

## PREVENTING WATERBORNE DISEASE

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Safe drinking water is something most Americans take for granted. But in other parts of the world, polluted water contributes to untold numbers of fatalities, including the death of some 15 million children a year, according to a recent report in *The New York Times*.

There may be a simple solution to this monumental problem, however: using unlined brass or copper containers, instead of plastic or clay vessels, to store water. English microbiologist Rob Reed recently set out to learn whether folk traditions of using brass vessels to ward off sickness really held water.

While researching sunlight's antibacterial effects on water, Reed observed villagers in India storing water in brass vessels. When he asked them why they used brass, the villagers said it protected them against waterborne illnesses such as diarrhea and dysentery.

Back in England, Professor Reed tested their theory under laboratory conditions by introducing *E.coli* bacteria to water in brass pitchers. Within 48 hours, the amount of living bacteria in the water had been reduced to undetectable levels.

According to Reed, the copper and brass containers release into the water minute amounts of natural copper, which destroy the bacteria by interfering with their cell membranes and enzymes. Humans are not at risk because the amount of these particles in the water is far below our safety threshold, he said.

Reed's findings were recently published in *Nature* magazine. **Cu**



*Drinking water stored in copper and brass containers will destroy harmful bacteria within a 48-hour period, according to recent studies. This is important news for more than a billion people worldwide who lack access to safe drinking water.*