

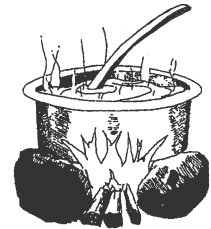
# How to prevent CHOLERA

Cholera can be prevented through careful sanitation, careful use and treatment of water before drinking or cooking, and careful handling of food.

## SANITATION



- Dispose of dead bodies far from water sources. Always wash carefully after handling.
- Build emergency sanitation facilities at least 30 meters from any water source. Ensure that people can wash carefully after using the toilet.
- **Always** wash hands after using the toilet.
- **Always** wash hands before cooking.



## WATER

- Do not drink untreated water.
- Treat water using at least 2 methods:



*Filtering through fabric, sand or other material **and** boiling*

*Filtering through fabric, sand or other material **and** adding lime or lemon*

*Filtering through fabric, sand or other material **and** adding chlorine*

- Keep water containers clean and do not put hands in drinking water.

## FOOD

- Cook food thoroughly and eat it while it is hot. Fish and shellfish are a major cause of cholera: only eat them if they are well-cooked.
- Do not mix cooked foods with raw foods like salads or relishes.
- Exclude infected persons from handling food.
- Wash vegetables and fruit in treated water before use, or peel them if there is no water.
- Discourage the habit of several people eating together from a communal food container.

## Preparing an Emergency Pit Latrine

In an emergency, while a more permanent latrine is being built, a simple pit can be dug as a temporary solution for the disposal of human excreta. It should measure 0.3 x 0.3 meter, have a depth of 0.5 meters, and be at least 30 meters from a well or other source of drinking water. Where possible, the pit should be at least 6 meters from the nearest house.



It should not be located uphill from the water source or dug in marshy soil. The bottom of the pit should never penetrate the groundwater table. After each use, a layer of soil should be laid down in the pit. In an area affected by cholera, the pit should also be coated each day with a layer of unslaked lime. For more information about other latrine designs, please see *Sanitation and Cleanliness for a Healthy Environment*.



For more information on this and similar subjects, go to [www.hesperian.org](http://www.hesperian.org)

# How to identify **CHOLERA**

(signs and symptoms)

Cholera is a severe form of diarrhea caused by a bacteria in water. Cholera spreads very quickly in emergency condition and can lead to many deaths. The symptoms of cholera are:

**Diarrhea “like rice water” in very large quantities**

**Vomiting**

**Leg cramps**

**Weakness**

Diarrhea and vomiting can lead very quickly to severe dehydration and shock. Without treatment, death can occur within hours. To help everyone in the community identify and prevent cholera, everyone should participate in the following activities:

**Water purification**

**Sanitation**

**Safe food preparation**

**How to make oral rehydration formula**

To prevent cholera, the free flow of information is essential to prevent panic spreading through the community. Only through knowing what cholera is and how to prevent it will everyone be safe.



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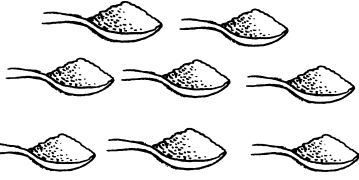

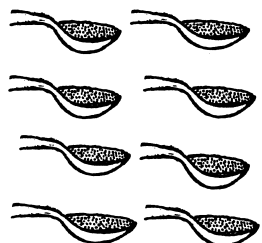
# How to treat **CHOLERA**

The most important treatment for cholera is **oral rehydration**. Except in severe cases, antibiotics will not help at all. When a person has watery diarrhea or diarrhea and vomiting, do not wait for signs of dehydration. Act quickly.

**Give lots of liquids to drink** such as a thin cereal porridge or gruel, soup, water or rehydration drink.

**Keep giving food.** As soon as the sick child (or adult) can eat, give frequent feedings of foods he likes. To babies, keep giving breast milk often — and before other drinks.

**Rehydration drink** helps to prevent or treat dehydration. It does not cure cholera or diarrhea, but may give enough time for the illness to go away by itself.

Rehydration drink	
<p>Below are two ways of making rehydration drink. If you can, add half a cup of fruit juice, coconut water, or mashed ripe banana to either drink. These contain potassium, a mineral which helps a sick person accept more food and drink.</p> <p>Give the child sips of this drink every 5 minutes, day and night, until he begins to urinate normally. A large person needs 3 or more liters a day. A small child usually needs at least 1 liter a day, or 1 glass for each watery stool. Keep giving the drink often, and in small sips. Even if the person vomits, not all of the drink will be vomited.</p>	
<p><b>Made with powdered cereal and salt.</b> (Powdered rice is best. But you can use finely ground maize, wheat flour, sorghum, or cooked and mashed potatoes.)</p> <p>In 1 liter of clean WATER put half of a level teaspoon of SALT,</p>  <p>and 8 heaping teaspoons of powdered CEREAL.</p>  <p><b>Boil for 5 to 7 minutes</b> to form a liquid gruel or watery porridge. Cool the drink quickly and begin to give it to the sick person.</p> <p><b>CAUTION:</b> Taste the drink each time before you give it to make sure that it has not spoiled. Cereal drinks can spoil within a few hours in hot weather.</p>	<p><b>Made with sugar and salt.</b> (You can use raw, brown sugar or molasses instead of white sugar.)</p> <p>In 1 liter of clean WATER put half of a level teaspoon of SALT,</p>  <p>and 8 level teaspoons of SUGAR. Mix well.</p>  <p><b>CAUTION:</b> Before adding the sugar, taste the drink and be sure it is less salty than tears.</p>



# How to make water safe for drinking and cooking

Surface water and water from leaking pipes and open cisterns and wells may be contaminated with cholera and other germs. **This water should be carefully treated before drinking!**

When using surface water or other water that is likely contaminated with germs as a drinking water supply there are different ways it can be treated. The quickest ways are boiling, bleaching, and adding lime or lemon. **No matter how it is treated it should be settled and filtered first, or the treatment may not work.**



## 1. Settle and filter the water.

- Let water settle until solids have settled out and water is more-or-less clear.
- Pour water through a filter made of clean fabric or a sand and charcoal filter.

**To use a fabric filter:** Fold clean sari cloth 4 times and stretch or tie it over the mouth of a clean water jar. Pour water slowly into the jar through the cloth. After using the cloth, wash it and leave it in the sun to dry, or disinfect the cloth with bleach to kill germs.

## 2. Boil or add bleach. If you have no bleach, use lemon or lime.






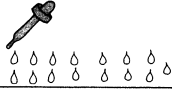




### Boiling

- Bring water to a rapid boil for at least 1 minute.
- Pour water into a clean container to cool.



### Use of bleach

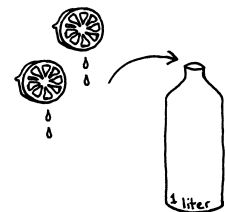
- For small amounts, add 1 drop of household bleach (10% bleaching solution) per liter of drinking water, to kill all germs.
- For larger amounts, add 1 teaspoonful (5 ml, or one capful if bottle has a screw cap) of household bleach to 20-25 liters of water.
- Thoroughly mix solution with the water and allow to stand for at least 2 hours (preferably overnight) before use.
- Store water in a clean container.

For 1 liter			1 drop
For 1 gallon			3 drops
For 5 gallons			15 drops
For a large sink			3 bottle caps full
For a 200 liter barrel			4 bottle caps full

### Use of lime or lemon

*(This method will not kill all germs, but is safer than no treatment at all and can prevent many cases of cholera)*

- Add the juice of 1 lime or lemon per liter of drinking water, to kill cholera germs.
- Pour water into a clean container.



## 3. Keep water containers clean.

- Make sure the water storage container stays clean! Do not put dirty containers, hands or anything else in the water container. Pour it off into clean cups for use.



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