomiting
- Fatigue/Weakness
- Body may seem "floppy," like muscles are no longer strong enough to support body weight
- Spasms/jerking
- Paralysis
- Seizures

Treatment:

- Monitor and treat the fever (see page 46).
- Seek medical attention, especially if symptoms are worse than just fever and aches. There is no specific treatment for this disease, but doctors can help to manage the symptoms.
- A person with Japanese encephalitis should sleep under a mosquito net, because if an infected person is bitten by a mosquito, that mosquito can transmit the disease to others.
- Keep the child hydrated, and try to keep him as comfortable as possible.

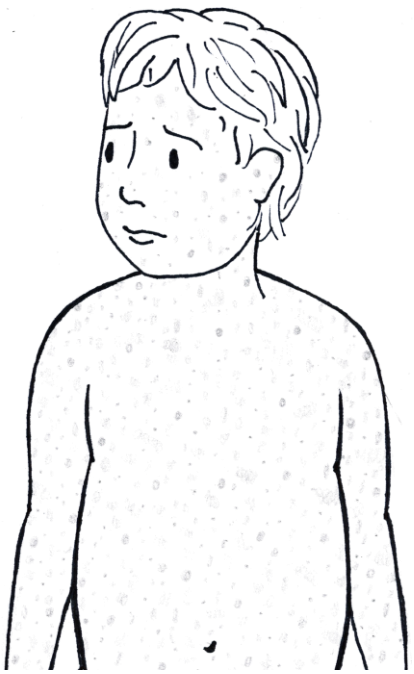
Prevention:

- Sleep under a mosquito net.
- Place screens and netting in windows and doors.
- Remove any standing water where mosquitoes will breed and hatch.

Japanese encephalitis at a glance…

- ✓ **Children with Japanese encephalitis cannot directly infect others. They can eat and sleep near others, provided mosquitoes are not present.**
- ✓ **Children with mild symptoms can be treated in the home. More severe symptoms require immediate medical attention.**
- ✓ **There is a vaccine for Japanese encephalitis, but many people develop their own immunity after being mildly infected.**

Measles



Measles is one of the leading causes of death among young children, even though there is a vaccination that can protect children from getting the disease. This severe viral infection is especially dangerous in children who are malnourished or those suffering from tuberculosis (see page 108).

Common symptoms of measles:

- About a week after being exposed to measles, children may experience symptoms of a cold or flu including: fever, runny nose, red, tired eyes, and a cough.
- As the child gets sicker, his mouth may be sore and he may have diarrhea.
- After a few days, tiny white spots that look like grains of salt, appear inside his mouth.
- One or two days after that, a rash appears behind the ears and on the neck, and then spreads to the face, the body, then the arms and legs. The rash will last about five days.
- In cases of very severe measles there may be scattered black spots caused by bleeding into the skin. If this happens, **get medical help immediately.**

Treatment:

- The child should stay in bed and rest as much as possible.
- Provide lots of liquids and nutritious food for him. If he is unable to swallow solid food, give him liquid foods like soup.
- Give acetaminophen or ibuprofen to relieve pain and fever.
- If the child has diarrhea, make sure you give him plenty of liquids and a rehydrating drink (see page 43).
- If possible, have a medical provider give vitamin A to prevent eye damage.
- If an earache develops have a medical provider give an antibiotic.
- If signs of pneumonia (page 53), meningitis (page 101), or severe pain in the ear or stomach develop, get medical help.

Prevention:

- **Get children vaccinated!** Measles vaccination (see page 6) is safe and cost-effective. Between 2000 and 2008, measles vaccination resulted in a 78% decrease in measles deaths!
- Keep children who have measles far away from all other children, especially those who are poorly nourished, or have tuberculosis or other serious diseases like HIV/AIDS. Measles can make them extremely sick.
- Children who have never had measles should not go near anyone who has measles.
- Maintain personal hygiene by washing your hands and your body frequently, especially after taking care of someone who has measles.
- If you have been around someone with measles, avoid public places like schools and stores for 10 days so you do not spread the germs to others.

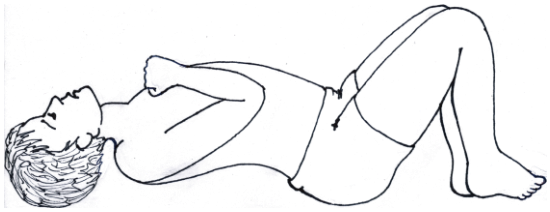
Measles at a glance…

- ✓ **Measles is very contagious: children with measles can give it to others.**
- ✓ **Children with measles should eat and sleep far away from healthy children.**
- ✓ **There is a vaccine for measles.**
- ✓ **Children with measles can be treated in the home under normal conditions, but it is important to monitor them very closely, and get help if you are unsure of what to do.**

Meningitis

Meningitis is a very serious infection of the tissue that protects the brain, and is most common in children. There are several different types of meningitis, and some are more serious than others. Meningitis can also be a complication of another illness, such as ear infection, pertussis, mumps, or measles. Children whose mothers have tuberculosis can sometimes get tubercular meningitis. The types of meningitis caused by bacteria or viruses are extremely contagious; seek medical care immediately and keep a sick child away from healthy children.

Common symptoms of meningitis:



- Fever and vomiting
- *Very bad* headache
- Stiff neck. The child appears listless, has no energy, and lies with his head and neck bent back.
- In babies less than one year old, the *fontanel* (also called the soft spot) will swell and bulge out.
- Rash
- In babies and younger children, meningitis may be difficult to recognize. The child may cry in a strange way, or become very sleepy.
- Sometimes there will be seizures (fits, convulsions) or strange movements.
- The child quickly gets worse and worse and only quiets down when he becomes unconscious or passes out.
- Tubercular meningitis develops slowly, over days or weeks. Other forms of meningitis can come on very quickly, in a matter of hours.

Treatment:

- Seek medical attention *immediately* if the child presents these key symptoms: fever, very bad headache, and a stiff neck. Meningitis can be fatal within hours so it is important to act fast if these symptoms appear.
- If the child has a high fever, cool him down with a cool compress on the way to the hospital.

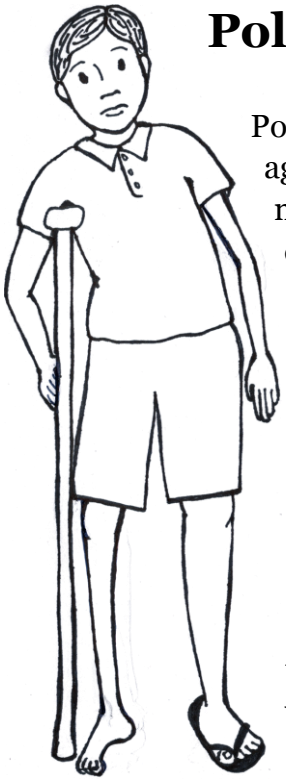
Prevention:

- There is a vaccine available for some types of meningitis. Talk to a doctor to find out if it might be right for the children in your home.
- Cover your cough, and wash your hands after coughing or sneezing.
- For prevention of tubercular meningitis, newborn babies of mothers with tuberculosis should be vaccinated with BCG at birth.

Meningitis at a glance...

✓ ***Immediate* medical attention is needed for a child with meningitis. Meningitis can be deadly in a matter of hours!**

✓ **Bacterial and viral meningitis are extremely contagious: children with meningitis should not eat or sleep near others.**



Polio (poliomyelitis)

Polio is a virus that most often affects children under two years of age. Polio spreads from person to person through infected fecal matter that gets into the water supply. Polio is also spread by droplets from the mouth and nose, just like the common cold or flu. It usually occurs in areas where there is poor sanitation and poor personal hygiene. Most people who get infected with the polio virus do not feel sick, but they can still spread it to others, even if they don't know that they have it. This is why it is very important to get vaccinated early.

Much of the world has successfully **<u>eliminated</u>** polio through vaccination programs, but there are still several countries where the disease causes sickness and disability. It is important to get every child vaccinated and work with local health workers to end the spread of this disease.

Eliminate: in medical language, a disease is eliminated if it is no longer occurring in a country or region. A disease is *eradicated* when it no longer occurs anywhere in the world. Smallpox has been eradicated.

Common symptoms of polio:

- Symptoms may appear 7-10 days after coming into contact with someone who has polio, but could be anywhere from 4 to 35 days after exposure.
- Similar to a cold or flu, there is often a fever, sore throat, and body aches.
- Nausea
- Vomiting
- Stomach pains
- Constipation
- Severe symptoms:
    - Stiffness in the back or in the legs
    - Muscle cramps or muscle twitching
    - Loss of reflexes
    - 5-10 days after first symptoms: paralysis of legs or arms, which eventually causes the limb to become thinner and weaker and sometimes malformed.

Treatment:

- Once the disease has begun, no medicine can cure the paralysis, though strength may slowly return in some cases.
- Ease the pain with acetaminophen or ibuprofen.
- Apply heat to muscles that are painful.
- Position the child so that he is lying as straight as possible.
- To reduce pain in the legs, put a cushion underneath the knees but keep them straight.

Prevention:

- **Vaccinate every child**!
- Wash your hands frequently, especially after using the bathroom and before eating or handling food.
- Avoid contact with people who have polio, or have been in contact with people who have polio.

Polio at a glance…

✓ **Polio is contagious: children with polio can spread it to others.**
✓ **Children with polio should wash their hands frequently, especially after coughing or sneezing or before eating or touching food.**
✓ **Children with polio must cough or sneeze into their arm, NOT their hand.**
✓ **There is a vaccine for polio.**

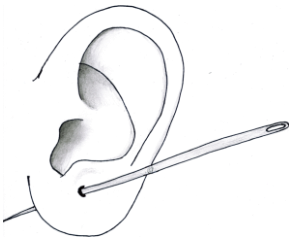
Tetanus

Tetanus is a bacterial infection that affects the body's muscles and **nerves**. These bacteria are found in the feces of animals, and sometimes humans, and often make their way into the soil. Usually, tetanus infects humans when the bacteria get into a dirty wound. Deep wounds, as well as those caused by animals, are at especially high risk of tetanus infection.

Nerves: the body's system for sending messages around the body, such as pain, or feelings of hot and cold.

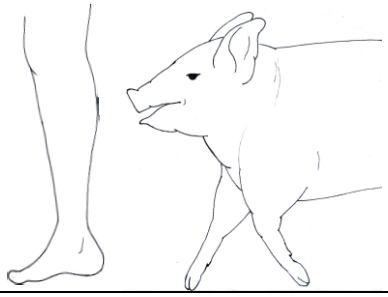
Wounds likely to cause tetanus

Holes and piercings made with dirty needles.



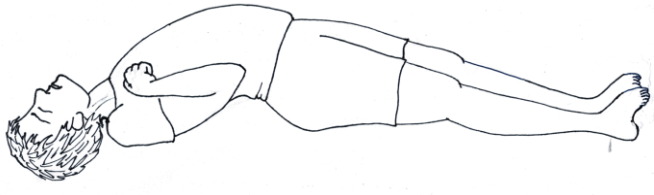
Wounds caused by thorns, splinters, nails or barbed wire.

Animal bites, especially from dogs, pigs, or other humans.

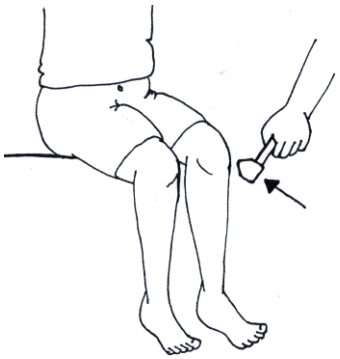


Common symptoms of tetanus:

- Usually an infected wound, but not always
- Discomfort or difficulty swallowing normally
- The jaw becomes very stiff (known as *lockjaw*), and the muscles of the neck and other parts of the body also become stiff.
- The child may have difficulty walking normally.
- Painful convulsions or spasms in the jaw and eventually the whole body. Moving or touching the person may trigger sudden spasms.



If you suspect a child has tetanus, test his knee reflexes:

Have the child sit so his leg hangs freely. Tap just below the knee cap with your knuckle or a small tool. 	If the leg jerks a little bit, that is a normal reaction (you could also compare with a healthy child to see the normal reaction). 	If the leg jumps a lot, the child may have tetanus. 

Treatment:

- Without treatment, tetanus is a fatal disease. **Take the child to the hospital right away!**
- If you cannot go to the hospital right away, examine the child's body gently for infected wounds. Often, you will see pus in the wound. Carefully wash the wound with soap and cool, clean water; remove all visible pus and dirt, then pour lots of hydrogen peroxide on the wound to disinfect it. Keep the child as still as possible, and avoid bright lights until you can go to the hospital.

Prevention:

- **Vaccination** is the best protection against tetanus. Both children and adults should be vaccinated according to the recommended schedule. Women should get vaccinated every time they are pregnant to prevent their newborns from getting tetanus.
- When a child injures himself (especially if the wound is very deep or dirty), clean and take care of it in the manner described in Chapter 7. If you do not feel comfortable handling it by yourself, take the child to a local clinic to have the wound taken care of.

Tetanus at a glance…

- ✓ **Tetanus is not contagious: children with tetanus can't give it to others.**
- ✓ **Children with tetanus can eat and sleep next to others.**
- ✓ **Medical attention is needed for a child with tetanus.**
- ✓ **There is a vaccine for tetanus.**

Rabies

Rabies is a contagious virus that is spread to people through animals. Infected dogs, cats, bats, and other animals can transmit rabies to a human by biting them. An animal that has rabies is called "*rabid*." In humans, **rabies is fatal** if the necessary treatment is not begun within *12-48 hours of exposure*. Urgency is critical in saving the person's life! The majority of rabies deaths each year occur in children, as they are more likely to interact with dogs that may have the disease, and may not tell an adult if they get bitten.

Common symptoms of rabies:

Shortly after exposure (less than 2 days), the child may exhibit:

- Itching, numbing, or tingling sensation around the bite
- Fever
- Headache

If a child has been bitten by a dog or other animal, and starts to show these symptoms, take her for treatment IMMEDIATELY! If you do not seek treatment right away, it might be too late to save the child's life.

Without treatment, these symptoms may appear in a couple of weeks:

- Anxiety, stress
- Convulsions, muscle spasms, or loss of muscle function
- Drooling
- Excitability, or combative (fighting) behavior
- Insomnia (unable to sleep)
- Hallucinations
- Difficulty swallowing, sometimes leading to *hydrophobia* (fear of water)
- Delirium

Once these symptoms have developed, the person is not likely to survive the rabies infection. This is why it is very important to be aware of any dog bites that occur, and take children to the hospital right away if they experience any of the initial symptoms of rabies infection.

Treatment:

If you suspect a child has been exposed to rabies, wash the wound thoroughly with soap and water, and apply an iodine solution if you have one. Be careful to protect yourself if you help her. Then, cover the wound to protect it and take her to the hospital **immediately**. Post-exposure treatment involves multiple injections over the course of several days.

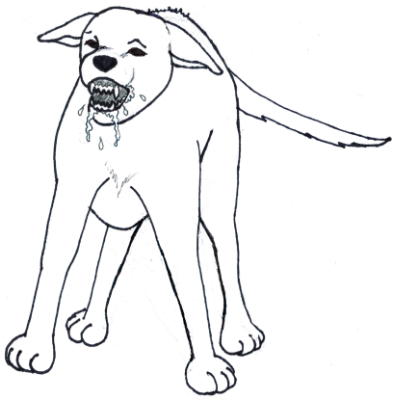
Prevention:

The surest way to prevent rabies is to *avoid dogs and other animals that might be carrying the disease*. There is a vaccine for rabies, but it does not protect a person completely. Even if you have been vaccinated for rabies, you still must go to the hospital immediately if you become exposed to the disease.

How to spot a rabid dog or other animal:

It isn't possible to tell for sure if an animal has rabies without examining its brain. Since this isn't usually possible, there are a few other things to look for:

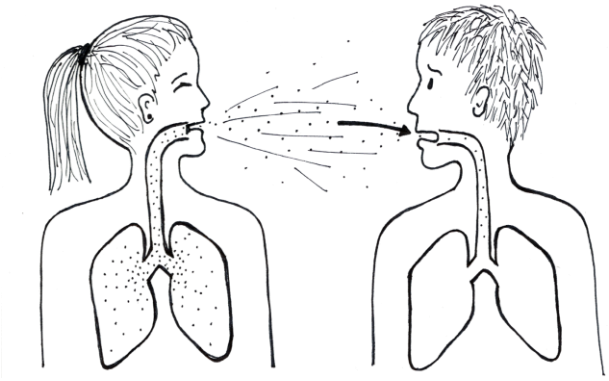
- Overly aggressive behavior (snapping, biting without reason)
- Excessive salivation (sometimes the mouth appears frothy or bubbly)
- Difficulty swallowing
- Out of the ordinary noises (barking, snarling, growling, whining)
- Paralysis or difficulty walking that seems to start in the hind limbs and progresses forward



Remember, the best way to avoid rabies is to stay away from street dogs and other wild animals!

Tuberculosis (TB)

Tuberculosis is a highly contagious chronic disease that most often affects the lungs. Tuberculosis more severely affects those who are weak, malnourished, or who live with someone who has TB. If you think you or someone around you has tuberculosis, go to a health center immediately and get tested.



Those who are HIV-positive are also at higher risk of getting TB. Because of this risk, all people with HIV should be tested for tuberculosis. Those with TB should also be tested for HIV. The sooner an infected person begins treatment, the better!

TB usually infects a person's lungs, but it can affect any part of the body. In young children it may also cause meningitis (See page 102 for symptoms of meningitis).

Tuberculosis is very contagious. TB spreads when someone with the disease coughs and another person breathes in the germs. Anyone living with someone who has TB is at great risk of catching the disease, especially young children.

Common symptoms of tuberculosis:

- A cough lasting longer than 3 weeks, which is often worse in the morning
- A fever in the evening and night sweats
- Pain in the chest or upper back and shoulder blades
- Weight loss and weakness
- In serious or advanced cases:
    - Coughing up small amounts of blood (though sometimes a lot of blood)
    - Pale, waxy skin.
    - In very serious cases, the person's voice becomes hoarse or rasping
- In young children: The cough may be delayed, or may not be as severe as in an adult with TB. Instead, look for:
    - Weight loss
    - Fever
    - Lightened skin color
    - Swelling in the lymph nodes in the neck, or in the belly

* *TB can be very hard to diagnose in children. Even if a test comes back negative, keep watching the child for symptoms.*

Treatment:

Treatment of tuberculosis takes at least six months, and is usually administered through "directly observed therapy," meaning that a health worker must watch the patient take his medicines every day. If the patient stops taking the drugs when he feels better, but before the treatment has been completed, the tuberculosis is likely to come back, and the disease will not respond to those drugs anymore. This is called *drug resistance*, and it is becoming a very big problem with tuberculosis. Treatment of drug-resistant TB takes two years or more of directly observed therapy, and still does not cure the disease sometimes. This is why it is important to follow treatment instructions exactly as given by a health professional.

Drug resistance: tuberculosis bacteria have become resistant to treatment in many cases, meaning that the normal medicines do not work. This happens if the disease that was contracted is resistant to medicines, if the correct medications weren't prescribed, if the medicine was not taken correctly, if all the medicine was not used, or if TB is contracted again. This dangerous type of tuberculosis is called Multi Drug-Resistant Tuberculosis, or MDR-TB.

- Go to a health center and get the prescribed medications for tuberculosis. **Give them exactly as directed and DO NOT stop giving the medicines even if the person feels better.** More than likely, a health worker will help to administer treatment for tuberculosis.
- A nutritious diet is extremely beneficial.
- Rest is very important.
- A child with severe tuberculosis of the backbone may also need surgery to prevent paralysis, but this condition is quite rare.
- Tuberculosis in any other part of the body is treated just like TB of the lungs, but the treatment may take longer. This includes TB in the glands of the neck, the abdomen, the skin and joints.

Prevention:

- Have the children vaccinated against TB with BCG vaccine, according to the recommended schedule.
- Children should eat plenty of nutritious food (see Chapter 3).
- If someone in the home has tuberculosis, have the whole home tested and treated as necessary.
- The person with TB should eat and sleep separately from everyone else, if possible in a different room, as long as they still have a cough.

- A person with active TB must cover his mouth with his arm when coughing and he should never spit on the floor, or even near others. Tuberculosis can be spread through the saliva and droplets expelled when you cough or spit.
- Those infected with TB should frequently wash their hands with soap and water, especially when they cough or sneeze in their hands and before they eat or prepare foods.
- Always be on the watch for signs of TB in all of the children. Weigh each child once a month so you can monitor the household for signs of TB. In family members and others who live close together, the onset of TB is very slow and quiet. If anyone in the home shows signs of TB, have tests done on all the children and begin treatment at once.

Tuberculosis at a glance…

- ✓ **TB is contagious: infected children can spread it to others.**
- ✓ **Children with TB should cover their mouths with their arm when they cough or sneeze, NOT their hands.**
- ✓ **Children with TB should wash their hands frequently, especially after they cough or sneeze, and before they eat or touch food.**
- ✓ **Children with TB should sleep and eat in a separate room.**
- ✓ **There is a vaccine for TB.**

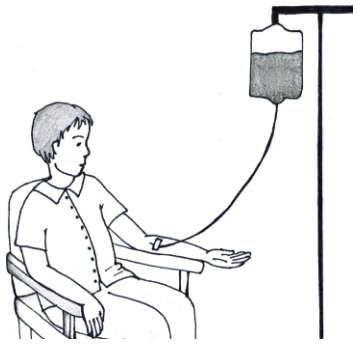
HIV/AIDS

HIV stands for *Human Immunodeficiency Virus*. HIV makes people very sick by reducing the body's ability to fight off attacks on the immune system from other diseases. A person with HIV gets sick much easier than others do — from illnesses such as the common cold, diarrhea, pneumonia, tuberculosis, and certain types of cancer because their immune system isn't able to protect itself as well as a healthy person's.

AIDS stands for *Acquired Immune Deficiency Syndrome*. AIDS itself is not a disease; it is a condition that occurs in the most advanced stages of HIV. AIDS occurs when the body is so weakened by HIV infection that the immune system can no longer fight off diseases. The signs of AIDS are different in different people. Often they are the typical signs of other common illnesses, but are more severe and last longer. Children often progress to AIDS faster than adults do, and are more vulnerable to deadly diseases.

HIV spreads when an infected person's body fluid (blood, breast milk, semen, vaginal fluid) successfully enters the bloodstream of someone who is HIV-negative.

HIV is spread through:

Unprotected sex between someone who has HIV/AIDS and someone who does not. 	**Sharing a used needle or syringe** after someone with HIV/AIDS used it. 
From a mother to a child during pregnancy, birth or during breastfeeding. 	**A blood transfusion,** if the blood has not been tested to confirm it does not contain the HIV virus. 

HIV CANNOT be spread through everyday contact like hugging, kissing, shaking hands, or living, playing, sleeping, and eating together. Also, HIV/AIDS cannot be spread by food, water, insects, or toilet seats.

Warning: Someone who looks and feels completely healthy can be HIV-positive, and can transmit the virus to others. A person with HIV may not experience signs of illness for years. He may not even know he has the disease so he is able to spread it to others if he engages in unsafe activities. The only way to know for sure whether or not a person has HIV is to get tested at a health center.

Common symptoms of HIV/AIDS:

- Gradual weight loss
- Chronic diarrhea lasting longer than a month
- A fever lasting longer than a month, sometimes with chills or sweats
- A bad cough that persists for more than a month
- Thrush (see page 26)
- Swollen lymph nodes (see page 121)
- Rashes or dark patches on the skin
- Warts or sores that do not go away, especially around the genital area and buttocks
- Weakness, fatigue, and feeling tired all the time

Treatment:

- There is no cure for HIV or AIDS. But it can be treated and managed by taking medicines known as "*antiretrovirals*." These medicines are taken in combination with each other and are called Antiretroviral Therapy or ART. They can significantly extend the life of a person with HIV/AIDS.
- Make sure a child with HIV/AIDS always gets plenty of rest and plenty of nutritious food. This helps her immune system to stay strong.
- A child with HIV/AIDS should avoid people who are sick with a contagious illness, and even those who have been exposed to people who are sick with a contagious illness.

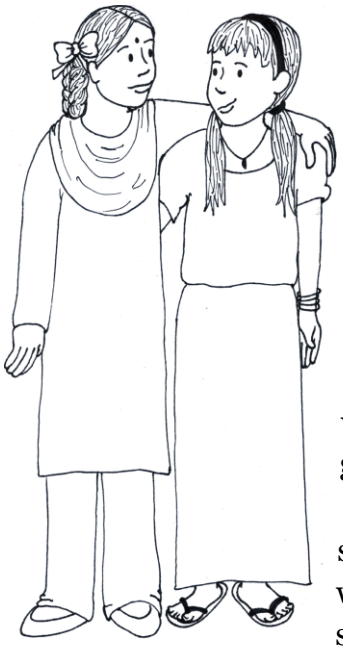
Prevention:

- **GET TESTED** so you know your HIV status. Many cases of HIV are spread because a person does not know he is infected, and unknowingly infects others.
- Always practice safe sex and provide adolescents with resources to learn about safe sex. Using condoms greatly reduces the risk of getting or giving HIV through sexual transmission.
- Always treat sexually transmitted infections early.
- Never share needles with anyone, or get an injection of any kind unless you are absolutely sure the instruments have been sterilized first with bleach or by boiling for at least **20 minutes**. Health workers should **NEVER** re-use needles or syringes; when visiting a health clinic, always ask the clinic worker if the needle is new or has been cleaned properly.
- Make sure equipment for ear/nose piercing or acupuncture is sterilized with bleach or by boiling them for **20 minutes**.

- Do not accept a blood transfusion that has not been tested first. Avoid transfusions unless they are absolutely necessary to prevent death. **Anaemia is *not* a good reason for a blood transfusion.**
- Do not share razor blades for any reason.
- HIV-positive women who are pregnant or breastfeeding should take antiretroviral medicine to prevent spreading the disease to their unborn child.
- Wear protective gloves on your hands if you touch someone else's blood, wound, bloody diarrhea, bloody vomit, and other body fluids.

Caring for someone with HIV/AIDS:

People living with HIV/AIDS deserve to be treated like anyone else: with loving care and respect.



People living with HIV or AIDS need comfort, kindness, and emotional support. They may also need help getting enough to eat, or taking their medicines.

If the person has a fever, diarrhea, or pain, she may need extra help staying clean. This can usually be done without risk. To prevent spreading the virus when taking care of someone with HIV/AIDS, remember:

- Blood, open wounds, bloody diarrhea, and bloody vomit can all spread the virus. Always wear protective gloves on your hands. Wash your hands often.
- Soiled or bloody clothing, bedding, and towels should be handled with care. Wash them in hot soapy water that has chlorine bleach in it. Keep these items separate from other household laundry to be extra safe.

HIV/AIDS at a glance…

- ✓ **Children with HIV/AIDS can sleep and eat with others.**
- ✓ **Children with HIV/AIDS can do normal activities like play outside and go to school.**
- ✓ **HIV/AIDS can be spread to others ONLY if they come into contact with contaminated body fluids.**
- ✓ **There are medicines that help HIV patients to stay healthy.**

Notes

Notes

7. EMERGENCY FIRST AID

First aid is the practice of providing medical attention to a person to stabilize an injury until further medical care can be administered from a doctor or other medical professional. In some cases, no additional help will be necessary. Other times, an injured person must be taken to the hospital, or may need assistance that you are not trained to give. If you feel overwhelmed, or feel that you cannot provide the care that is required, *do not wait – call for help!* Sometimes, getting to help just a few minutes sooner can save a life. In every emergency situation, it is very important to act quickly, remain calm, and use your common sense!

Remember to protect yourself in an emergency!

★ ***Always wash your hands with soap and water before and after helping an injured or sick person*** ★

Cleanliness is very important in preventing infection and helping wounds to heal.

When a child is injured, it is very important to be calm and to provide help. But you also must protect yourself from germs and infections, including HIV/AIDS and other blood-borne diseases. *You must keep yourself healthy in order to help the children stay healthy!*

- Avoid touching objects that have blood on them. Be careful not to pierce yourself with needles or any other sharp object while you are trying to help an injured person. Cover any cuts on your own skin with a clean, dry bandage to protect both yourself and the other person.

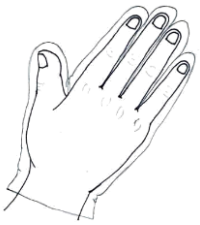
- Be especially careful if you find yourself in a situation where you are helping many people after a big accident, a fight, or a natural disaster.

- If you do get blood or another bodily fluid on your skin, wash the area with soap and clean water as quickly as possible (and remember to wash your hands too). If you get blood or another fluid in your eyes, rinse them carefully with lots of clean, cool water.

Wound Care

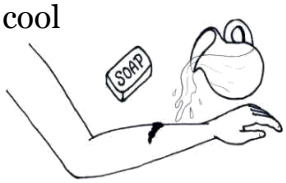
To treat a *wound*, you will usually follow a few basic steps: (1) **Clean** the wound, (2) **Protect** it from contamination, and (3) **Cover** the wound to keep it from becoming contaminated or reopened.

⇨ Small Wounds, Cuts, and Scrapes

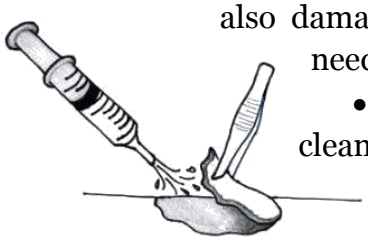


To treat a small wound:

- **Always** wash your hands first with soap and water.
- If the wound is still bleeding, always wear gloves.
- First, wash the skin around the wound with soap and cool water that has already been boiled or filtered.



- Then, wash the wound itself with clean, cool water. If you can see dirt in the wound, gently add soap while you rinse the wound. Soap helps to clean the injury, but it can also damage the broken skin, so be extra cautious if you need to use soap. Always rinse away all soap.



- It is important to clean out all the dirt. Gently clean underneath any loose flaps of skin. You can use **clean** tweezers (sometimes called *forceps*), or clean gauze to remove bits of dirt, but always make sure these items are sterile. Remember: *sterile* is cleaner than clean!

Any speck of dirt left in a wound can lead to an infection!

- If possible, squirt the whole area with clean, cool water, then dry it carefully.
- Apply a thin layer of an antibiotic ointment such as *Neosporin* to the clean wound. You should always have *Neosporin* or a similar cream in your first aid kit. Cover the wound with a bandage or sterile gauze pad. Be careful to only touch the edges of a bandage or gauze pad (*do not* touch the part that goes on the wound itself). Change the gauze or bandage each day and look out for signs of infection (see page 120).
- If a child has a wounded foot, make sure it is cleaned regularly and advise him to try not to walk barefoot until it is healed. Wounds on the feet can get infected very easily!
- If the wound is very dirty, or is a puncture wound (something pierced through the skin), check the child's records for his most recent tetanus vaccination. If he is not up to date, take him for a tetanus vaccination. *If you do not have medical records for the children, start keeping them right away!*

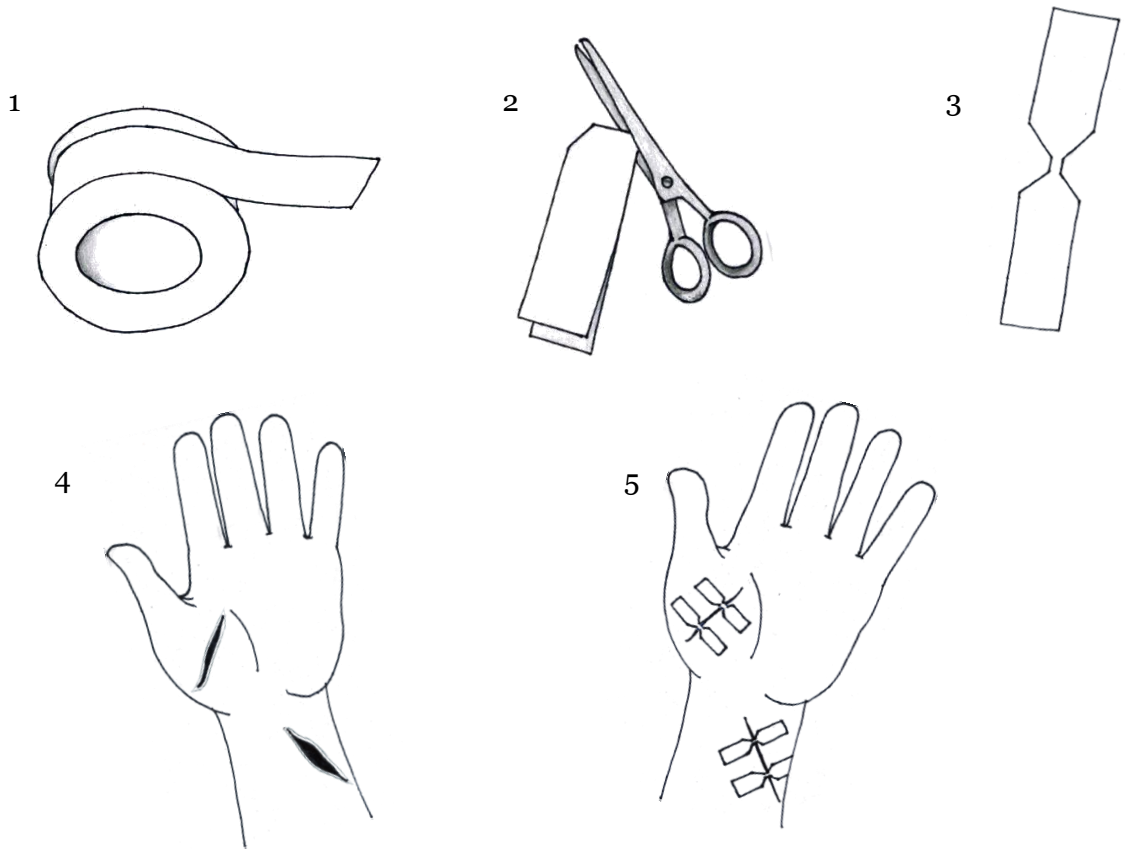
⇨ Large Wounds

A larger injury will heal faster, and with less scarring, if you bring the edges together neatly so the cut stays closed. This will also help to keep out dirt and other germs that can cause infection. For very deep cuts and large wounds, it is best to have a trained health professional perform first aid. But this is not always possible. If you must help a child with a large wound by yourself, follow these guidelines, and have a doctor or nurse look at the injury as soon as it is possible.

Before bringing the skin together, wash the area thoroughly with clean, cool water (and soap, if the wound is dirty). Be absolutely sure that **no dirt or soap** is left hidden inside the wound, because this can be dangerous.

Closing a large cut with a butterfly bandage

If you do not have "butterfly bandages" in your first aid kit, cut small strips of sterile tape to fit the size of the wound, and shape them into "butterflies" (shown in Panel 2 of the illustration below).



⇨ Bandages

Bandages help to keep wounds clean and protected. So of course a bandage itself needs to be very clean. If you are using a piece of cloth as a bandage (instead of a pre-packaged bandage), make sure it is washed and dried well in an area that is free of dust and dirt.

Before applying any bandage, the wound must be clean. If possible, cover the wound with a sterile gauze pad underneath the bandage. These pads are provided in many first aid kits, or they can be purchased at pharmacies. Remember to only touch a bandage or gauze around its edges. *Do not* touch the part that will be in contact with broken skin, because there may be contaminants on your fingers.

If a bandage gets dirty or wet, remove the bandage, clean the wound thoroughly, and apply a new bandage that is clean and dry. Even if the bandage does not seem too dirty, clean the wound and **apply a new bandage (or piece of gauze) every day**.

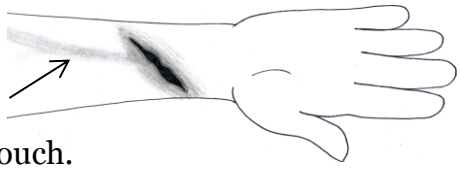
No bandage at all is safer than one that is wet and dirty!

Identifying and Treating an Infected Wound

A wound might be infected if you notice the following:

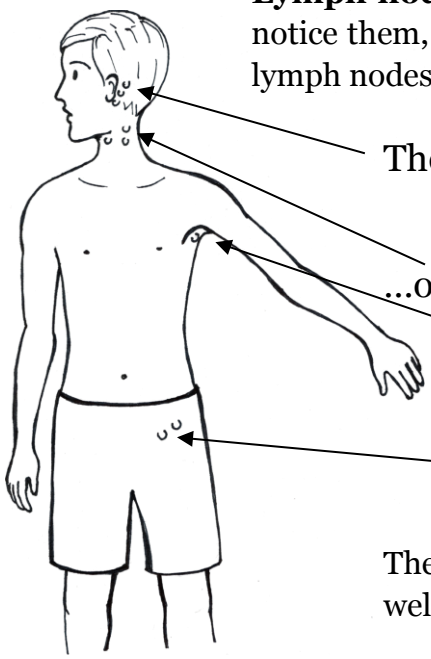
- The area becomes swollen, hot, red, or more painful.
- Pus.
- A bad odor (smell).

The infection might be spreading if:



- The child has a fever**.**
- There is a red line from the wound toward the body**.**
- Lymph nodes become enlarged and sensitive to the touch.

More information about lymph nodes



Lymph nodes trap germs inside the body. Usually, you do not notice them, but when your body is fighting an infection, certain lymph nodes may become swollen and slightly painful.

There are lymph nodes behind your ears…

…on your neck below your jaw bone…

…in your armpit…

…and in the groin area.

There are lymph nodes in other parts of the body as well; these are only some common areas of infection.

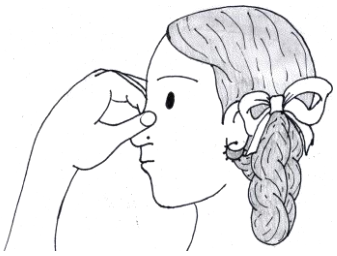
Treatment of infected wounds:

- Put a warm compress on the wound for about 20 minutes, several times a day. Or simply soak the infected part in a bucket of clean, hot water if possible (not too hot!).
- Keep the infected part at rest and **elevated** as much as possible.

Elevation: In medical care, to "elevate" a body part means to hold it higher than the level of the heart. This helps keep excess fluids from building up.

DANGER: If the wound begins to smell bad, if a brownish liquid starts to seep out, or if the skin around the wound turns black, or forms blisters or tiny air bubbles, this may be *gangrene*. Gangrene is a deadly infection if it is not treated right away. **Seek medical help immediately!**

Stopping a Nosebleed

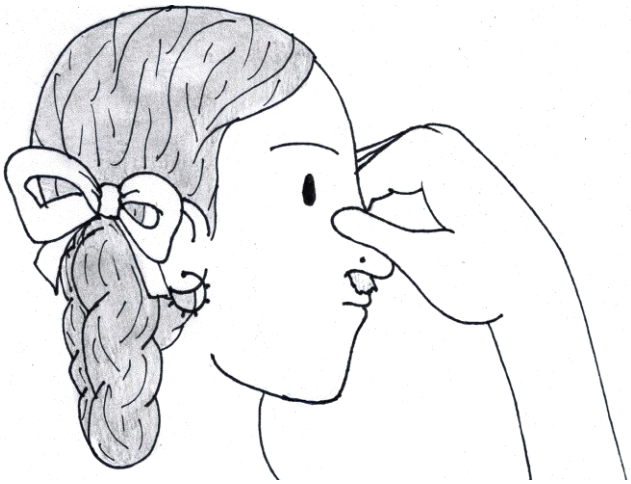


1. Have the child sit quietly and remain upright (do not lean back).

2. Have her blow her nose gently to expel the mucus (snot) and blood. Remember to take precautions for blood and body fluids.

3. Have the child pinch her nose firmly for about 10 minutes, or longer if the bleeding does not stop right away.

If this does not stop the nosebleed . . .



1. Pack the nostril that's bleeding with cotton, leaving part of it outside the nose. If possible, first apply some *Vaseline* (petroleum jelly) to the cotton.
2. Pinch the nose for another 10 minutes. Be careful **not** to tip the head back.
3. If possible, leave the cotton in place for a few hours after the bleeding has stopped, then remove it carefully.

Prevention:

If a child gets nosebleeds often, have her apply a small amount of *Vaseline* inside her nostrils each day. Eating oranges, limes, tomatoes, or other foods high in vitamin C may help to strengthen the blood vessels so that the nose bleeds less.

Controlling Very Heavy Bleeding

1. Elevate the injured part.

2. Press directly on the wound, even though it may cause the person pain. If you do not have access to a clean cloth or towel to use, wrap a piece of clothing around your hand and use that. In this situation, it is more important to prevent a *fatal* (deadly) loss of blood than to protect the wound from infection – but do protect yourself. **Press hard!** Keep pressing until you reach the hospital, or help arrives to take over the person's care. This may take time – *do not stop applying pressure*. Do not remove your hands to check the bleeding; removing pressure may cause the bleeding to start again. After 20 minutes, check to see if the wound is still bleeding.

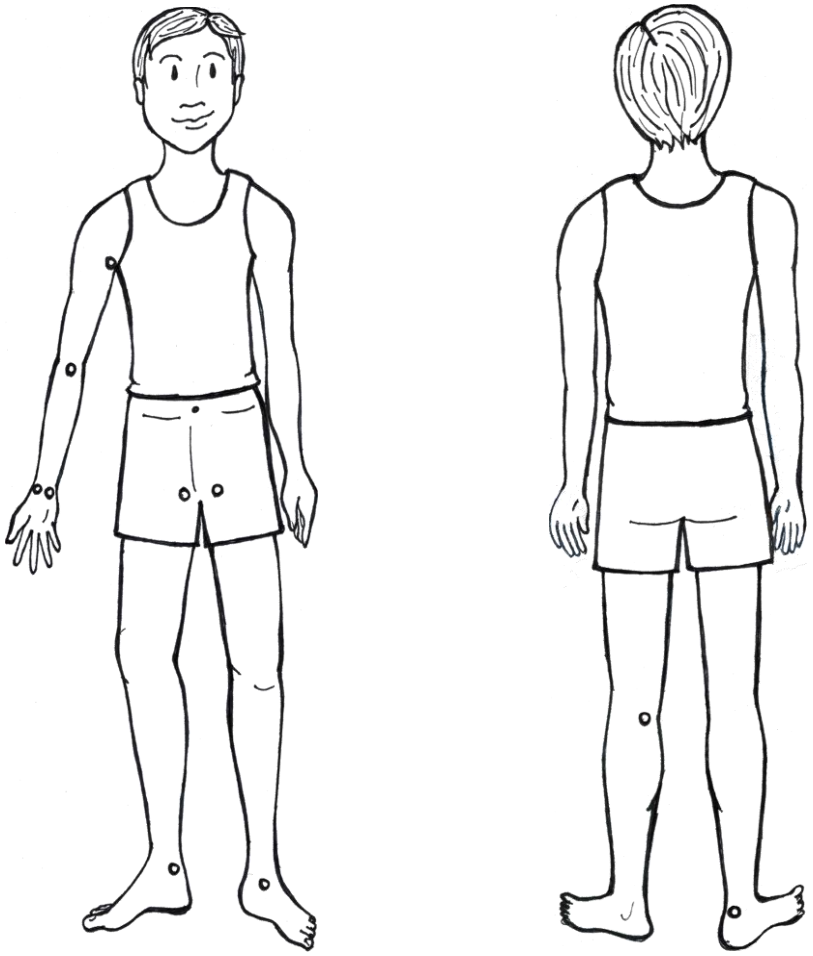
- This type of direct pressure will stop the bleeding of nearly all wounds—sometimes even after a part of the body has been cut off.

- Occasionally, direct pressure will not control the bleeding, especially if the wound is very large or an arm or leg has been severed.

If pressure does not seem to be working:

- Keep pressing on the wound anyway.
- Keep the injured body part as elevated as possible.
- If your arms get tired, you can keep pressure applied by tying a bandage or piece of cloth tightly around the wound.
- Try to squeeze at appropriate **pressure points** (see following page) to slow down the flow of blood from the *artery*. An artery is a blood vessel that carries blood from the heart to other parts of the body. Blood pumps through arteries with a lot of pressure, so when an artery is damaged, it causes a lot of bleeding. Make sure to keep pressing on the wound itself at the same time.

Pressure points are where, using your fingers, you can push the artery against a bone to inhibit or slow down the bleeding.



CAUTION:

- Take precautions to protect yourself from blood and bodily fluids.
- Never put dirt or anything else on a wound to stop bleeding. This can make the situation much worse.
- Do not tie anything around the person's arm or leg, unless it is to help apply direct pressure to the wound.
- When bleeding is severe, elevate the person's feet and lower his head to keep him from going into **shock**.

Shock: a life-threatening collapse of the body's blood-pumping system due to severe injury or blood loss. You can recognize it if a person is very pale, breathing rapidly, sweating, has a rapid, weak pulse, and is confused. If this happens, get to a hospital IMMEDIATELY!

Burns

Most burns can be prevented!

Prevention:

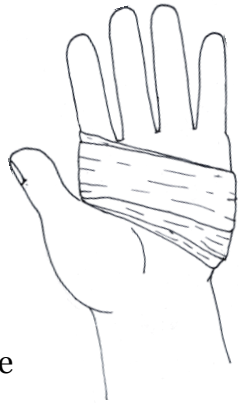
- Do not allow small children or babies near fires.
- Keep matches and lamps in a place where children cannot reach them.
- Keep the handles of pots and pans on the stove turned away from the edge so children cannot reach up and pull hot water or food down onto themselves or others.
- Always make sure outdoor fires are completely cold before leaving them unattended.

Treatment of minor burns (1st degree burns):

First degree burns are usually not serious, and do not form blisters, but they can still be very painful. When a child gets a minor burn, try to put the burned skin into some cold water **right away**! This will lessen the damage caused by the burn, and will help with pain.

Keep the burned area as clean as possible while it is healing, and give acetaminophen for pain if necessary.

Treatment of blistering burns (2nd degree):



- Do **not** break or pop blisters caused by burns.
- Do not apply ice to a burn with blisters.
- If the blisters do break, wash the area gently with soap and clean water as soon as possible.
- Heat a small amount of *Vaseline* until it boils. Once it has cooled, spread it on a sterile gauze pad from your first aid kit, and apply this gauze pad lightly (without putting pressure on the burned area).
- If you do not have any *Vaseline*, leave the burn uncovered, but it is important to keep it as clean as possible. **Never smear oil, ghee or butter on a burn, and protect it from dust and dirt as much as possible.**

If you notice any signs of infection (see page 120), apply warm salt-water compresses to the burn three times a day. To make a salt-water compress, add one teaspoon of salt to one liter of water, and prepare the compress as described on page 71. With great care, remove the dead flesh. You can also apply an antibiotic ointment such as *Neosporin*.

Severe Burns (3rd degree):

Third degree burns destroy the skin and expose raw flesh. This type of burn is always serious, and so are any burns that cover large areas of the body, no matter how deep. T**ake the child to the hospital straight away!**

For the trip to the hospital, wrap the burned part with a **clean** cloth or towel moistened with clean water. When the flesh is burned this badly, infection is a very serious concern. *Remember, your skin is your first line of defense against invading germs!*

If for some reason, it is not possible to get medical help, treat the burn as you would a 2nd degree burn. If you do not have any *Vaseline*, do not cover the burn tightly. Loosely cover the area with a piece of clean cloth to protect it from dust, dirt, and insects. Keep the cloth as clean as possible and change it if it becomes soiled with liquid or blood from the burn. **Never put grease or dirt on a burn!** If you have access to honey, applying some to the burned area can help to prevent and control infection and speed up the healing process. **Gently** wash off old honey and apply a new coat at least twice a day.

But remember, the best way to handle a severe burn is to go to a health center right away!

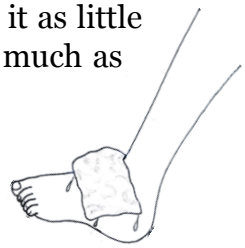
Strains and Sprains (Twisting or Tearing in a Joint)

Sometimes it is difficult to tell how badly a joint is injured without the help of an *X-ray* at the health clinic. If a child injures a joint and it is impossible to take him to see a health worker, you can follow these guidelines to help heal the joint. Serious joint injuries may take several weeks to heal, and broken bones take even longer. If you suspect a child has a broken bone, take him to a health care worker (see page 128). A broken bone may not heal properly without medical attention.

Treatment:

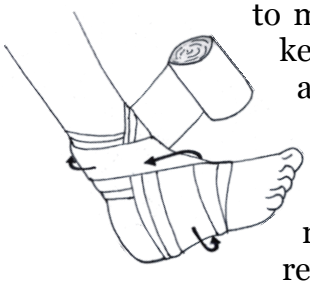
Treatment of strains and sprains often follows what is known as the "***RICE***" method:

Rest. It is extremely important to rest an injured joint, and to use it as little as possible. Use crutches to rest a sprained foot, ankle, or knee as much as possible.

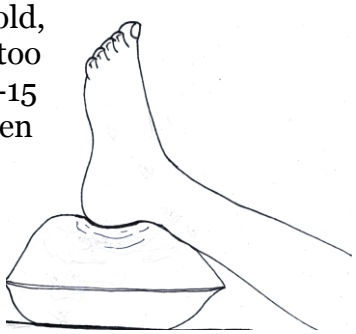


Ice. For the first few days, apply ice to the swollen joint for 20 minutes every hour or so. This will help reduce swelling and pain.

Compress. In this case, "*compress*" means to apply pressure to the joint to reduce swelling. Wrap the joint with an elastic bandage. This helps to minimize swelling, keeps the joint in the correct position, and keeps it from moving too much. Start toward the toes (or fingers) and wrap inward towards the body, as shown in the picture. If the child's fingers or toes become cold, blue, or tingly, the wrap is on too tightly. Remove the wrap for 10-15 minutes every few hours, and then rewrap.



Elevate. To relieve pain and swelling, keep the sprained part elevated.



Give the proper dosage of ibuprofen or acetaminophen for pain and to reduce inflammation and swelling.

After a few days (once swelling has stopped increasing), stop applying ice. Instead, soak the joint in hot water for 20 minutes a few times each day.

Seek medical assistance if:

- Pain and swelling have not started to go down after a few days.
- The joint seems loose, or floppy, or if the child has difficulty moving his fingers or toes. In this case, an operation may be necessary to repair the damage.

Broken Bones (Fractures)

Children are much more likely to break their bones than adults, because they do a lot more climbing, jumping, and playing in which **fractures** are possible.

Fracture: a broken or cracked bone

There are two main types of broken bones: *simple* and *compound*. In a simple fracture, the bone is cracked or broken, but does not pierce through the skin. In a compound fracture, the broken bone pierces through the skin (leaving no question that it is broken). Broken bones require medical attention to heal properly. Take the child to a health center immediately, even if you suspect a simple fracture.

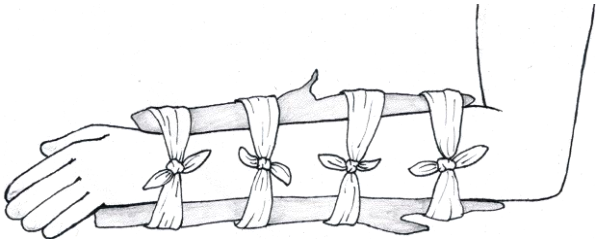
A bone might be broken if:

- The child hears or feels the bone break
- The affected area is painful to the touch in one spot
- There is swelling and bruising around the area
- The arm or leg appears to be in an abnormal position
- Moving the limb is painful, or the limb does not move properly.

Treatment of a broken bone:

Depending on the severity and location of the fracture, treatment may differ a little bit. Try not to move the child until you have assessed the situation.

If the skin is not broken, apply a **splint**, and take the child to the hospital. Wrap the splint in cotton or an article of clothing for padding, and tie it firmly in place. If the child complains of numbness, in the area, loosen the splint.



Splint: anything used to keep a broken bone from moving. You can make a splint out of a stick or other stiff material.

If the broken bone has pierced the skin, do not move the child unless his

safety is immediately threatened. DO NOT touch the wounded area. Control bleeding by applying pressure to the appropriate pressure point (see page 124). DO NOT straighten or move the broken limb. Carefully fasten a sterile gauze pad over the wound. Apply a splint to prevent more damage. If a medical professional can come to you, that is best. If that is not possible, carefully apply a splint and take the child to the hospital immediately.

Heat Stroke

Heat stroke is different from heat exhaustion (see page 44). Heat stroke is much more rare, but is very dangerous. It is most likely to occur in elderly people, obese people, and alcoholics during times of very hot weather.

Common symptoms of heat stroke:

- Skin turns red, and is very hot to the touch.
- No sweating (skin is completely dry). Not even the armpits will be sweaty.
- Very high fever (41°C and higher)
- Rapid heartbeat
- Losing consciousness

Treatment of heat stroke:

- **Try to lower the child's body temperature immediately**!
- Take the child to a shady area.
- Fan the child, and soak her with cold water until the fever goes down
- Seek medical help.

Concussion

A *concussion* occurs if a child hits her head hard enough to injure the brain. Depending on how hard the child's head is hit, a concussion can be quite serious and may require urgent medical attention. Concussions can cause both long-term and short-term damage.

Symptoms of a concussion:

- Loss of consciousness after hitting head
- Headache
- Confusion
- Nausea and vomiting
- Blurred vision
- Memory loss (for example, the child can't remember the injury happening)
- Asking the same questions over and over again
- Hearing ringing sounds
- Slurred speech
- Getting tired easily
- Crankiness
- Change in eating and sleeping patterns
- Loss of balance or trouble walking

Treatment:

- Get plenty of rest. Resting is how the brain heals itself. Minimize activities requiring concentration and mental exertion such as school work and watching TV.
- When a child has a head injury, an adult should stay with her for at least the first 12-24 hours. She can go to sleep, but the adult should wake her every 2 hours or so, ask a simple question (such as "What is your name?" or "What day of the week is it?"), looking for a change in the way the child feels, behaves, or looks.

- Use acetaminophen (*Tylenol*) **not** aspirin or ibuprofen for headaches.
- Clean any head wound thoroughly and bandage it properly (see page 108 for wound care).
- Continue to check the child often to make sure she can speak, walk, and move.
- Healing from a concussion takes time. The child should not participate in sports or heavy physical activity for several weeks.

Get medical help under these circumstances:

- If any symptom gets worse
- Nausea doesn't go away
- **Pupils are dilated** or are different sizes
- The child has trouble walking or speaking
- Fluid drainage from the ears or nose
- Seizures
- Weakness or numbness in the arms or leg

Pupil: the black part in the center of the eye. When it is dilated, it expands in size, and looks larger than normal.

Proper Transport of an Injured Person

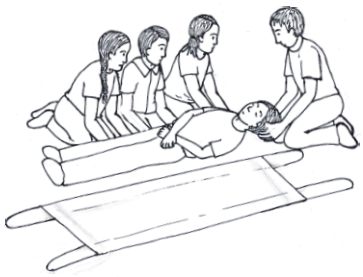
Don't move a severely injured person unless you absolutely have to! If you don't have proper medical training, moving a person can cause more damage than good, especially if the person has injured his back, neck, or head.

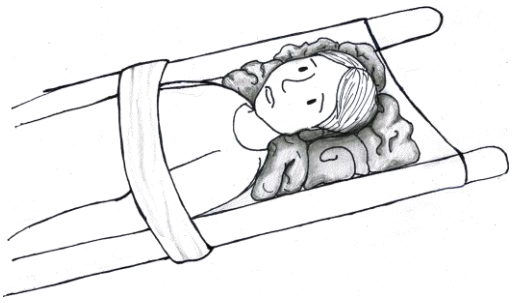
Move an injured person **IF AND ONLY IF**:

- It is *impossible* to have a doctor or nurse come to the injured person.
- The injured person is in danger if they remain where they are (in a busy street, for example).

How to move an injured person properly when there are no trained health workers to help:

- Find a stiff board or stretcher, and at least one other person to help. *Slowly and carefully* roll the person onto his side, without twisting his neck, back, or hips AT ALL. **The body should remain perfectly straight while being rolled**. This may take two or three people to ensure that the person is rolled to the side in one smooth movement. While the injured person is rolled to the side, carefully place the stretcher or board underneath him, and smoothly roll the person back onto the stretcher. This technique is called "*log-rolling*." It is extremely important that the person's body remain completely straight throughout this process. Moving an accident victim too quickly may paralyze him for the rest of his life.





- Try to stop any bleeding by applying pressure to the wound, as discussed on page 123.
- If the person's head and/or neck are injured, place tightly folded clothing or cloth on either side of the neck and head to prevent movement that may cause further damage. The danger is that the injured person's spinal cord may be pinched between the bones in the back. In this case, moving the person can cause permanent paralysis.
- Carefully take the person to the nearest medical facility. He should be jostled as little as possible. Moving someone with a neck or spinal injury slowly and carefully is more important than trying to quickly get them to a hospital. Don't transport them in an auto-rickshaw. They need to remain perfectly flat and immobilized.
- While transporting a person on a stretcher, try to keep the feet elevated.

Poisoning

As you surely already know, children like to put things in their mouths! Many children die each year from accidental poisoning, because they do not know the dangers of eating or drinking things that are toxic. Protect the children from swallowing dangerous substances by making sure to keep all poisons out of the children's reach. Never keep poisonous liquids (such as gasoline, or household cleaning solutions) in cold drink bottles, because the children might get confused and think it is okay to drink.

Some common poisons to be aware of:

- medicines (**ALL medicines are poisonous in the wrong dosage**)
- rat poison
- pesticides and insecticides
- bleach and household cleaners
- rubbing alcohol
- poisonous plants, berries, and mushrooms
- petrol, lighter fluid, kerosene
- lye
- spoiled food

Treatment:

If you suspect a child might be poisoned, **right away**:

- Call for help. Treatment is different for different poisons.
- In many cases, make her vomit if she is awake and able to. Put your finger in her throat or have her drink water with mild soap or salt in it (6 teaspoons salt to 1 cup water).

CAUTION: Do *not* try to make the child vomit if she is unconscious or if she has swallowed kerosene, petrol, acid, or anything that causes burns on contact, such as lye. If the child is awake and alert, have her drink a glass of clean water or milk every 15 minutes to *dilute* the poison (to dilute means to water down).

Cover the child if she is cold, but avoid too much heat.

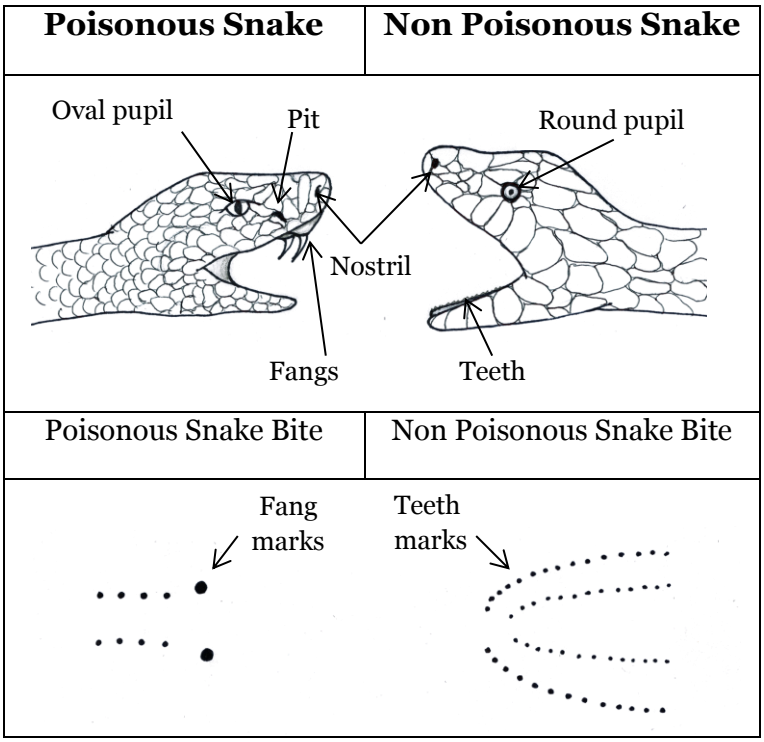
Snakebite

Throughout the world, there are many different home remedies for snake bites. While some of these can be helpful, most home remedies have *not* been proven to have a beneficial effect. Sometimes, a person's belief in the remedy's power can cause him to relax, which *does* help with snakebite. However, it is still best to use modern medical treatment for a bite from a poisonous snake.

It is very important to know the types of snakes in your area, including which snakes are poisonous and which are non-poisonous. In India, most poisonous snakes belong to three main groups:

1. *Sea snakes* – Unless you are swimming in the ocean, you probably don't need to worry about sea snakes.
2. *Vipers* – Vipers are found throughout India.
3. *Cobras, mambas, kraits, and tiger snakes* – These snakes are also found throughout India.

If you did not see the snake itself, and are unsure of whether a bite has come from a poisonous snake or a non-poisonous snake, look at the bite marks on the person's skin. They are different for poisonous snakes and non-poisonous snakes.



Note: If possible, *do not* kill a non-poisonous snake. They are harmless, and often help you by killing insects, mice, or other pests (they even kill poisonous snakes sometimes!)

You should have anti-venom (also called serum) on hand for the snakes in your area. Know how to use them, and always make sure you have enough on hand. **Do not wait until someone gets bitten, because it will be too late!** Children are in more danger from snakebite because their bodies are smaller.

When a person has venom injection from a poisonous snake (called *envenomation*), they may have some of these symptoms, depending on how much venom the snake injected:

- Severe pain in the area that was bitten
- Swelling
- Change in skin color around the bite
- Numbness or tingling
- Headache
- Blurred vision with droopy eyelids
- Slurred speech or difficulty swallowing
- Bleeding
- Nausea, vomiting, diarrhea
- Very bad muscle pains or spasms
- Shock
- Paralysis

In the event of a bite from a poisonous snake:

1. **IMMEDIATELY prepare the person for safe transport to the hospital!** Follow these guidelines for moving and transporting a child who has been bitten.
2. Stay calm, and tell the child to stay calm. Fear and anxiety can make the situation worse. **Move the bitten body part as little as possible**. The more the arm or leg moves, the faster the poison will spread into the body.
3. Remove any jewelry, such as rings or bangles, because the bitten area may become very swollen.
4. Wrap the bitten body part tightly with an elastic bandage or clean piece of cloth (but not too tight – you should still be able to feel a pulse in the wrist or on the top of the foot). Wrap the bandage all the way up the arm or leg, making sure you can feel a pulse. Again, move the bitten body part as little as possible.
5. Put a splint on the limb to keep it from moving.
6. Unless a doctor or health worker is already on the way, carry the child to where he can get medical attention. If possible, note the kind of snake that bit the child because different snakes require different anti-venoms. Leave the bandage on until the anti-venom injection is prepared. It is also important to take precautions for an allergic reaction (see page 60). If you cannot keep anti-venom in your hostel, then learn now where the nearest anti-venom is available so that you don't waste time taking the victim from one place to another.

DO NOT:

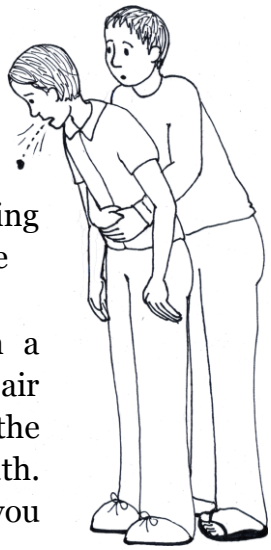
- Try to suck the venom out of the bite
- Put ice on the bite
- Cut the skin around the bite
- Tie anything tightly around the limb. This can cause more damage.

Tips for avoiding snakebite:

- Know your snakes!
- Wear long pants with proper boots or shoes, especially at night.
- Have a torch available for the children to use for walking to the latrine at night.
- Repair damage to doors, walls, and floors where snakes can enter the home.
- Check shoes and pockets.
- Do not handle snakes.
- Whenever possible, avoid sleeping on the ground, especially outside.
- Be very careful during flooding or after heavy rains.

Choking

If a person appears to have something stuck in his throat, but he is able to cough or talk, *let him cough*. This will help dislodge the item that is stuck. If a person is unable to cough or talk, and cannot breathe, he is *choking*. A choking person will usually grab at his neck and throat to indicate that he is choking and unable to breathe.



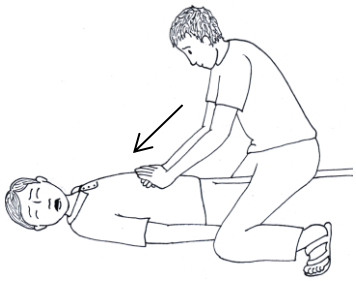
If the person cannot breathe, **you must act fast**:

International sign for choking

- Stand behind the person and place your arms around his waist.
- Place your closed fist (thumb pointing toward him) against his stomach, above the bellybutton and below the ribs.
- Press upward into his stomach with a strong, sudden movement. This forces air out of his lungs and should force the obstruction out through his mouth. Repeat this motion several times if you need to.

If the person is bigger and heavier than you, or has already lost consciousness:

- The person must be on his back.
- Tilt his head to the side, so the piece of food that is stuck cannot fall back into his throat.
- Straddle the person, with the *heel* (closest to wrist) of your hand on his stomach between his ribs and bellybutton.
- Push upward toward his chest to force the air from his lungs. Repeat this motion several times if you need to.



If a baby gets something stuck in her throat and is unable to cry or cough, call for help and **act fast**:

- If you can see the object that is stuck, use your finger to remove it. If you cannot see the stuck item, do *not* put your fingers in the baby's mouth.

- Lay the baby face down on your forearm, supporting her head in your palm, and make sure her head is lower than her chest. Be careful NOT to cover the baby's mouth, or turn the baby's head to the side.
- Use the heel of your hand to give up to five back slaps between the baby's shoulder blades
- If the item that is stuck does not pop out, support the baby's head and turn her face up (making sure to keep her head lower than the rest of her body). Using two or three fingers, give five chest thrusts just below the baby's breastbone.
- Alternate back slaps and chest thrusts until the item comes out, or the baby loses consciousness (faints).
- If the baby faints, do not do any more back slaps or chest thrusts. Start performing CPR *only if* you have been trained. **Seek medical help immediately**.

Drowning

Always take safety precautions near bodies of water, including ponds, water tanks, rivers and anywhere water accumulates. *A child can drown in just a few inches of water!* Keep a close eye on children playing in or near the water, especially if they have not learned how to swim.

Signs of drowning:

These signs are known as the *Instinctive Drowning Response*. A drowning person is not in control of his movements. All of these signs of drowning happen automatically.

- Children playing in the water make noise. If you notice that a child has stopped making noise, go investigate. A person who is drowning is *physically unable* to call for help or make any noises at all, so always pay attention to the sounds of children playing in the water. More specifically, listen for the absence of noise.
- A drowning person's mouth remains at water level, sinking below the water briefly, then reappearing. The child's mouth may remain open, and he may take a quick, shallow breath when his mouth floats above the water line.

- A drowning person cannot wave his arms. His arms will extend sideways from his body, trying to push the water down and stay afloat.
- The child's body will remain upright in the water.

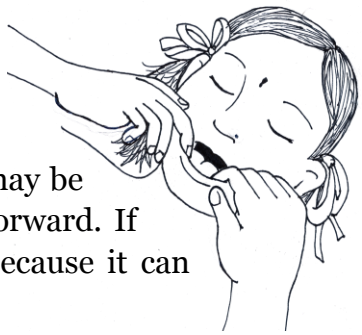
If you take children swimming, make sure they all have been taught how to swim, and use the *buddy system*. Assign each child a buddy; each pair of children will be responsible for one another. Tell the children to ALWAYS know where his or her buddy is, and to report to an adult immediately if they notice anyone having distress or trouble in the water.

If a Person is Not Breathing: Perform Mouth-To-Mouth

★ ***A person can die in less than four minutes if they cannot breathe.*** ★

If an accident occurs and a child stops breathing, it is extremely important to act quickly, or she may die. **Call for help to go to the hospital right away!**

IMMEDIATELY start mouth-to-mouth if a child is not breathing!



Step 1. With your finger, try to remove anything that may be stuck in the mouth or throat. Pull the child's tongue forward. If you can see mucus in her throat, try to clear it out, because it can obstruct breathing.

Step 2. Gently (but also quickly) lay the child on her back. Tilt her head back so her chin points upward. This prevents air from going into her stomach instead of her lungs. Pull her jaw down to open her mouth.

Step 3. Pinch the child's nose closed with one hand, open her mouth wide, and cover her mouth with yours.

Blow into her lungs and watch for her chest to rise. Let the air come back out, then blow another breath into her lungs. Repeat this every 5 seconds. For babies and small children, you can cover both the nose and mouth with your mouth and breathe **very gently** about once every 3 seconds.

Keep performing mouth-to-mouth breathing until help arrives, or the child is able to breathe on her own. Sometimes you must keep trying for an hour or more.

Note: Unless there are open sores or blood in the child's mouth, it is **not possible** for HIV to spread this way (see page 111 for more information about transmission of HIV). Some first aid kits also include a barrier that you can use between your mouth and the child's mouth, to prevent the spread of contagious germs. But usually, if a child is not breathing, it is more important to worry about that than about germs.

Appendicitis and Peritonitis

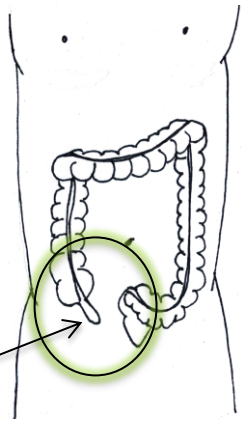
These are dangerous conditions that often require surgery. Seek medical help!

The *appendix* is a small organ that is attached to the large intestine (gut) on the lower right side of the abdomen (belly). If the appendix becomes infected, it is known as *appendicitis*. Appendicitis usually requires an operation.

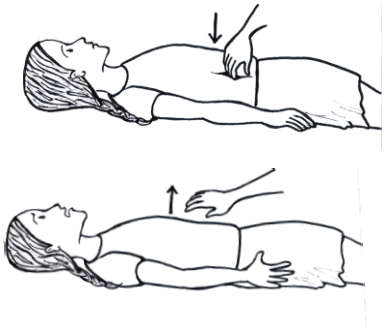
An infected appendix sometimes bursts open, releasing the contents of the gut into the body cavity. This can cause a very dangerous condition called *peritonitis*. Peritonitis is an infection of the lining that surrounds the abdominal cavity.

Symptoms of appendicitis:

- A steady pain in the belly that keeps getting worse.
- Sometimes the pain begins near the bellybutton, but then travels to the lower right side of the belly.
- Vomiting, constipation, loss of appetite, and mild fever.



How to test for appendicitis or peritonitis:



- Ask the child to cough. If this causes a sharp pain in the belly, the child might have appendicitis.
- Slowly, but strongly, push on the child's abdomen just above the hip bone on the *left* side until it hurts a little bit. Then remove your hand quickly. If the child feels a very sharp pain when you take your hand away, she might have appendicitis or peritonitis.
- If no pain occurs when you do this on the left side, try doing the same thing on the right side.

If you suspect a child has appendicitis or peritonitis:

- **Go for help immediately**. Take the child to the hospital right away because she might need to have emergency surgery to save her life.
- **Do not give the child anything to eat or drink**. If she is showing signs of dehydration, you could give her sips of water — but nothing more.
- The child should remain in a half-sitting position until help arrives or you reach the hospital.

Note: If a child's belly becomes stiff and hard, and she feels extreme pain even with the lightest touch, **go for help RIGHT AWAY!** Her life is in serious danger.

This is not a complete guide to first aid. You may encounter emergency situations that are not included here. If for any reason, you feel you are not qualified to provide the right care, do not know what to do, or are overwhelmed, call for help as soon as possible! Knowing when to seek medical help can sometimes be the important difference between life and death.

Your first aid kit

Accidents can and do occur at any time. It is very important to be prepared for emergency situations, because the first aid care that a child gets can be the difference in saving his life, or preventing a more severe injury or infection. Each home should have a fully stocked first aid kit that is accessible to all staff members. The children should all know where the first aid kit is located. They should also know which adult to go to in an emergency, and also how to call for a doctor. All of your staff people should study this book and know how to use your first aid kit. You may also want to hold safety meetings once a month or so to review safety procedures, and allow the children and staff to ask questions about what to do in the case of an emergency.

How to maintain your first aid kit

- Keep all medicine out of reach of children, and follow directions (if provided) about storing each medicine. Remember, any medicine can be poisonous in the wrong dosage. You may want to keep first aid supplies like bandages in a separate location from medications.
- Keep all medicines labeled properly and make sure the directions for use are kept with the medicines.
- Keep medical supplies in a clean, dry place. Try to protect instruments, gauze, and cotton from insects and rodents by keeping them in plastic bags.
- Make sure you have an emergency supply of medicine on hand at all times. Each time medicine is used, make sure that there is enough left for use in an emergency situation. If there isn't, restock the medicine as soon as possible.
- Check the **expiration date** on each medicine regularly. If the medicine is expired or appears damaged, dispose of it and get new medicine.

The home first aid kit

At minimum, each home should have the following things in its medicine kit. *When fully stocked*, these supplies should be enough to treat about 20-30 people. Depending on the size of your home, it might be necessary to increase the amounts of certain medicines or first aid materials. Feel free to add home remedies that you like to use in the spaces at the bottom of page 142, and to add other items to your first aid kit as you see fit. Remember to restock items as you use them, or you will find yourself lacking important supplies when it matters!

Item	Recommended amount
For Wounds and Skin Problems	
Plastic/rubber/latex gloves	1 box
Sterile gauze pads (individually sealed)	30
Sterile bandages of different sizes ("*Band-aids*")	Several boxes
Cotton	1 large package or roll
Roll of adhesive tape	2 rolls
Bandage rolls of different sizes	1 roll of each size
Disinfectant soap/cleansing agent	2 bars (or bottles if liquid)
Moist towels/wipes	1 box or package
70% alcohol solution, or sealed alcohol wipes	¼ liter or 1 package if using wipes
Hydrogen peroxide in a dark bottle	1 bottle
Antibiotic ointment (such as *Neosporin*)	1 large tube
Petroleum jelly (such as *Vaseline*), in a jar or tube	1 jar or tube
White vinegar	½ liter
Clean scissors (to be used **only** for first aid)	1 pair
Tweezers (also called *forceps*)	1 pair
Plastic bags for disposing of bloody and used materials, and for keeping supplies clean and dry	Several
For measuring temperature	
Thermometer for mouth	2
Thermometer for rectum	2
For fever, pain, and other common symptoms	
Acetaminophen (*Tylenol*)	1 large bottle
Ibuprofen (*Advil, Motrin*)	1 large bottle
Antihistamine	1 large bottle
For scabies, lice and other insects	
Cream and shampoo containing *Permethrin*	1 bottle of cream, 1 bottle of shampoo
For mild eye infections	
Antibiotic ointment for conjunctivitis	1 tube
Saline solution to wash out eyes	1 bottle
For sprains, strains, and other joint injuries	
Elastic bandages of different sizes	3-6 of each size
Reusable compress (cold and hot)	1 or more
Miscellaneous	
Small torch or pen torch	1
Sling for injured arms	1-2
Crutches	1 adjustable pair
Epinephrine (for anaphylactic shock)	At least 1 dose if you have a severely allergic child

Vital Signs

Vital signs are measurements that you can take to quickly assess if a person's basic body functions are working normally. Though an abnormal vital sign is not an immediate cause for panic, these can be important indicators for certain illnesses.

Temperature:

There are two different temperature scales. In India, the Centigrade scale is used most often. The other scale is called Fahrenheit, and it is used primarily in the United States.

A healthy temperature is about 37°C. A temperature below 35°C is too low. Between 37°C and 39°C is a mild fever. A temperature above 39°C is a high fever.

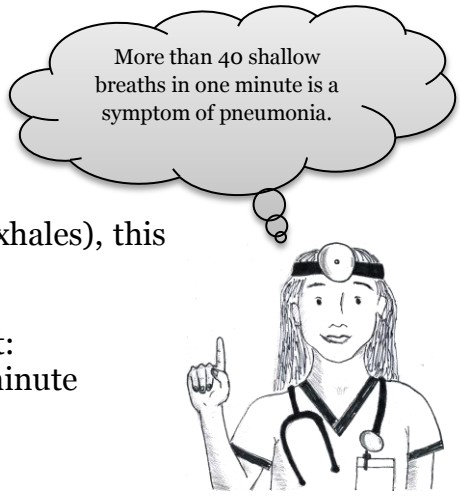
Heartbeat (Pulse):

A person's heartbeat varies a lot throughout the day. When you perform physical activity, your heart must pump faster to provide blood to your body. When you have a fever, your heart also pumps faster. To count a person's heartbeat, put your first two fingers on the inside of the person's wrist, towards the thumb side, and feel for the heartbeat (*pulse*). Looking at a watch or clock, count the number of beats in a minute.

These are normal heart rates for a person at rest:

Adults: 60-80 beats per minute
Children: 80-100 beats per minute
Babies: 100-140 beats per minute
Newborn babies: 120-160 beats per minute

When a person has a fever, the heart will beat up to 20 beats per minute more for each degree of fever (in Centigrade).



Breathing (Respiration):

Each time a person breathes in (inhales) **and** out (exhales), this counts as *one breath*.

These are normal respiration rates for a person at rest:

Adults and older children: 12-20 breaths per minute
Children: up to 30 breaths per minute
Babies: up to 40 breaths per minute
Newborns: 30-60 breaths per minute

Diagnosing by Symptom

Use this guide if a child has a general symptom (fever, cough, diarrhea) to look for diseases that might cause other symptoms the child is experiencing. This might help you to identify the child's illness.

<u>Fever</u>: These are some of the illnesses that cause fever. If a child has a fever, check here to match other symptoms of common illnesses.

Disease	Other Symptoms	
Malaria (pg. 94)	• At first, the child may have a fever every day, and then a fever may occur every 2 or 3 days. This pattern of fever may vary, so anyone with unexplained fevers should be tested for malaria. • Chills • Runny nose, cough, and other signs of respiratory infection • Burning urination and/or lower abdominal pain	• Diarrhea/dysentery • Skin rash/infections • Painful swelling of joints • Swollen lymph nodes • Seizures and periods of unconsciousness may indicate malaria of the brain (cerebral malaria) • Chronic malaria often causes anaemia and an enlarged spleen
Typhoid fever (pg. 58)	*First week*: • Headache, sore throat, and often a dry cough • The **fever** goes up and down, but rises a bit more each day until it reaches 40°C or more. • Inability to drink or take liquids • Vomiting • Diarrhea • Constipation (being unable to have a bowel movement) *Second week*: • High **fever** with a lower pulse than you would expect.	• A few pink spots may appear on the body • Quivering • Delirium • Weakness, weight loss, dehydration • A **fever** of 40°C by the 6th day of sickness *Third week*: • If there are no complications, the **fever** and other symptoms slowly go away
Meningitis (pg. 101)	• **Fever** • Very bad headache • Stiff neck. • The back is too stiff to put the head between the knees • In babies under one year old: the *fontanel* (soft spot on top of the head) will bulge out • Vomiting • Rash • Fatigue	• Sometimes the child will have seizures. • The child often gets worse and worse and only becomes quiet when he loses consciousness. • Tubercular meningitis develops slowly, over days or weeks. • The child may cry in a strange way (the 'meningitis cry').

HIV/AIDS (pg. 111)	• A **fever** for longer than one month, sometimes with chills or sweating at night • Gradual weight loss • Diarrhea for longer than a month • Thrush • Feeling tired all the time	• A bad cough that lasts longer than a month. • Swollen lymph nodes • Rashes or dark patches on the skin. • Warts or sores that do not go away, especially around the genital area and buttocks
Skin Infection (pg. 70)	• **Fever** • Boils • Red, hot, irritated, and swollen wound	• Pus-filled, oozing wounds (pustules) • Bad smelling wound
Pneumonia (pg. 53)	• **Fever** • Shallow, fast breathing • Lower chest wall indrawing while breathing • Cough, sometimes with mucus	• Crackling sounds coming out of the chest when breathing • Grunting/wheezing • Chest pain • Nasal flaring
Dengue Fever (pg. 97)	• Sudden high **fever** and chills lasting 2-7 days. • Painful body aches • Headache, with pain behind the eyes • Sore throat • The child feels very weak and ill. • After 3 to 4 days of sickness, the child feels better for up to 2 days.	• The illness relapses for 1 or 2 days, often with a rash that begins on hands and feet. • A severe form of dengue may cause fever and bleeding into the skin (looks like small dark spots), or dangerous bleeding inside the body, called hemorrhagic fever.
Chikungunya (pg. 56)	• **Fever** • Joint pain and swelling • Headache • Fatigue • Nausea • Vomiting	• Muscle pain • Rash • Fatigue and joint pain lasting weeks after the other symptoms
Viral Fever (pg. 55)	• **Fever** • Sore throat • Muscle and/or joint aches • Runny or congested nose • Red, burning eyes • Skin rash	• Fatigue • Chills • Headaches • Cough • Breathlessness
Measles (pg. 100)	• **Fever** • Rash • Cough, runny nose, red eyes • Mouth ulcers • Corneal clouding • Painful joints	• Diarrhea • Tiny white spots in the mouth • Rash all over the body • Black spots on the skin (serious)

Polio (pg. 103)	• Symptoms are similar to a cold such as **fever** and sore throat • Symptoms generally appear 7-10 days after coming into contact with someone who has polio, but could be anywhere from 4 to 35 days after exposure. • Nausea • Vomiting • Stomach pains • Constipation	Severe Symptoms: • Stiffness in the back or in the legs • Muscle cramps or muscle twitching • Loss of reflexes • 5-10 days after first symptoms: paralysis of legs or arms which eventually causes the limb to become thinner and weaker and eventually malformed.
Chicken Pox (pg. 63)	• Mild **fever** • First, many small, red, itchy spots appear • Spots turn into little pimples or blisters that pop and form scabs	• Spots begin on the body and spread to the face, arms, and legs • Spots, blisters and scabs may occur at the same time
Dysentery (pg. 88)	• **Fever** (sometimes, but not always) • Watery diarrhea that contains blood and mucus • Severe abdominal pain • Dehydration • Nausea, chills, and/or vomiting	• Bleeding from the rectum (anus) • Loss of appetite and weight loss • Fatigue • Convulsions • Expanding belly
Tuberculosis (pg. 108)	• **Fever** in the evening and night sweats • A cough lasting longer than 3 weeks, which is often worse in the morning • Pain in the chest or upper back and shoulder blades • Chronic weight loss and increasing weakness *In serious or advanced cases*: • Coughing up blood • Pale, waxy skin. • Voice becomes hoarse	In young children: The cough may not be severe. Look for: • Weight loss • Fever • Lightened skin color • Swelling in the neck lymph nodes, or the belly
Influenza (pg. 52)	• **Fever** • Chills • Cough • Sore throat • Runny or stuffy nose	• Body aches • Headaches • Fatigue • Vomiting • Diarrhea
Parasites (pg. 65)	• **Fever** • Stomach pain, vomiting, diarrhea • Coughing • Loss of appetite • Swollen belly	• Blood in feces or urine • Fatigue and listlessness • Stunted growth • Lower cognitive abilities

<u>Cough</u>: These are some of the illnesses that produce a cough. If a child has a cough, check here to match other symptoms of common illnesses.

Disease	Other Symptoms	
The Common Cold (pg. 50)	• **Cough** • Runny nose • Sneezing • Joint pain	• Sore throat • Mild headache • Mild diarrhea
Influenza (pg. 52)	• **Cough** • Fever • Sore Throat • Body aches • Fatigue	• Diarrhea • Chills • Runny or stuffy nose • Headache • Vomiting
Tuberculosis (pg. 108)	• A **cough** lasting longer than 3 weeks, which is often worse in the morning • Fever in the evening and night sweats • Pain in the chest or upper back and shoulder blades • Chronic weight loss and increasing weakness *In serious or advanced cases*: • **Coughing** up blood • Pale, waxy skin. • Voice becomes hoarse	In young children: The **cough** may not be severe. Look for: • Weight loss • Fever • Lightened skin color • Swelling in the neck lymph nodes, or the belly
Pneumonia (pg. 53)	• **Cough**, sometimes with mucus • Fever • Shallow, fast breathing • Lower chest wall indrawing while breathing	• Crackling sounds coming out of the chest when breathing • Grunting/wheezing • Chest pain • Nasal flaring
Measles (pg. 100)	• **Cough** • Rash • Fever, runny nose, red eyes • Mouth ulcers • Corneal clouding • Painful joints	• Diarrhea • Tiny white spots in the mouth • Rash all over the body • Black spots on the skin (serious)
Malaria (pg. 94)	• **Cough** • Fast breathing • Chills • Diarrhea and dysentery • Painful, swelling joins • Rash, lasting about five days • Seizures	• Fever, runny nose, and other signs of respiratory infection • Burning urination, and other lower abdominal pain

Typhoid Fever (pg. 58)	*First week*: • Headache, sore throat, and often a dry **cough** • The fever goes up and down, but rises a bit more each day until it reaches 40°C or more. • Inability to drink or take liquids • Vomiting • Diarrhea • Constipation (being unable to have a bowel movement) *Second week*: • High fever with a lower pulse than you would expect.	• A few pink spots may appear on the body • Quivering • Delirium • Weakness, weight loss, dehydration • A fever of 40°C by the 6th day of sickness *Third week*: • If there are no complications, the fever and other symptoms slowly go away
Severe Anaemia (pg. 16)	• **Cough** • Pale skin, eyelids, gums, and fingernails	• Heavy bleeding after a small injury • Weakness and fatigue
Viral Fever (pg. 55)	• **Cough** • Fever • Sore throat • Runny or congested nose • Red, burning eyes • Skin rash	• Fatigue • Chills • Headaches • Breathlessness • Muscle and/or joint aches
HIV/AIDS (pg. 111)	• A bad **cough** that lasts longer than a month. • A fever for longer than a month, sometimes with chills or sweating at night • Gradual weight loss • Diarrhea for longer than a month • Thrush	• Feeling tired all the time • Swollen lymph nodes • Rashes or dark patches on the skin. • Warts or sores that do not go away, especially around the genital area and buttocks
Allergies (pg. 60)	• **Cough** • Sneezing • Itchy eyes • Itchy skin	• Runny nose • Rash • Swelling • Anaphylactic shock
Parasites (pg. 65)	• **Cough** • Stomach pain • Fever • Vomiting • Diarrhea • Loss of appetite	• Swollen belly • Blood in feces or urine • Fatigue and listlessness • Stunted growth • Lower cognitive abilities

<u>Diarrhea</u>: These are some of the illnesses that cause diarrhea. If a child has diarrhea, check here to match other symptoms of common illnesses.

Disease	Other Symptoms	
Cholera (pg. 87)	• Watery **diarrhea** that looks like rice-water (most likely during a cholera outbreak)	• Severe dehydration • Leg cramps • Vomiting
Dysentery (pg. 88)	• Watery **diarrhea** that contains blood and mucus • Fever (sometimes, but not always) • Severe abdominal pain • Convulsions • Dehydration • Expanding belly	• Nausea, chills, and/or vomiting • Bleeding from the rectum (anus) • Loss of appetite and weight loss • Fatigue
Malnutrition (pg. 11)	• **Diarrhea** • The child is not eating enough food, or a balanced diet • The child becomes ill more frequently and takes longer to get well than a well-nourished child • Thin body with a round stomach	• Thinning hair • Child is small, thin, and is not growing as fast as a well-nourished child • Child is skin and bones • Thin upper body, with swollen leg, arms, and stomach that are covered in sores
Parasites (pg. 65)	• **Diarrhea** • Stomach pain • Coughing • Fever • Vomiting • Loss of appetite	• Swollen belly • Blood in feces or urine • Fatigue and listlessness • Stunted growth • Lower cognitive abilities
Typhoid fever (pg. 58)	*First week*: • **Diarrhea** • Headache, sore throat, and often a dry cough • The fever goes up and down, but rises a bit more each day, reaching 40°C or more • Inability to drink or take liquids • Vomiting • Constipation (being unable to have a bowel movement) *Second week*: • High fever with a lower pulse than you would expect	• A few pink spots may appear on the body • Quivering. • Delirium • Weakness, weight loss, dehydration • A fever of 40°C by the 6th day of sickness *Third week*: • If there are no complications, the fever and other symptoms slowly go away

Malaria (pg. 94)	• **Diarrhea**/dysentery • At first, the child may have a fever every day, and then a fever may occur every 2 or 3 days. This pattern of fever may vary, so anyone with unexplained fevers should be tested for malaria. • Chills • Runny nose, cough, and other signs of respiratory infection • Skin rash/infections	• Burning urination and/or lower abdominal pain • Painful swelling of joints • Swollen lymph nodes • Seizures and periods of unconsciousness may indicate malaria of the brain (cerebral malaria) • Chronic malaria can cause anaemia • Children with HIV/AIDS can get sick faster
HIV/AIDS (pg. 111)	• **Diarrhea** for longer than a month • A bad cough that lasts longer than a month. • A fever for longer than one month, sometimes with chills or sweating at night • Gradual weight loss • Thrush	• Feeling tired all the time • Swollen lymph nodes • Rashes or dark patches on the skin. • Warts or sores that do not go away, especially around the genital area and buttocks
Measles (pg. 100)	• Ten days after being around someone who has measles, children who have never had measles before may experience symptoms of a cold which include: fever, runny nose, red sore eyes, and a cough • As the child gets sicker, her mouth may be very sore and he or she may have **diarrhea** • After two or three days, tiny white spots, like grains of salt, appear in the mouth.	• One or two days after that a rash appears behind the ears and on the neck, and then spreads to the face, the body, then the arms and legs. The rash will last about five days. • Clouding of the cornea • In cases of very severe measles there are scattered black spots caused by bleeding into the skin. If this happens, get medical help immediately.
The Common Cold (pg. 50)	• Sometimes mild **diarrhea** • Runny nose • Cough • Sore throat	• Sneezing • Mild headache • Joint pain
Influenza (pg. 52)	• **Diarrhea** • Fever • Chills • Cough • Sore throat	• Runny or stuffy nose • Body aches • Headaches • Fatigue • Vomiting

Notes

This is a space for you to write reminders, remedies, important phone numbers, or any other notes you feel are necessary in providing the best care possible for your home.

Notes

Notes

Additional Sources of Information

Heymann D. *Control of Communicable Diseases Manual*. 19th ed. Washington, D.C.: American Public Health Association; 2008.

Pocket Book of Hospital Care for Children. 2nd ed. Geneva, Switzerland: World Health Organization; 2009

Vanderkooi, M. *Village Medical Manual*: *Vol. 1 Principles and Procedures*. 5th ed. Pasadena, CA: William Carey Library; 2000.

Werner D, Thuman C, & Maxwell J. *Where There is No Doctor: A Village Health Care Handbook*. 3rd ed. Berkeley, CA: Hesperian; 2010.

Where There is No Doctor is also fully available online at:
http://site.ebrary.com/lib/hesperian/docDetail.action?docID=10411911

Other useful websites to visit:

The World Health Organization: www.who.int

United Nations Children's Fund (UNICEF): www.unicef.org

India's food pyramid information: www.foodpyramidindia.org

India's vaccination program information: www.vaccineindia.org

Public Health Foundation of India: www.phfi.org

U.S. Centers for Disease Control and Prevention: www.cdc.gov

Glossary of Terms

Abdominal: Relating to the area around the stomach, between the ribs and the pelvis.
Also called: belly, midsection

Abscess: a build-up of pus due to infection. A boil is a type of abscess.

Abuse: Any action that intentionally harms or injures another person. Abuse can be physical, emotional, or sexual.

Acute: An "acute" illness comes on rapidly and can be very serious. The opposite of acute is "chronic," meaning that the illness lasts a long time, may come on slowly, or can go away for a while and come back again later on.

Allergen: A substance foreign to the body that can cause a reaction, such as pollen or mold.

Ameba: A one-celled organism that can sometimes cause disease, especially diarrhea.
Also spelled: amoeba

Anaphylactic shock: A severe, immediate, whole body reaction to an allergen. It may involve several symptoms, but all are serious and require medical attention.
Also called: anaphylaxis, allergic shock

Anaemia: When the blood isn't able to carry as much oxygen to the body as it normally would, resulting in weakness and fatigue.

Antibiotics: Medicines that fight infections. Always follow doctors' orders when taking antibiotics. It is very important to take all of the prescribed medication, even if you feel better before the course is complete.

Anticoagulant: A chemical that prevents blood from clotting and forming a scab.

Antihistamine: Medicines that treat allergic reactions, and also help with some symptoms of colds and flus.

Antiseptic: An agent (such as a cream or ointment) that reduces the chances of infection by killing germs.

Artery: A blood vessel that carries blood from the heart to other body parts. When arteries are cut, they bleed a lot.

Bacteria: Single-celled organisms (very small) that live in all environments. Some bacteria are harmful to humans and can cause disease.
Singular form: bacterium

BCG: the abbreviation for the vaccination against tuberculosis

Bullying: Using force or intimidation to make someone do something, to threaten them, or to make them feel lesser.

Calorie: A way of measuring the amount of energy contained in the foods we eat.
Also called: kilocalorie

Cancer: A group of diseases where cells grow out of control (called a tumor), damaging surrounding tissues, and eventually killing the person if treatment does not effectively kill all of the cancer cells.

Carbohydrate: Carbohydrates are the main source of energy for our bodies. The two main forms of carbohydrates are sugars and starches. This nutrient comes mostly from grains, like rice and cereals.

Glossary of Terms

Cardiovascular Disease: A chronic disease of the heart and/or blood vessels
Also called: heart disease, CVD

Cataract: A clouding in the eye that can result in blindness if it is not treated.

Cavity: A hole in a tooth because of tooth decay caused by leftover food particles and bacteria in the mouth.

Chronic: An illness that lasts for a long time, or constantly comes and goes. The opposite of "acute."

Cirrhosis: Scarring of the liver usually due to chronic hepatitis or alcohol abuse. Cirrhosis is irreversible and can lead to liver failure and other complications.

Compress: A cloth dipped in either hot or cold clean water that is placed over a wound.

Concussion: A head injury, during which the person may lose consciousness briefly.

Conjunctivitis: A highly contagious eye infection requiring antibiotic ointment and careful management.
Also called: pink eye

Constipation: When it is difficult to have a bowel movement, when stool is hard, or bowel movements are infrequent.

Contagious: Disease that is easily spread from person to person
Also called: communicable, infectious

Contaminate: To make something dirty, polluted, or poisonous by adding chemicals, waste, or disease.

Convulsions: Seizure; sudden contractions or movements of muscles.
Also called: spasms, fits, seizures

Cornea: The clear covering of the eye.

Defecate: Release feces from the body.
Also called: bowel movement

Deficiency: Not having enough of something, such as not having enough vitamins or minerals in the body.

Dehydration: Excess loss of water from the body, which occurs during sickness and especially with diarrhea.

Delirium: Mental confusion; going in and out of consciousness and hallucinations often caused by fever, head injury, and other sickness.
Also called: disorientation, confusion

Depression: A mental illness characterized by severe and chronic sadness, hopelessness, withdrawal, and loss of interest.

Diagnosis: The identification of what is causing a disease, condition, or reaction.

Dilated Pupil: The pupil is the black portion in the center of the eye. When it is dilated, it expands in size, and is larger than normal.

Diarrhea: Frequent loose and watery stools.

Dietary Fat: Found in food, especially in animal products such as meat and dairy, and foods that are oily or fried.

Dietary Fiber: The parts of fruits and vegetables that are not digestible, and help keep the digestive system working properly.
Also called: roughage

Drug Resistance: When medicines become less effective or stop working.

Glossary of Terms

Dysentery: Diarrhea with blood and/or mucus.

Edema: A collection of fluids.
Also called: swelling

Elevate: In medical care, to "elevate" a body part means that it is held higher than the level of the heart. This helps keep excess fluids from building up.

Eliminate: A disease is no longer found in a specific country or region. Polio has been eliminated from much of the world.

Epidemic: When there are more cases of a certain disease than you would expect at the same time.
Also called: outbreak

Eradicate: A disease is no longer found anywhere, except perhaps in a contained laboratory. Smallpox has been eradicated.

Fatigue: Extreme tiredness, exhaustion.
Also called: lethargy, weariness

Fever: An internal body temperature above 37°C. A fever is usually a symptom of disease or infection.

First Aid: Emergency treatment for a person who is sick or has been injured.

Fluorosis: Staining and/or spotting on the teeth due to high levels of fluoride in the drinking water.
Also called: dental fluorosis

Fontanel: The soft spot or depression on top of a baby's head.
Also called: soft spot

Food poisoning: An outbreak of illness (usually including nausea, vomiting, diarrhea, and stomach cramps) due to poorly stored or prepared food or drink.
Also called: food-borne illness

Fracture, compound: A broken or cracked bone that pierces the skin.

Fracture, simple: A broken or cracked bone that does not pierce the skin.

Genetic: A trait or characteristic passed from parent to child.
Also called: hereditary, inherited

Genitals: Private parts.

Goiter: A swollen gland on the neck that results from iodine deficiency.

Grief: Sorrow, mourning, or sadness because of the death of a loved one.

Hallucination: False or distorted experiences, such as seeing or hearing something that is not real.

Hemorrhagic Fever: A type of virus that damages the body's organs and blood vessels, causing bleeding inside and outside the body. These types of viruses can range from moderate to life-threatening, depending on the situation.

Hives: Extremely itchy welts or red, inflamed patches on the skin caused by an allergic reaction.

Hygiene: Practices that maintain cleanliness and prevent sickness.

Immune System: The system of cells, tissues, and organs that protect the body from invading diseases.

Immunity: The body's ability to resist a disease, either through vaccination or previous exposure.

Infection: Invasion of bacteria, viruses, or other harmful material that causes injury and disease.

Glossary of Terms

Inflammation: When part of the body becomes swollen, and is often red, tender, hot, and painful.

Instinctive Drowning Response: A set of behaviors that occur involuntarily in a person who is drowning, or very close to drowning.

Jaundice: A yellowing of the skin and white parts of the eyes. Jaundice is a symptom of disease, not a disease by itself .

Joint: Where two bones come together and allow for movement. Knees, elbows, shoulders, ankles, and wrists are joints.

Kwashiorkor: Severe protein-energy malnutrition characterized by swelling in the feet, hands, and face.
Also called: wet malnutrition

Lymph Nodes: Small glands located throughout the body that are part of the immune system. They filter dead bacteria, viruses, and other dead tissue from the lymphatic fluid. When an infection invades the body, they swell and produce a cell called a *lymphocyte* that helps fight off the infection.

Marasmus: Severe protein-energy malnutrition characterized by a very thin, emaciated body.
Also called: dry malnutrition

Macronutrient: Carbohydrates, proteins and fats; the largest and most important components of our diet.

Micronutrient: Vitamins and minerals that the body needs in small amounts to help with growth and development.

Migraine: A very severe headache, often including nausea, vomiting, blurred vision, and throbbing pain on one or both sides of the head.

Minerals: Minerals are necessary for the proper function and development of the body. They are found in the animal- and plant-derived foods that we eat.

Mosquito-borne: Disease that is transmitted to a person through a mosquito bite.

Nausea: Feeling the need to vomit.
Also called: dizziness, wooziness, queasiness

Neglect: Failure to take care of a child's physical and emotional needs.

Nerves: The body's system for sending messages to other parts of the body, such as pain, or feelings of hot and cold.

Nutrition: Eating the foods needed to maintain health and growth.

Obesity: Being extremely overweight.

Parasite: An organism that lives on or in another organism (the host), and feeds off them.

Perspiration: Sweating.

Pulse: The regular beats of the heart that you can feel in several parts of the body. The most common site to check for a pulse is the wrist.
Also called: heartbeat

Pressure Points: Points on the body where, using your fingers, you can push the artery against a bone to inhibit or slow down the flow of blood.

Processed Foods: Commercially processed foods that are made to be convenient, and have chemicals and flavors added to them.

Glossary of Terms

Protein: Nutrients from foods like meat, dairy, and legumes that help the body grow and repair itself.

Pupil: The black circle in the center of the eye. The pupil changes size to let in more or less light.

Pus: A yellowish-white oozy substance found in wounds and infected areas, that indicate that the body is fighting an infection in that area.

Relapse: A disease or condition gets worse after getting better.

Respiratory: Having to do with breathing.

Saturated Fats: Fats that are greasy, waxy solids that are naturally found in meat and dairy products.

Seizures: Physical symptoms such as spasms, jerking movements, fits, and loss of consciousness that result from abnormal brain activity.
Also called: fits, spasms, convulsions

Shock: A life-threatening collapse of the body's blood-pumping system due to severe injury or blood loss. You can recognize it if a person is pale, breathing rapidly, sweating, has a quick, weak pulse, and is confused.

Spasm: A seizure; sudden and voluntary muscle movement.

Splint: Anything used to keep a broken bone from moving. You can make a splint out of a stick or other stiff material.

Sterile: The absence of all live bacteria and germs; NOT the same as "clean."

Stool: Feces

Stress: The body's reaction to mental, emotional, and physical changes. This causes mental tension, anxiety, anger, and nervousness.

Symptom: A sign of disease.

Toxin: A poison that comes from a germ, plant, or animal that can cause a disease or bad reaction.

Trans-fat: A type of fat that is made when a normally liquid fat (oil) is made to be solid at room temperature and makes food last longer.

Transmission: The spread of disease from one person to another.

Unsaturated Fats: Fat, or oil found in many vegetables; the healthiest type of fat.

Vaccine: A small amount of weakened or killed disease that is injected or consumed that helps the body's immune system learn how to fight against disease. Those who are vaccinated usually won't get the disease when exposed to it.
Also called: immunizations, shots

Vein: A blood vessel that carries blood from parts of the body back to the heart.

Virus: A very small, infectious agent that causes disease and can reproduce and spread within the body.

Vitamins: Vitamins help the body grow and develop normally. They are found in nutritious foods and are part of a healthy diet.

Wound: An injury involving broken skin. Wounds may become infected and should be treated as soon as possible.
Also called: cut, laceration, injury, lesion, gash

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About World's Children

Children are often the helpless and overlooked victims of poverty and disaster and yet they will shape our collective future. World's Children believes all children deserve the chance to realize their full potential. Through the provision of food, shelter, health care, education, safety and love, we strive to effect lasting changes in the quality of life for orphaned, abandoned, and abused children, children affected by HIV/AIDS, and girls from poor families who are not loved or wanted simply because they are girls.

World's Children has cared for orphaned and destitute children around the world for more than 47 years. We currently support 1,200 children in 42 children's homes in India, the Philippines, Kenya, Mexico, and Guatemala through child sponsorship and our scholarship program, which affords more than 70 students the opportunity to attend higher education.

World's Children was founded by the late Rev. Edwin and Mable Purviance in 1965, seven years after they lost an infant at childbirth. Realizing the grief they felt was akin to the loss and helplessness felt by children who lose their parents, the Purviances started World's Children to support orphaned children in developing countries.

Using their own savings, they traveled to Central America and Asia seeking orphanages that were providing loving care but struggling to meet expenses. They selected appropriate orphanages (also called homes and hostels) and began making appeals for support back in the US. Today the organization is administered by the founders' son, David Purviance, and his wife Jean. Prior to assuming responsibility for World's Children, David and Jean lived in India for five years where they assisted with tsunami relief efforts, provided water wells and toilets to villages, schools and orphanages, and worked with destitute street children. Consequently, World's Children is a hands-on, grassroots charity with an intimate understanding of the problems that face forsaken children and destitute families. We are not a large, corporate-style organization, removed from the children we support.

World's Children is a humanitarian organization. We serve children of all backgrounds, and welcome all to join us in bettering the lives of children in need. Our organization works with carefully screened and selected orphanages and children's hostels to provide a loving and nurturing environment where children with traumatic backgrounds can start a new life. We invite you to visit our website and learn more about our work. If you know of someone working with children who would like a copy of this book or would like to discuss our work, we would love to hear from you.

www.worldschildren.org
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This handbook was originally created to provide medical information to the orphanages and hostels that World's Children supports, primarily in India. But as word has spread and demand has grown, we realize it is really for any childcare worker who does not always have access to a trained medical professional or the financial resources to seek medical attention. We believe that all children should receive medical care when needed, and that each and every child deserves to have good health, safety, nutrition, education, and happiness in his or her life. It is our hope that The Healthy Child Handbook will help to not only treat disease, but to prevent it from occurring through good hygiene and sanitation practices, adequate nutrition, and vaccination against common childhood diseases.

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World's Children

Every child is our child

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This book is provided free of charge to those who nurture and care for vulnerable children.