Straining

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| Source Protection | Safe Transportation | Sedimentation | Filtration | Disinfection | Safe Storage |

# What is it?

Straining involves pouring water through a clean piece of cloth. Typically, fine and tightly-woven cotton, such as a sari cloth, is used. The cloth is folded eight times into layers, which makes it more difficult for sand, silt, clay, and pathogens to pass through. A sari cloth folded eight times will allow water to pass through but will filter out particles larger than 20–30 µm.

# Performance

## Microbiological Effectiveness:

|  |  |
| --- | --- |
| Parameter | Effectiveness |
| Bacteria | Somewhat Effective\* |
| Viruses | Not Effective (<80%) |
| Protozoa | Somewhat Effective\*\* |
| Helminths | Very Effective (>99%)\*\* |

\*A study found this method very effective at filtering plankton to which cholera-causing bacteria were attached. Straining may not be as effective for other bacteria.
\*\*Assumption based on pathogen size. No independent tests.

## Other Parameters

Somewhat effective at removing turbidity. Does not remove colour or chemicals.

## Source Water Requirements

No specific limits.

## Capacity

Volume treated depends on container size. Treatment takes only a few minutes and can be repeated multiple times in one day (using a clean cloth each time).

## Lifespan

After many washings, threads of old cloths become soft and loose. This makes the cloth less effective at filtering particles. The cloth should be replaced if holes develop.

# Ease of Use & Acceptability

## Operation & Maintenance

Users fold a large, freshly cleaned cloth eight times. They securely tie the folded cloth over a clean container, and then pour water through the cloth into the container. The cloth should be washed in clean water between uses.

## Repair & Replacement

New cloth must be purchased occasionally.

## User Considerations & Preferences

Simple and easy to perform.

# Feasibility

## Availability

Requires buckets and finely woven cotton cloths. These supplies can be found in most communities.

## Cost

Varies; depends on local costs for buckets and cloth.

## Size & Weight

Small and easy to transport.

# More Information

Details and references: [www.hwts.info/products-technologies/98da1115/straining](https://www.hwts.info/products-technologies/98da1115/straining)