

You can participate for just a few dollars in a life saving project that brings Clean Water to those in need

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North Carolina State University Student Fundraiser

Help us get these life-saving devices into the hands of those who need clean water. Contact [Maggie Earnest](#) at Lifestraw09@yahoo.com

LifeStraw Project

At any given moment, about half of the world's poor are suffering from water-related diseases, of which over 6,000 - mainly children - die each day by consuming unsafe drinking water.

Today, 1.1 billion people are without access to safe drinking water, robbing hundreds of women and girls of dignity, energy and time.

Safe water interventions have vast potential to transform millions of lives. Steps to eradicate poverty, upgrade the environment, enhance child development, institute gender equality, and generally improve quality of life include the basic necessity of having pure drinking water.

Recognizing this fundamental need for safe drinking water, an instant water purification filter designed by the Danish Vestergaard Frandsen Group developed LifeStraw® for the billions of people who are still without access to this urgent basic human need.

Utilizing LifeStraw® offers relief from the waterborne diseases of major public concern, such as, typhoid, cholera, dysentery and diarrhea. As an inexpensive, lightweight, portable, personal water purification tool, LifeStraw® was designed to turn surface water into drinking water, thus providing access to safe drinking water.



What is a LifeStraw®

As a portable water filtration and purification device, each LifeStraw® measures 250mm long by 29mm in diameter and weighs just 95 grams. It can easily be worn

around the neck by the attached hanging rope. The 3-stage particle filtration system filters water molecules down to 15 microns and is capable of filtering around 700 liters – enough to provide a one year water requirement for most people. The LifeStraw®'s first filter, a pre-filter of PE filter textile with a mesh of 100 microns, is followed by a second textile filter in polyester with a mesh opening of just 15 microns.

How Does it Work?

First all large particles are filtered out, including clusters of bacteria. Then bacteria, viruses and parasites, such as, typhoid, salmonella, Escherichia coli, and cholera are killed as the water filters through a chamber of iodine impregnated beads. The filter currently does not work against Giardia lamblia, but the company is working on that. This second chamber has a void where the iodine having been washed off the beads can do its job. The last chamber consists of granulated activated carbon, which takes away the main part of the smell of the iodine, and takes away the parasites that have not been removed by the pre-filter or killed by the iodine. The largest parasites will be filtered by the pre-filter, the weakest will be killed by the iodine and the medium range will be killed by the activated carbon.

How to Use a LifeStraw®

Quite simply, remove the LifeStraw® from its protective packaging. Remove the lower cap with your finger nail then remove the small cover that covers the mouthpiece. Place the LifeStraw® in the unclean water and suck steadily on the mouthpiece. The first few times, when the water enters your mouth you should spit it out as this water will contain some black carbon particulate. It is not dangerous but it is better to spit it out anyway. Continue to suck steadily on the LifeStraw® until you have satisfied your thirst.

On completion simply blow back through the LifeStraw® to help cleanse it and remove some of the particulates that may have gathered on the first pre-filter.

NCSU FUNDRAISER

Participate in our efforts to raise funds to get these devices into the hands of those who need clean water. Contact Maggie Earnest at NCSU
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Links

LifeStraw® Website <http://www.lifestraw.com/en/high/maincont2.asp>

Watch the Video - India <http://www.youtube.com/watch?v=SzzCSATFiyM>

News Article: Saving Lives With a Straw
Invention Provides Clean Water to the Millions
Across the World Who Don't Have It

<http://abcnews.go.com/Technology/TenWays/story?id=2119326&page=1>

Saving Lives With a Straw: Invention Provides Clean Water to the Millions Across the World Who Don't Have It - by *JESSICA GOLDEN* May 11, 2006

Each morning Eunice Jakala wakes at dawn to travel several miles to the local well in Nairobi, Kenya, to fill her pail with potable water for her family.

At 65, that walk isn't getting any easier. Limping back and forth with a bad back and heavy bucket, she endures the hardship every day -- as do billions of others around the world in order to get clean water.

Jakala is one of the lucky ones. More than one-sixth of the global population doesn't have access to clean drinking water at all. More than 2 billion lack adequate sanitation. Since you started reading this article, one person has died as a result of a waterborne disease.

There's a promising new tool that has the potential to dramatically change the world's water supply problem. It's called LifeStraw, and it works just like a drinking straw.

"Users stick the plastic tube in the water and suck," said Mikkel Vestergaard Frandsen, CEO of LifeStraw.

As the water passes through the puro-tech disinfecting resin, bacteria are destroyed on contact through a combination of materials found in the straw. For the mere price of a frappuccino at Starbucks -- about \$3.50 -- millions of lives could be saved.

Voted as one of Time magazine's "2005: Best Inventions," LifeStraw filters out many of the microorganisms responsible for causing waterborne diseases like diarrhea, dysentery, typhoid and cholera. The straw lasts up to a year or after filtering 700 liters of water.

Vestergaard Frandsen believes that the death of more than 6,000 children a day from unsafe drinking water is preventable.

"We built LifeStraw with special emphasis on making it easy to use for the most complex situations on Earth," he said.

The straw is designed never to need maintenance and avoids the use of electricity or any power except for human sucking. Enclosed with each LifeStraw is an illustration on how to use it.

Currently, Vestergaard Frandsen's company is focusing its efforts on supplying the LifeStraw to those most in need. More than 60,000 LifeStraws were passed out after the earthquake in Pakistan, and the Finnish mission distributed them in the war-torn region of Northern Uganda. The product is still being perfected, but Vestergaard Frandsen says it is ready to start distribution in the next emergency.

Could LifeStraw have helped during Hurricane Katrina?

"Absolutely," Vestergaard Frandsen said. "We have developed the LifeStraw for the most complex situations on Earth. & That's what LifeStraw was developed for."

With the recent influx of celebrities involving themselves in international humanitarian campaigns, waterborne disease isn't something that's talked about enough, Vestergaard Frandsen said. "You don't find too many celebrities putting their face on a cause that could stop diarrhea."

He hopes his product will change all that.

Paul Hetherington of WaterAid, an international charity dedicated to helping people escape the stranglehold of poverty and disease caused by living without safe water and sanitation, calls the LifeStraw an "amazing idea," but he worries it's a short-term fix to a bigger problem.

"We believe that it's more practical to put the money into something more long term and more sustainable," Hetherington says.

He agrees, though, that during an emergency, these straws would indeed be lifesaving.

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