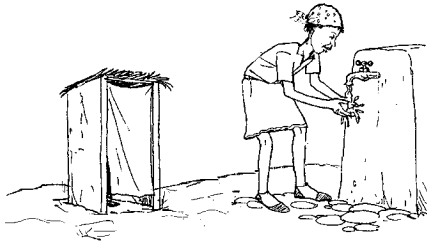


# How to prevent **CHOLERA**

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

## SANITATION

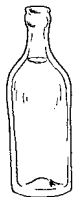


- Build emergency sanitation facilities at least 30 meters from any water source. Ensure that people can wash carefully after using the toilet.
- **Always** wash hands after using the toilet.
- **Always** wash hands before preparing food.
- Cholera germs can live in body fluids like diarrhea and vomit. When caring for sick people, wear gloves or put plastic bags over your hands and wash yourself often.



## WATER

- Do not drink untreated water.
- Always treat water with at least 2 methods:



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

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

*Filtering through fabric, sand or other material **and** using sunlight (SODIS)*

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

- 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 such as salads or relishes.
- Do not allow sick people to prepare or handle food.
- Wash vegetables and fruit in treated water before use. Peel them if there is no water.
- Discourage people from eating out of a shared bowl or food container, so they don't share germs.

## Preparing an Emergency Trench Latrine

In an emergency, while a more permanent latrine is being built, a simple trench can be dug as a temporary solution for the disposal of human waste. It should measure 0.3 meter across—so users can squat with a leg on each side—have a depth of 0.5 meters, and can be as long as necessary. In general, 1 meter of trench can serve 4 users. Dig the trench at least 30 meters from a well or other source of drinking water, and 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 trench should never reach the groundwater. After each use, a covering of soil should be put over the waste in the trench. **In an area affected by cholera**, a layer of lime should also be put in the trench every day. For more information about latrine designs, please see “Sanitation and Cleanliness for a Healthy Environment.”



**Death and Burial:** Bodies should be buried at least 30 meters from water sources. If you are washing a body for burial, don't let your grief make you forget to wash yourself well.

# How to identify **CHOLERA**

(signs and symptoms)

Cholera is a severe form of diarrhea caused by a bacteria in water. Cholera can spread very quickly in emergencies and can lead to many deaths. Signs of cholera are:

- **Diarrhea “like rice water” in large amounts**
- **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 the community identify and prevent cholera, everyone should learn how to:

- **Purify water**
- **Practice healthy sanitation**
- **Prepare food safely**
- **Make oral rehydration drink**

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.

# 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.

## How to make rehydration drink

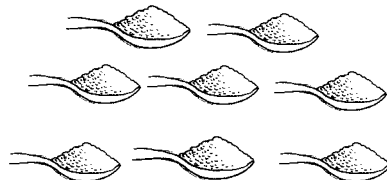
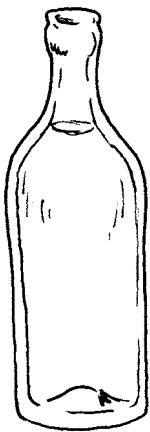
Below are 2 ways to make rehydration drink. If you can, add half a cup of fruit juice, coconut water, or mashed ripe banana to either drink. These contain potassium, a mineral that helps a sick person accept more food and drink.

Give a 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.

### Made with powdered cereal and salt.

Powdered rice is best. But you can use finely ground maize, wheat flour, sorghum, or cooked and mashed potatoes.

In 1 liter of clean WATER put  $\frac{1}{2}$  of a level teaspoon of SALT, and 8 heaping teaspoons of powdered CEREAL.



**Boil for 5 to 7 minutes** to form a liquid gruel or watery porridge. Cool the drink quickly and begin to give it to the sick person.

**CAUTION!** 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.

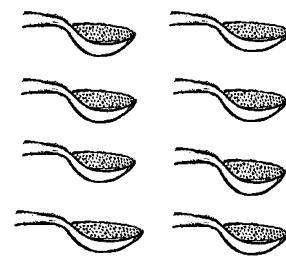
### Made with sugar and salt.

You can use raw, brown or white sugar, or molasses.

In 1 liter of clean WATER put  $\frac{1}{2}$  of a level teaspoon of SALT, and 8 level teaspoons of SUGAR.



Mix well.



**CAUTION!** Before adding the sugar, taste the drink to be sure it is less salty than tears.

# How to make water safe for drinking and cooking

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

When drinking water comes from surface water or other water that is likely contaminated with germs, there are different ways it can be disinfected: boiling, bleaching, adding lime or lemon, and using sunlight.

**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 sit 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 a clean 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.

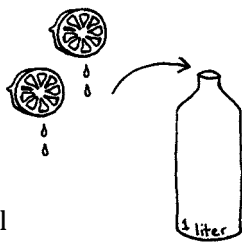
## 2. Disinfect the water

### Use 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 for 1 liter of drinking water, to kill cholera germs.

Pour water into a clean container.






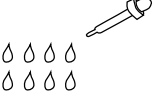




### Use bleach

For small amounts (1 quart or 1 liter), add 2 drops of household bleach (5% chlorine) to kill all germs.

For larger amounts (5 gallons or 20 liters), add ½ teaspoon of household bleach.

Mix well with the water and allow to stand for at least 2 hours (overnight is best) before use.

Store treated water in a clean container.

	WATER	BLEACH
For 1 liter or 1 quart		 2 drops
For 1 gallon or 4 liters		 8 drops
For 5 gallons or 20 liter		 ½ teaspoon
For a 50 gallon or 200 liter barrel		 5 teaspoons

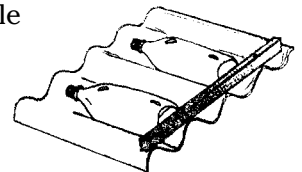
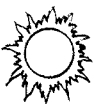
### Use sunlight

Sunlight (solar disinfection or SODIS) works best in countries close to the equator, where the sun is strong.

Fill a clean plastic bottle, or a plastic bag, half full with water, then shake it for 20 seconds.

This adds air bubbles which help disinfect the water faster. Then fill the bottle to the top. Place the bottle where it is hot and sunny, and where people and animals will not disturb it, such as the roof of a house.

Leave the bottle for at least 6 hours in full sun, or for 2 days if the weather is cloudy.



### Boiling

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

## 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 into clean cups for use.