

Sawyer PointONE® Filter



Using technology taken from kidney dialysis, Sawyer® water filters use Hollow Fiber Membranes. Our filters are comprised of tiny “U” shaped micro tubes that allow water to enter into their core through tiny micro pores. The PointOne Filter pores are so small (0.1 micron absolute) that no bacteria, protozoa, or cysts like E.Coli, Cholera and Typhoid can get through. At 7 log (99.99999%) the filter attains the highest level of filtration available today and yet it has a very high flow rate due to the large amount of tubes. Each filter is certified for ABSOLUTE microns. That means there will be no pore size larger than 0.1 microns in the biological filter. Simply put, it is impossible for bacteria to pass through the 0.1 micron filter.

Sawyer made it as simple as it gets. No more digging wells if there is a water source, no constructing sand filters and no more purification chemicals. Families are able to construct and adapt their filter in literally minutes to locally found containers. The kit includes everything you need to attach the filter to any plastic bucket or container. (Bucket not included).

Sawyer PointONE® Water Filter is a high-volume point-of-use water purifier that provides safe drinking water for community, educational and institutional settings. It prevents waterborne disease such as diarrhea, typhoid, cholera, worms, and cryptosporidiosis.

- 1) Hollow fiber filtration technology converts contaminated water into safe drinking water
- 2) Removes 99.99999% of all bacteria and 99.9999% of all protozoa
- 3) Reduces turbidity (muddiness) by filtering particulate matter larger than 0.1 microns
- 4) Meets the standard for the “highly protective” category of household water treatment options by the World Health Organization and complies with US EPA guidelines for microbiological water purifiers
- 5) Can purify up to 400,000* liters of water, enough to serve a family for several years
- 6) Chemical-free
- 7) Made of foodgrade durable plastic
- 8) Doesn't require electrical power or batteries
- 9) Filtration rate: 1.0* liter per minute

IMPACT

Sawyer PointONE® Filter in Schools

- Many schools in developing countries don't have access to safe drinking water.
- Sawyer PointONE® Pail Water Filter is ideal as a safe drinking water component in school-based WASH programs.
- Can reduce school absenteeism by preventing children from getting waterborne disease.
- Children can be strong advocates of safe water and hygiene at home to their parents when they learn it at school.
- Availability of clean water can motivate parents to send their children to school.



Sawyer PointONE® Filter at Health Facilities

- Safe drinking water is vital in health facilities for:
 - Administering medicines
 - Hand washing facilities
 - Safe handling and removal of feces
 - Personal hygiene
- Millions of preventable infections occur every year within the health care environment because of inadequate attention to WASH.
- Patients with HIV/AIDS need water treatment that can prevent cryptosporidiosis, which has developed a resistance to chlorine.



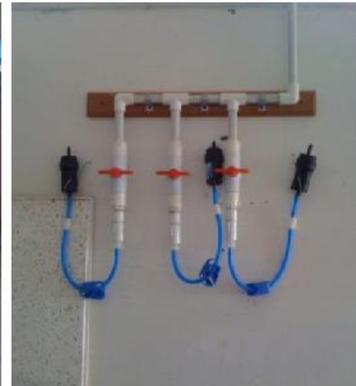
Sawyer PointONE® Filter in Workplaces

- Many workers don't have access to safe drinking water during work hours.
- Workers who have access to safe water can experience increased productivity by staying hydrated and remaining healthy.
- Workers with access to safe water can decrease their absences from work due to waterborne illnesses.



Sawyer PointONE® Filter in Community Dining Spaces

- Improves nutrition by preventing loss of vital nutrients due to diarrhea and water-related illness.
- Helps prevent stunted growth and malnutrition in children who are particularly vulnerable to waterborne illness.
- Helps improve the productivity of school children and workers by reducing absenteeism from sicknesses related to diarrhea and other waterborne diseases.
- Contributes to economic development of the community through increased productivity of workers and income saved from avoidance of clinic expenditures.



SETUP



**Bucket NOT included in the kit

KIT Includes:

- 1 – Hole Cutter (Drill Bit)
- 1 – Water Filter, adapter & 1 Foot Hose
- 1 – Backwash Syringe
- 1 – Filter Hanger
- 1 – Filter Cap
- 1 – Filter Cleaning Instructions sticker

- Obtain a minimum 20 liter clean bucket or plastic container
- Use the hole cutter to drill a hole 1.5 inches from the bottom of the bucket (you can do this by hand).
- Screw the connector, hose and filter onto the bucket.
- Fill the bucket with water from any source, lower the filter head below the water line, and let gravity do the rest.

HOW IT WORKS

1. Minimum 20 liters of untreated water is poured into the filter installed bucekt, also called the dirty water container.
2. If the water is too dirty use a cloth as strainer or pre-filter to remove coarse particles.
3. The ultrafiltration hollow-fiber membrane cartridge, located inside the black colure housing of the filter, then stops all turbidity particles and pathogens larger than 0.1 microns (including all bacteria, protozoan cysts ect.). Particles and microbes larger than 0.1 microns stay on the dirty side of the membrane and clean/filtered water passes through the membrane.
4. Filtered water can be collected in to any hygienic container.
5. The backwashing with the syringe or coupling is released pathogens and dust particles on the dirty side of the membrane are lifted by backpressure and then flushed out.



FEATURES AND SPECS

Protection

- Hollow fiber filtration technology converts contaminated water into safe drinking water
- The PointONE filter removes 99.99999% of all bacteria, such as salmonella, cholera and E.coli; removes 99.99999% of all protozoa, such as giardia and cryptosporidium
- Meets the standard for the “highly protective” category of household water treatment options by the World Health Organization and complies with US EPA guidelines for microbiological water purifiers

Capacity

- Filtration rate: Average flow rate is about 1.0* liter per minute

Lifetime

- Can purify up to 400,000* liters of water, enough to serve a for several years

Design Features

- Size: 4-inches by 2-inches.
- Chemical-free
- Removal Rate: Constant 0.1 micron that never varies.
- Ease of Set-up: Incredibly easy to use. The filtration System comes with simple cleaning and maintenance instructions that anyone can understand. Potable water in less than few minutes.
- Skill Level to Operate: Simple enough for a child to operate.
- Reliability: True barrier filtration will not fail regardless of water temperature or water content.
- Cleaning: Use included syringe to backwash the filter to maintain a high-flow rate. It takes less than 2 minutes.
- Made of durable plastic
- Doesn't require electrical power or batteries
- Filter Weight: 8 oz or 227 grams
- Made in USA.



**Based on a turbidity level of 4-5NTU, under laboratory conditions.*

Note: The filter cartridge is designed to give you safe water from any microbial contamination for millions of liters of purified drinking water subject to normal municipal water or potable water from wells, bore wells, lakes, streams and river (not with unnaturally high suspended matter, or high on TDS or dissolved salts or chemicals).

EVIDENCE

We invite you to download more information from below web links.

- 1) <https://sawyer.com/international/saving-lives>
- 2) <https://sawyer.com/technology/downloads>
- 3) https://sawyer.com/wp-content/uploads/2013/12/UNC-Handout_2015-10-211.pdf