

The most important ways to keep all children healthy are to give them lots of love, nutritious food, and safe water to drink, along with taking care to prevent childhood illnesses. Children with HIV need extra attention to these same things, plus ART to treat their HIV. This is because their ability to fight illness is weakened by HIV. See pages 5 to 6.

To help children avoid illness, especially children with HIV:

• give them more food.



- notice and treat illnesses quickly.
- Mercy, what a cough! Are you well? You seem hot.



 help them feel loved, accepted, and cared about.



- take extra care with cleanliness.
- give ART and other medicines that prevent illnesses.



 support mothers and others who young children depend on to survive.



## **Good nutrition for children**

Good nutrition is important for all children. It helps them grow physically, gives them the energy they need to develop in both body and mind, and protects them from illness.

Good nutrition is even more important for children living with HIV, as these children need more food to stay healthy than other children their age. Even though you cannot see it, the body of a child with HIV must work very hard to fight HIV. Medicines for HIV also work better when children have enough to eat.



Children with HIV more easily develop malnutrition or diarrhea. Having HIV also makes it more difficult for them to recover from either problem. Taking ART will help them avoid illness and get more nutrition from the food they eat. For signs of malnutrition and how to treat it, see pages 245 to 248, and for diarrhea, see pages 214 to 223.

#### Malnutrition causes diarrhea — diarrhea causes malnutrition

For all children, not having enough to eat (malnutrition) and being ill each make the other worse. When children are ill, they cannot make use of all the nutrition from the food they eat, and they often eat less, making them even weaker and more likely to stay ill or become ill again soon.

Malnutrition can be caused by not having enough food, not having enough different kinds of food, or because an illness such as diarrhea makes it hard to absorb food. Malnutrition is very dangerous for children with HIV because it makes their weak immune systems even weaker. Any child who is malnourished gets other infections much more easily.



1. Not enough food (malnutrition) harms the whole body, including the gut.





2. The gut, damaged from malnutrition, cannot absorb food well. The food passes through too quickly. This is diarrhea.

3. Constant passing of stool drains the body of nutrients and weakens the child. Lack of nutrients from food is malnutrition.

## What to feed babies

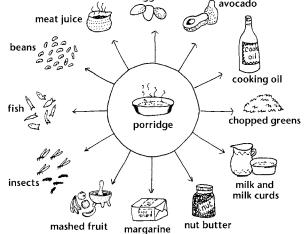
For the first 6 months, the best food for babies is breast milk, even if the mother has HIV. To help a baby grow well up to 6 months old, breastfeed often and avoid giving other foods and drinks. For more about breastfeeding and HIV, see Chapter 9.

### Feeding babies older than 6 months

Starting when a baby is about 6 months old, giving breast milk alone is not enough. It is time to add other foods. But also keep breastfeeding! To add foods, start with 1 or 2, like adding a little oil to a porridge made from your main food, such as rice, maize, cassava, wheat, or millet. If you add water later, after making your porridge, use boiled or treated water.

Soon add a spoonful or so of other foods, including:

- soft cooked beans or ground bean meal, pounded groundnuts, eggs, dairy, or dried fish flour. These protein foods help the baby's body and mind grow well.
- vegetables and fruits, such as well-cooked squash, peas, carrots, shredded or pounded green leafy plants or tomatoes. Add mashed fruits such as papaya, bananas, and mangoes. Use any orange or green foods eaten where you live. Vegetables and fruits have vitamins and minerals that help us stay healthy and fight infection.



Foods should be clean and unspoiled, soft and easy for the child to eat, and not too spicy or salty. Choose foods that are easy to buy or grow where you live, and easy to prepare.

> By feeding himself, a baby learns how to use his hands and fingers to hold small things.





#### Feed babies often

Babies have small stomachs so they need to eat many small meals during the day as well as breastfeed. Usually 3 to 5 small meals are enough if you are breastfeeding. If you are not breastfeeding, feed your baby 5 to 7 small meals. Different foods help our bodies in different ways, so eating a variety of foods is important.

New foods sometimes upset a baby's stomach. Try to give your baby one new food at a time. First give her only a little bit, then slowly give more. When the baby is used to the new food, then start another new food.

#### How and when should a woman with HIV stop breastfeeding?

When you are on ART and your HIV is well controlled, HIV is not likely to spread from breastfeeding, so you can breastfeed for a year or more. Breast milk is the healthiest food for a baby and protects the baby in many ways. Many women stop breastfeeding when a child is older than 6 months but younger than 2 or 3 years old.

When a woman stops breastfeeding (sometimes called weaning), she needs to have enough other foods to feed her child. This change in foods can be difficult for a child. And the risk of malnutrition is worse for children with HIV.

If you are able to give plenty of healthy foods and other milks to your baby, and you want to stop breastfeeding, do this slowly, over about 3 weeks.

Feed your baby soft, mashed, healthy foods 5 or 6 times a day (or more). You can also boil animal milk to give the baby.

If you do not have enough food or enough different foods to give the baby, it is better to keep breastfeeding until your baby is 2 years old or more.

The story on page 157 shows how one community helped families feed their young children enough.



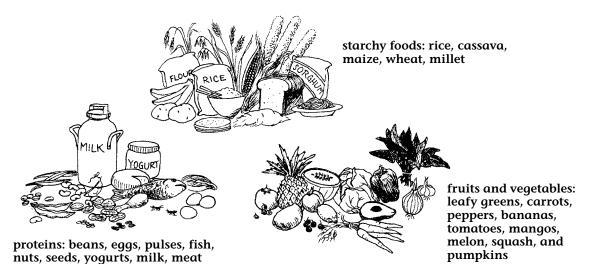






### Nutrition after the first year

Children need the same variety of healthy foods anyone needs — starchy **main foods** that give us energy, **proteins** that help us grow and develop our minds, and **vegetables and fruits** to help us stay healthy and fight infections.



Feed a child enough food and enough different kinds of foods to stay healthy. You do not need costly foods to have a balanced diet.

To make sure children get enough food:

- For extra energy, add a small spoon of oil to your child's food. Many small children cannot eat enough starch to get all the energy they need.
- Give smaller or disabled children their own food in small bowls. Check to see that each child gets their share, and ask older children or other caregivers to do this as well. Feed girls as much as boys.
- Give children several small meals throughout the day. Four meals is usually good. Try to give more if the child is not breastfeeding.
- Treat diarrhea right away with rehydration drink (see page 217). Diarrhea prevents children from absorbing all they should from their food.

Sweet or fried snacks are found in shops everywhere, and children like them, so it may seem OK to feed them to children. But these and many other packaged foods have too much fat and sugar in them and very little nutrition. Roasted or baked snacks, or fresh fruit, are better for children.



### Vegetables and fruits protect our bodies

Fruits and vegetables are full of vitamins and minerals, which our bodies need to be healthy. A child will get all the vitamins and minerals she needs if you give her lots of vegetables and fruits of different colors, especially orange ones and leafy greens. Vegetables and fruits you grow yourself are just as healthy as imported ones.

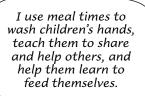
Certain foods, and the vitamins and minerals in them, are especially good for people with HIV. This is because they help build a strong immune system, which helps people with HIV fight infection and disease.

Vitamin A helps fight infection. It also helps us have healthy skin and bones and protects our ability to see. Foods that have a lot of vitamin A include most orange vegetables and fruits, such as carrots, pumpkin, sweet potatoes, papaya, and mango, and green vegetables, such as leafy greens and green peas. Eggs also have vitamin A.

**Zinc** is a mineral that helps children grow well and fight infection, especially diarrhea and pneumonia. It also helps us have healthy skin and nails. Foods with zinc include wild spinach, meats, oysters, eggs, <sup>–</sup> milk products, nuts and seeds, and whole grains. For information about zinc supplements, see page 219.

**Selenium** is a trace mineral (we only need a little) that helps our bodies fight infection. Foods with selenium include Brazil nuts and sunflower seeds, many types of sea fish, coconuts, some fortified cereals, and aloe juice. Just one of these foods each week is enough.

If you have these foods in your community, it is good to feed them to your children. Eat some yourself too. Dark leafy greens, for example, grow all over the world and many have vitamins and minerals to make the body strong and healthy. Talk to healers, midwives, and nurses about local plants that are good for health.









#### Working together to feed babies the very best

In Zambia, many children 2 years old and younger are sickly and do not grow well. Sometimes they become very weak from malnutrition, or even die. Those who live are too small and often lack skills and abilities they would have if they had been given enough food in their first few years. A group of parents, caregivers, health workers, and others formed to work on this problem in Luapula province.



To try to find out why so many children were not growing well, the group visited many villages and homes and asked what everyone fed their babies. One problem was that, since HIV had come to Zambia, advertizing formula and questioning the safety of breast milk had confused families. Another problem was that families did not know how much of what foods were good to give small children.

The group decided to create a recipe book for feeding babies 6 months to 2 years old. As they developed and tested the recipes, they held meetings in the community and learned how to explain what foods children need at this age, and how different foods help a child stay healthy and grow well. Then they used what they learned in the meetings to explain these ideas in the book. The recipes are based on local Zambian foods that most families are able to grow or buy. There are recipes for both rainy and dry seasons, and recipes for feeding sick children. All the recipes were tested to make sure they tasted good to children and worked well for families. See page 309 for how to get this cookbook.

#### Teach children about healthy eating

If you teach your children about foods that keep them healthy, they will eat these foods with less fuss. They will also learn healthy eating habits as they grow older. Have children help grow, collect, wash, and prepare food. Give children a good example by choosing healthy foods over sweets and fried food yourself.



## How to feed a sick child

Sick children need food but often lack the appetite or desire to eat. Do not force a sick child to eat. If the child gags or pushes food out, stop feeding. But keep offering small amounts of food every few minutes and gently encourage eating. Children can take in more food than you think, even by eating only a spoonful at a time. Be patient. It can be frustrating, especially if you are feeling busy or sick too. Ask for help if you become tired or impatient.

Give the foods your child most likes. When children are eating only very small amounts, add a few drops of vegetable oil to their main food to increase the energy in the food. Even better, add a little protein such as beans or egg to the main food if possible.

Do not feed a child lying down — this can cause choking. It is best to hold the child on your lap or sit her up in bed.

If your child vomits, wait 10 minutes and then continue to offer fluids or food.



Offer a breastfeeding baby the breast often, even if she takes only a little milk at a time. When a baby is very weak and cannot suck on the breast, you can squeeze milk from your breast and feed the baby with a clean cup and spoon.

Children with HIV often have a sore mouth from thrush or herpes. These children eat less, because eating is painful. See pages 235 to 240 for how to care for problems in the mouth.

Make sure children keep taking any daily medicines they need. See Chapter 11.



#### When a child is recovering from illness

Good nutrition is most important when children are recovering from illness. This is especially true for HIVpositive babies and children. They need a lot of extra food for a long while after they recover. A child often has a growth spurt after an illness and may need up to twice the amount of food he usually eats. Try to give extra meals or snacks for 2 weeks, especially if the child is acting hungry and is willing to eat.

Also give children with tuberculosis (TB) extra food. Without it they have a much higher risk of dying from their TB. For how to treat TB, see pages 227 to 228.

## Eating enough when you do not have much money or land

Many people struggle to have enough food. The inequality in our world between people who have too much and people who have too llittle, whether of land, money, or power, has to change. We have to find ways to get people with HIV more food, even though so many farmers and wage earners have fallen ill, died, or lost access to land. How can people get enough food?

Many things need to change for everyone to have enough to eat all the time. But one family or one community can usually eat better even if they have little. Here are some ideas that may help (also see Chapter 15).

- Buy healthy foods that are less costly, such as beans and grains.
- Buy food during times of plenty and keep some for times of scarcity.
- Keep chickens for both eggs and meat.
- Buy foods in bulk if you are able to properly store them (in a dry place where no insects or animals can get to the food).
- Feed babies breast milk instead of formula. It is healthier for them, and it costs nothing!
- Do not waste what you have. After cooking beans and vegetables in water, save the water. It is full of vitamins and is very good for you to drink or use to cook grains.

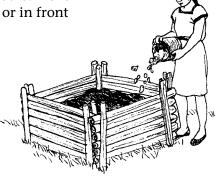


#### Grow more of your own food

Many people already grow food on the land they have available. You might be able to grow a bit more, or plant greens among other crops.

Even in a city, you can grow food. Use a rooftop or a small area near your house, or organize to grow food in a vacant area. You can even grow a few things in a sack or pot on a window sill or in front of your home.

To make a home garden produce more, be easier to care for, and need less water, use compost. To make compost: Mix food wastes and plant waste, such as leaves or grass, with some soil and manure. Let the compost sit and blend together for several months. Then mix it into the ground where you plant. Compost makes your soil stronger and your vegetables grow better.



Make compost from food waste.

You can also change or combine your crops. Some crops wear out the soil while others, such as beans, peanuts, and peas, make the soil stronger. You can grow different crops next to each other, or plant different crops after one another in the same soil. Combining the crops you grow can also help fight pests and plant diseases.

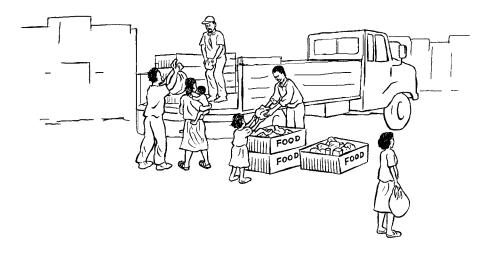


For more information on growing your own food, see A Community Guide to Environmental Health, and also Chapter 15.

#### Help those who have less

Most communities have ways to help those who are hungry or lack other basic necessities. Some do this through their religious organizations. Some use government bodies to provide food or money to people who need it. Schools, childcare programs, places of worship, or community kitchens may provide a daily meal for young children or others who would not eat otherwise.

If you need food, ask for help. There is no shame in asking — the shame should be felt by employers who pay so little that people cannot buy enough food, and by property owners, bankers, and trade ministers who directly or indirectly drive people off the land.



## **Clean water**

We all need water. Drinking plenty of clean water keeps us healthy. We also need clean water for washing and preparing food. But in many places, water has dangerous germs and worm eggs in it that cause diarrhea and other diseases, including cholera and worms. For how to treat these diseases, see Chapter 12: Common health problems.

People with HIV are easily made sick by water that has germs in it. Even if everyone else in the house drinks the water without problems, the person with HIV drinking that water may get diarrhea from germs his body is not strong enough to fight. Young children also get sick more easily from germs in water.

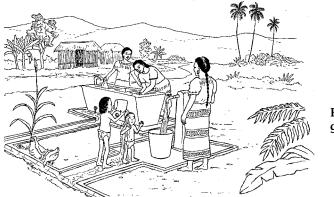


#### How to know when water is OK to drink

You cannot tell that water is safe to drink by how it looks. Water that looks clean may still contain harmful germs, worms, and other sources of health problems. Unless you know it is safe, water should be treated or boiled before it is used for drinking or preparing food.

In most cases, spring water and deep well water are safe, unless there is contamination upstream from field or factory pollution, waste dumps, deep pit toilets, or other sources of germs and toxic chemicals.

Local universities, government agencies, or NGOs may be able to help you test your water for safety. If you doubt the safety of your water, treat it before using it.



Fight illness with a good water supply.

#### How to remove germs from your water

To make water safe for drinking, mixing with food, or washing food or utensils, it must be disinfected. A good first step is to settle any dirt in it and then pour the clear part out through a cloth or other filter to a new clean container. Disinfection works better with water that is clear.

To disinfect water so it is safe to drink, use one of these methods:

• Chlorine bleach (5%). Mix 8 drops of bleach into 4 liters (1 gallon) of water in a container. Let the water and bleach mix for 30 minutes before using. If the water looks dirty, use 16 drops of bleach and shake the mixture several times during the 30 minutes.

#### OR

• Boiling. Heat water until it boils for 1 minute. At elevations over 2000 meters, boil for 3 minutes because the boiling water is not as hot. If you do not have enough fuel for boiling, heat the water so it is too hot to touch — this kills most germs.

#### OR

• Sunlight. Fill clean, clear plastic or glass bottles with water, and close them. Place the bottles where they will be in the sun, away from dust, children, and animals, and leave them for at least 6 full hours, or for 2 days if the weather is cloudy. Water can be stored for 1 or 2 days in the same bottle. Sunlight purification works best in very hot places.

#### OR

• A filter like this, with sand and charcoal, is slow but makes water safe to drink in one step. See A Community Guide to Environmental Health from Hesperian for more ways to build filters, how to make stoves that use less fuel for boiling water, and other ideas for making water safe.

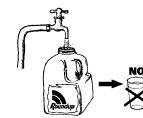
**Warning**: These methods do not remove toxic chemicals. Water polluted with toxic chemicals is never safe for drinking, bathing, or washing. Do not store water in containers that have held pesticides or dangerous chemicals, even if they have been cleaned. See *A Community Guide to Environmental Health*, pages 59 to 63, for more about toxic chemicals and water.



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sand

sand

charcoal

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#### How to store clean water

Water can get germs in it when someone touches it with dirty hands or dips a dirty cup in it, when clean water is poured into a dirty cup or other vessel, and when dirt or dust gets into the water. To prevent water from becoming unsafe while stored or served:

- wash your hands before collecting and carrying water.
- clean the containers that you use to carry and store water, and all cups used for drinking.
- carry water in covered containers and keep water containers off the floor and away from animals.
- when you pour water out, do not touch the mouth of the container or the water with your hands. Or use a clean, long-handled dipper to take water out.

# Clean air

We all need clean air to breathe. But too much smoke in our houses from burning wood, dung, and other fuels for cooking or heating causes health problems, especially for children and women, who usually spend more time indoors. Breathing a lot of smoky air makes it easier for children to develop tuberculosis (TB) and pneumonia, diseases that kill many children with HIV.

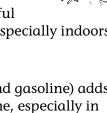
To lessen the smoke in your house, improve ventilation (how the air moves), make your stove less smokey, and use cleaner fuels.

Tobacco smoke from cigarettes, pipes, and cigars is also harmful for children (and others) when they are exposed to a lot of it, especially indoors.

### Urban air pollution

Air pollution caused by burning fossil fuels (coal, oil, diesel, and gasoline) adds toxic chemicals and tiny particles like soot to the air we breathe, especially in or near big cities. Breathing polluted air is hard on our lungs and leads to more colds, flu, bronchitis and other infections of the lungs, including pneumonia and TB. Breathing polluted air also makes us tired, gives us headaches, and makes breathing problems worse.

The World Health Organization says 3 million people die each year because of air pollution. In many countries, social movements to stop using fossil fuels are growing, both to protect our immediate health by reducing pollution and to protect long-term health by stopping climate change.





## Sanitation, cleanliness, and toilets

#### How Ravi became ill

Ravi lives with his mother and father in a crowded area of a city in India. He is 3. It is not easy to keep clean in the city. There are few latrines, and people often use the open trenches that run through the streets between the houses.



 One day, heavy rains flooded the open sewers and dirty water spread everywhere. A dog walked through the streets and sniffed things, looking for food scraps. The dog got feces on its feet and nose.



2. The dog went into Ravi's house and Ravi played with him. He patted the dog, getting dirt and feces on his hands, and found an old shoe to throw so the dog could chase it. The dog ran in and out of the house a few times until Ravi's mother chased him off.



3. Ravi cried, and his mother squatted down to comfort him. Ravi held onto his mother's sari, and the dirt and feces on his hands got on her sari.



 The busy mother prepared food for the family and used her soiled skirt — which did not look dirty — to handle the hot food.



5. The family ate the food, and soon everyone had diarrhea. Ravi became very ill.

Making sure waste and feces are not left in the open is very important for the health of the entire community. Feces and urine have germs and worm eggs that can get into our water and food. This makes all people ill, but these illnesses are more serious for children and people with HIV. Diseases caused by these germs include diarrhea, cholera, worms, schistosomiasis, and bladder infections. For how to treat many of these diseases, see Chapter 12.

Keeping the germs in human and animal waste away from people is called sanitation. It helps us stay healthy when we can keep our bodies clean, especially our hands.

Diarrhea is an annoying problem for anyone, but it is worse for small children. Diarrhea in young children makes them weak, less nourished, and more easily ill with other illnesses. Diarrhea was even worse for Ravi in the story because he has HIV. The weakness from having diarrhea makes him less able to fight HIV, and his medicines do not work as well.

The family's illness could have been prevented if:

- the community had not had open sewers.
- the dog had not been allowed to come inside the house.
- someone had helped Ravi wash his hands.
- Ravi had not wiped his hands on his mother's skirt.
- Ravi's mother had clean cloths to handle food with while cooking.

Cleanliness and sanitation are important ways to keep communities healthy. Washing children's hands often is one of the most important ways to help them avoid illness. By working together to provide children and families with safe toilets and ways to wash, you can prevent many illnesses.



Small ones are a lot of work to keep clean. As soon as you wash them, they get dirty again!

## Wash children's hands often

When babies are between 6 and 12 months old, they begin to put everything in their mouths. This is one way they learn about the world. Try to keep your baby's hands clean by wiping them often. And give your baby clean things to hold and play with.

When children are small you must still wash their hands for them. As they get older, teach children to wash their hands often, especially after using the toilet and before eating or touching food.



Show them how to use soap every time they wash their hands. If you do not have soap, show them how to use sand or ashes. When possible, use clean water to wash hands. See page 162 to learn how to treat water with bleach, boiling, or the sun.

Rub your hands together, Ramona, to get the dirt off. After you use the soap, rinse your hands. I have some clean water here for the last rinse.

### When to wash hands

- before preparing food
- before eating or touching food
- after using the toilet
- after cleaning a child's bottom or handling a nappy (diaper)
- after handling chemicals of any kind

Teach children how to wash their hands.

Have them rinse their hands with clean, running water, like from a tap or pitcher. If you use the same bowl to wash and rinse hands, you and your children will still have some germs on your hands after rinsing.

Also, try to use clean water for bathing children who have HIV. If you cannot use clean water, try not to let any water get into the child's mouth.



### Avoid germs and worm eggs in food

Many illnesses such as diarrhea, vomiting, and fever are caused by germs. These germs are too small to see with our eyes alone. They can only be seen with a microscope. But germs are all around us. You might know to avoid something like rotten food or feces, even though you cannot see the germs in them. But germs can also be on things that look clean and safe.



A child who is healthy and well fed fights off many illnesses. But weaker or poorly nourished children cannot fight germs or worms well, especially small children with HIV. To protect children from these illnesses:

#### Keep flies away from food

Flies that land on your food can leave eggs or germs that cause diarrhea illnesses. See pages 214 to 223 for how to treat these illnesses.



Cover food with lids, cloth, or screens to keep flies off.

#### Keep animals away from food

All animals carry germs. Keep animals out of the house, and away from food and the areas where you prepare and cook food. To keep food away from animals, store it sealed in something they cannot chew through.

#### Cook foods well

Raw meats, fish, shellfish, eggs, and milk often contain dangerous germs. These germs can harm anyone, but they are worse for people with HIV. To prevent illness, cook foods fully, so there are no raw parts inside. This kills germs and makes food safe to eat. Wash your hands with clean water before and after handling foods and before eating. See pages 214 to 223 for how to treat diarrhea illnesses from uncooked foods.



#### Wash and peel vegetables and fruit if eating them raw

Fresh fruits and vegetables may have germs or pesticides on their skins. Peel fruits and vegetables before eating them or wash them in water with a little bleach in it.

Juices and unbottled drinks can also carry germs. It is better to make these yourself from foods and water that you know are clean, rather than buy them at markets or roadside stands.



Washing fruits and vegetables with 1 spoon of bleach in a basin of water will kill any germs on them.

And always wash children's hands before they eat, and wash your own hands before you touch or prepare food.

#### Avoid spoiled foods

Do not eat food that looks or smells bad, or comes from a can that is swollen or squirts when you open it. Before eating leftover cooked foods, heat them again so they get very hot — hot enough to kill germs.



## Toilets

Feces and urine that are left in the open can spread germs. These germs are especially dangerous for small children and anyone with HIV. Toilets and latrines keep feces away from our water and food, and from the animals, flies, and our own feet that spread germs from feces.

There are toilets to meet the needs of every setting and community. For how to build different kinds of toilets, see *A Community Guide to Environmental Health,* Chapter 7.



Until a child is big enough to use a toilet, put the child's feces in a toilet yourself. Show the child where feces go — this prepares him for using the toilet later. Make sure to wash a baby's bottom after he defecates. And wash your own hands after wiping the baby or handling feces.



You can keep a special toilet pot in the house for small children. Empty it into a latrine after the child uses it.

#### Learning to use toilets

Children need toilets they can use and feel safe using. For example, sometimes children are scared of pit toilets because of the large, dark hole. If children can help build a toilet, they may be less afraid.

Teaching a child to use a toilet happens over many months. Every child is different, but most children are ready to start learning between 18 and 24 months. Here are some signs that show your child may be ready:

- Children point to wet or soiled clothes and ask to be changed.
- Children stay dry for longer amounts of time, or overnight.
- Children have words for using the toilet.
- Children stand and sit well on their own.
- Children pull their pants up and down without help.



In the beginning, you will need to clean the child yourself. Then you can help your child clean herself with paper or water. Girls should be taught to wipe themselves from front to back. This will keep germs from being wiped into the vagina and urinary tract where they can cause infections.

It can take as long as 2 years or more for children to learn to use the toilet by themselves. Be patient. It is normal for children to have accidents even after they have learned to use the toilets. Even when children are 4, 5, or 6 years old, they may occasionally have accidents, especially at night. That is normal. Keep encouraging your child.

Children who have lost their parents or moved to a new household may have more accidents than other children their age. Because this means more work, it is understandable to feel upset when this happens. Try not to treat the child angrily.



## Get rid of trash

Open piles of trash breed disease. Trash attracts and holds germs, along with rats, flies, cockroaches, and other insects, which carry disease into homes.

To make trash easier to handle, separate it:



Wet waste can become compost.



Sort dry waste into things you can reuse or recycle, as well as trash.

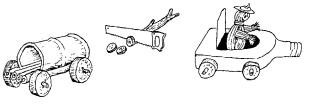




#### Why throw it away? Make a toy instead!



• With rice bags you can teach children letters and numbers.



• With cans or bottles you can make toy cars or boats — cover anything sharp with strong tape.

• Children love to get into and out of boxes, or put small things into them, or into other containers.







Managing trash is usually easier if the community takes responsibility for it together and does not leave it all up to each household.

To get rid of trash you cannot reuse or recycle, it is safer and better to bury it than to leave it in an open pile. Make sure your trash pit is deep enough to keep animals and bugs away.

Only burn trash as a last resort. Do not burn plastic. Plastic fumes can be toxic.

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## **Prevent illness and treat illnesses quickly**

All children get ill sometimes. They may have a slight cold, a fever, or some diarrhea. If children are generally healthy and well fed, they often get better on their own, with rest and healthy foods and drinks.

However, if a child is a newborn, or is not strong and well fed, or if she has HIV, she will not be able to fight off illness as well. Some illnesses, such as pneumonia, malaria, and tuberculosis, are serious in any young child, and must be treated as quickly as possible.

Young children with HIV need care sooner when they are ill. This means you should treat even mild illnesses quickly.



See Chapter 12 for more information about these signs and what to do.

When a child has HIV, some signs of illness can become life-threatening very fast. Seek care as soon as possible for:	These common problems for children with HIV may also need care from a health worker:
<ul> <li>fevers that come and go, or temperatures over 37.5°C (99.5°F)</li> <li>frequent diarrhea, see page 214</li> <li>difficulty breathing or fast breathing, see page 224</li> <li>a cough that lasts more than a month, see page 227</li> <li>strange crying, stiff neck, or swollen soft spot on top of head, see page 232</li> </ul>	<ul> <li>infections that do not heal, such as pus from the cord, see page 229</li> <li>sores and cracks around the mouth, see page 235</li> <li>swollen glands under the child's jaw, see page 236</li> <li>white spots in the mouth (thrush), see page 238</li> <li>skin rashes, see page 240</li> <li>low weight, weakness, or not growing, see page 245</li> </ul>

Every parent should know their own HIV status and that of any children in the household. If you do not know your child's HIV status, and the child is not growing well or is often ill, consider whether he might have HIV, especially if a close relative of the child has HIV (a mother, father, brother, or sister). If the child does have HIV, putting him on treatment will help him be ill less often.

Any sickly or poorly growing child should be tested for HIV – see Chapter 8.

## How to prevent common illnesses

You can prevent many illnesses by feeding children enough nutritious food, washing their hands (and yours), and safely disposing of feces in toilets. Taking certain medicines and using bed nets also prevent infections that can be very dangerous for small children, especially children with HIV.

## Give ART medicines every day

In order for HIV medicines to work, they must be taken every day, usually at the same time each day. Missing just 3 pills in a month can cause the child's medicine to work much less well to fight HIV.

Giving your children their medication at the right times each day is very important for their health. As they get older, they can be more responsible for taking their medicine. See Chapter 11 for more about children and ART.

## Help small babies stay warm

Babies born to mothers with HIV are often born too early and weigh too little (under 2.5 kg). Small or early babies get cold easily, which can be dangerous. They need help to stay warm.

Do not bathe any newborn baby in the first 24 hours after birth, and avoid bathing a small or weak baby often. When washing or bathing a baby, do it in a very warm room with warm water, and dry the baby well right away. Quickly wrap the baby, cover her head, and hold her close to warm her.

The best source of heat for a small or weak baby is the mother or caregiver. Wrap a small or weak baby next to your skin as much as possible, day and night. Sleep with the baby close. Check the baby regularly to see if her hands and feet are warm. If they are cold, wrap the baby close, skinto-skin, to warm her.

When no skin-to-skin contact is possible, keep the baby clothed or covered as much as you can. Dress the baby with extra clothing, loosely wrap her in a soft dry cloth, and cover her with a blanket. Keep babies diapered (in nappies) and cover their heads and feet. Change any wet clothing quickly.





### Give cotrimoxazole to prevent illness

Cotrimoxazole, also called *Bactrim* or *Septrin* among other brand names, is a very low-cost antibiotic that prevents pneumonia, malaria, diarrhea, and other infections in people with HIV, both children and adults. Cotrimoxazole can be a big help in keeping children with HIV healthy.

However, any child with HIV also needs ART to stay healthy and should start taking ART as soon as possible. See Chapter 11.

#### Who should be given cotrimoxazole?

- Any baby under age 2 who has a positive HIV antibody test, or whose mother has HIV. (These both mean the baby might have HIV.)
- Any child 2 years or older with a positive HIV test.
- Any untested child who might have HIV, based on other illnesses he has. (See page 133.)

You can give a baby cotrimoxazole starting as soon as 4 to 6 weeks after birth. Keep giving the medicine until you are sure the baby is not HIV positive, and cannot still become HIV positive through breastfeeding. To be sure a breastfeeding baby does not have HIV, you must test him 6 weeks after he stops breastfeeding. See Chapter 8 to read about how to know if a child has HIV.

Children who are HIV positive should keep taking cotrimoxazole until at least age 5. To give cotrimoxazole to babies and children who do or may have HIV, find the right dose in this chart and give it to the child once each day:

<b>Cotrimoxazole:</b> A single-strength adult tablet of 480 mg contains 80 mg of trimethoprim and 400 mg of sulfamethoxazole		
Child's age	Using suspension (liquid)	Using single-strength adult tablet
6 weeks to 6 months	2.5 ml	△ 1/4 tablet mix with breast milk or other milk
6 months to 5 years	5 ml	
6 years to 14 years	10 ml	🖉 One tablet
Older than 14 years		ØØ 2 tablets

## Prevent malaria

Malaria is an infection of the blood spread by mosquitoes. It is a serious problem for anyone, and is most dangerous for pregnant women and children.

When children with HIV get malaria, they become more ill than other children and may quickly develop other serious illnesses. For how to recognize and treat malaria in a child, see page 231.

#### To prevent malaria

- Sleep under a bed net that, if possible, has been treated with insecticide. Caregivers and children should all sleep under bed nets. A healthy mother helps the whole family. And children learn by watching what adults do.
- Replace treated bed nets according to their instructions. They last different amounts of time.
- Check nets often for holes and repair them.
- Cover windows and doors with screens or cloths.
- If you have a fan, use it at night while sleeping or sitting around the house.
- Cover your skin when you go outdoors after the sun goes down.
- Treat anyone with malaria quickly. Signs may include fever, chills, headache, vomiting, and diarrhea. If you suspect malaria, go to a clinic to treat it as quickly as possible with the right medicines.
- Spray insecticides inside where mosquitoes rest on walls, in corners, on the undersides of tables, and in closets. Do not spray insecticides on people, animals, or near water sources.

#### Community projects to prevent malaria

- Cover or drain standing water, which is where mosquitos breed. Get rid of old tires, cover empty barrels, and create drainage channels for water.
- Plant trees to give homes to birds that eat mosquitoes.
- Breed fish that eat mosquito eggs in ponds and lakes, such as guppies, gambusia, koi, or tilapia.
- Organize community clean-up efforts to keep mosquitos from breeding, getting in the house, and biting.



Tightly cover water containers.

## Prevent tuberculosis (TB)

Tuberculosis, or TB, is a dangerous disease that spreads easily, usually to the lungs, often causing a lasting cough. TB can also spread to other parts of the body, which happens more often in people with HIV than in people without HIV. TB can spread very easily between an adult who has it and a child living in the same house.

When someone has TB and HIV infection together, illness develops much faster than it does when he has only TB or only HIV. TB is the most common cause of death for people with HIV.

Children can get TB at any age, but it is most common in children between ages 1 and 4 years. The signs of TB can be difficult to see in children. If someone in a household has TB, any children in that household should be tested for TB, especially if they have HIV.

Signs in adults include a long-lasting cough (more than 3 weeks). Other signs are fever, sweating at night, and weight loss. In children, the only signs of TB may be steady weight loss or not growing well.

See pages 227 to 228 for more information about TB and how to treat it.

#### To prevent TB in children:

- Give children lots of nutritious food. Children who are well fed do not get sick as easily from TB. See pages 152 to 157.
- Treat pregnant women, other caregivers, and any household members who have TB or HIV. Make sure people take the full treatment for TB.
- Use isoniazid, a medicine that can prevent TB. Any child under 5 years old who is living in a household where someone has TB should be given isoniazid. Children over 5 who have HIV should also take isoniazid. See page 228 for more about this medicine.
- Keep fresh air flowing through your house.
- People who are coughing or have untreated TB can pass it to children. After they have been on treatment for 2 to 4 weeks, it is safe for them to be around and sleep in the same room as children.
- Encourage everyone to cover their coughs. Cough into your elbow, not your hand, so you do not pass germs by hand later.



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- If possible, stay away from crowded or enclosed areas. TB spreads most easily when people are crowded close together.
- Wash your hands often, especially after you cough.
- Do not spit indoors. Spit into a cup. If you spit on the ground outside, cover it with dirt.

Treat anyone who has signs of TB immediately. Treatment for TB takes several months, long after you feel better. But if you stop taking the medicine, the TB will come back, and it will be more difficult and costly to treat. I know you feel well. But you still have TB inside you. You must finish your treatment if you want to keep feeling well.



### Prevent worms

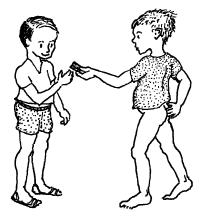
Seeing worms in a child's stool is common, and especially common in children with HIV. A child can also have worms without you ever seeing them. Worms can also sometimes cause severe rash and skin reactions. Children with worms may feel hungry more often.

Having worms is more serious when a child has HIV, because worms eat part of the child's food and children with HIV already need to eat more. Worms may irritate the walls of the child's stomach and intestines, increasing the chance of HIV infection if the child is still breastfeeding. Worm infections also overwork the immune system, which can make a child's HIV infection worse.

Give children a regular dose of anti-worm medications every 6 months to prevent worm infections. The same medication will treat several types of common worm infections including roundworm, pinworm, and hookworm. Tapeworm needs a different medicine. See page 248 for medicines and doses.

Most worm infections are spread where it is difficult to use latrines, wash hands, purify water, or stay clean. These problems also cause food to become contaminated with worm eggs from an infected person's feces.

Hookworm spreads through bare feet. Children should wear shoes to prevent contact with worms. Keep the toilet area clean, and make sure no food spills or scraps are left on the ground.



Dirty hands sharing food can spread worms.

## Immunizations

Immunizations (vaccines) protect children from serious diseases such as polio, measles, tetanus, and hepatitis. They must be given correctly and at the right times. It used to be thought that children with HIV should not get immunizations because their immune systems are weak. But exactly the opposite is true: immunizations are especially important for children with HIV, because the medicines help them fight or avoid infections. Boys and girls both need immunizations.

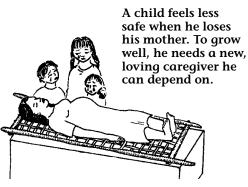


Some immunizations are "live" forms and may be less safe for a child with HIV. Make sure the health worker who gives an immunization knows your child is HIV positive or was born to an HIV-positive mother. Every country has guidelines for immunizing children with HIV.

# Keep your child's spirit strong

Good health is not just in our bodies. It is in our minds and spirits. Feelings such as being happy, afraid, sad, hopeful, proud, angry, or ashamed affect our health, making it easier or harder for our bodies to be healthy.

Babies and small children, not just older children and adults, have feelings that help or harm their health. It may seem like babies cannot feel something like worry, because they are too young to understand that idea yet. But feelings can affect us even when we are too young to know what the feeling is. Feelings of fear and insecurity force the body to work harder, make it less able to fight illness, and leave it with less energy and ability to grow and develop.





Children's spirits are strongest when they feel loved, safe, accepted, and able to explore and learn as they grow. Affection, guidance, and support with problems are all ways caregivers can help a child have a strong spirit.

Most ways to support a strong spirit in young children will also help older children and even adults be healthier. For more on supporting children emotionally, see Chapters 3, 4, 5, and 6. For ways to have a stronger spirit as a caregiver, see pages 17 to 19.

#### A sense of belonging

A sense of belonging means children know they have people who like them, care about them, and will help them with difficulties and hurts. When children feel they have family and friends they can depend on, they feel secure and able to grow and learn. You can help a child who is insecure, withdrawn, afraid, or sad because of HIV by reaching out to her and showing that you care for her.

Help children with HIV lead as normal a life as possible. They can play with other children and go to daycare or school. Give them the same responsibilities and privileges as other children their age. Treat a child you bring into your family as fairly and kindly as you do your other children.



#### Play

Caregivers can help children with HIV live happier and healthier lives by making sure they have ways to play and have fun.

Play is how children learn and develop. The skills they develop through play give them pleasure and confidence — these are important for a strong spirit. Play is how children learn to communicate and how friendships develop. Play is also one way children learn their culture, through games, songs, dances and art. In all these ways, play helps children feel a sense of belonging.



Give your baby small things she can hold or make noise with.



Allow children to run around, climb, and play football and other games. Exercise helps keep them healthy.

HIV sometimes makes it more difficult for children to play. Some children with HIV are sick more often, tire quickly, and spend more time in bed, or at clinics and hospitals.

Sometimes people wrongly fear HIV infection can spread among children and try to keep children with HIV away from others. This is called stigma, and can exclude children with HIV from play activities, celebrations, community gatherings, or school. You may need to teach other parents that children with HIV cannot easily spread HIV infection.



Community-based child care, games, and playgrounds can help children play together and develop well. Playgrounds that welcome all children also fight stigma, and they can offer chances to educate families. For more on challenging stigma, see pages 297 to 300.

#### Routines

Children (and many adults) like knowing that some things stay the same and happen the same way each day. A routine means that a child has a regular time each day when he eats, does chores, takes medicine, washes, or goes to sleep. When these activities happen each day at about the same time, it helps him feel safe and secure. Babies benefit greatly from routines — eating, sleeping, and going out at similar times each day. Also, when a baby has one main caregiver, this is a kind of routine.

Illness in the family often brings worry and uncertainty about what will happen. Routines can be especially helpful for children in these situations.

When possible, prepare a child for a change in routine. Talk to your child ahead of time about how things will happen differently. Often, this will help the child have less trouble when changes happen.

Tomorrow is a big day! We will wake up, wash and dress, have our tea, and take our medicine as always. But Uncle is coming, and we will make a dinner to welcome him.

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#### Protection

Children need help when they are mistreated. This includes serious mistreatment, such as physical or sexual abuse, as well as milder but still harmful mistreatment, such as not being fed as much as other children in the family, or being kept separate needlessly, or being ignored or treated meanly.



Becoming involved with a family to protect a child is not easy. But young children cannot protect themselves — they need the help of others when they are being harmed. See Chapters 14 and 15 for ideas about how to work with families, Chapter 14 for how to protect a child from sexual abuse, and page 17 for ways to support caregivers to have more patience, energy, and understanding.

#### **Role models**

Good role models help children develop a hopeful attitude and healthy habits. Knowing older children and adults living well with HIV gives children hope for the future. And knowing people who are fighting for the rights of people with HIV gives us all hope for the future, including children.

#### Children learning and playing together support each other

In Rwanda, young people raising their younger brothers and sisters after their parents died formed associations to help each other, linked by a group called CHABHA. Each week, children and their older brothers and sisters together, to play

games, sing, dance, eat together, and take part in discussions and skits. All dealing with the same problems because of HIV, they look forward each week to the break from their difficulties, to have fun and support each other. Many association leaders are now older children who grew up in these groups. See Resources: Where to get more information (page 309) to learn more about CHABHA.

