WHAT HIKERS & CAMPERS NEED TO KNOW:

WATER FILTRATION / INSECT REPELLENT / FIRST AID
Are you sure your water is safe to drink?
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Even water that is crystal clear from a fresh mountain spring can be loaded with bacteria and protozoa that cause illness.

Sawyer’s 0.1 micron absolute filters house a cluster of micro-fibrous tubes which use similar technology found in medical dialysis. As water passes through the side walls of the tubes, harmful bacteria and protozoa are trapped on the outer walls so you can be confident your water is safe to drink.
**THE SAWYER ADVANTAGE**

1. **Absolute Microns** - We test to verify that no pores in our filters are bigger than the listed pore size, unlike other filters that list a nominal or average pore size. This is why we offer the highest level of filtration.

2. **Longer lasting** - Our filters are robust and can be cleaned over and over. No replacement cartridges needed.

3. **No air locking** - Our filters will self correct and not air lock.

<table>
<thead>
<tr>
<th>Common Disease</th>
<th>Micron Size</th>
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<tbody>
<tr>
<td><strong>Protozoa</strong></td>
<td></td>
</tr>
<tr>
<td>Giardia/Cryptosporidium</td>
<td>5-15 microns</td>
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<tr>
<td><strong>Bacteria</strong></td>
<td></td>
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<tr>
<td>E.Coli, Cholera (Vibrio cholerae), Salmonella</td>
<td>0.2-10 microns</td>
</tr>
<tr>
<td>Leptospirosis</td>
<td>0.05 microns*</td>
</tr>
<tr>
<td><strong>Viruses</strong></td>
<td></td>
</tr>
<tr>
<td>Hepatitis A, Polio Virus, Rotavirus</td>
<td>0.0004 to 0.1 microns**</td>
</tr>
</tbody>
</table>

*Though the strand size is 0.05 micron in size, this bacteria is shaped like a corkscrew, therefore the shape of the bacteria prohibits it from passing through our 0.1 micron pores.

**Viruses are not commonly transmitted in water, however Sawyer’s 0.02 micron purifier will filter 99.9999% of viruses. If you’re traveling to an area where there is a known hepatitis or polio outbreak consider using a purifier instead of a filter.
THE MINI

The Mini is our smallest, lightest and most versatile filter. This 0.1 micron absolute filter weighs a mere 2 ounces, is rated up to 100,000 gallons and can be used the following ways:

Squeeze          Straw          Inline          Bottles

(and drink directly as shown above)
A FILTER FOR EVERY ADVENTURE

No matter what you’re doing there’s a Sawyer filter to meet your needs. For groups or base camp use a bag to bag Gravity System. For emergencies build your own gravity system with a bucket. Fill and drink from our water treatment bottle instantly. Use our accessories (not shown) to filter directly from or into your hydration pack. Use our award winning Squeeze Filter for a faster flowing squeeze filter.

SQUEEZE FILTER  GRAVITY SYSTEMS  WATER TREATMENT BOTTLES  BUCKET FILTERS
FAQ’s

Can I filter salt water? - No, but that would be nice!

Can the filter freeze? - Brand new filters can be frozen. Once used avoid freezing a filter as it is unknown if freezing will damage the fibers. Try to keep the filter in a plastic bag in a pocket or in your sleeping bag if you’re in below freezing temperatures.

Does it filter taste or chemicals? - The Sawyer filter removes taste that comes from bacteria, dirt, and green matter but not from chemicals or heavy metals. Sawyer filters are not made with charcoal. While other portable filters have charcoal, they lack in the amount of media and adequate dwell time to be truly effective. Therefore, they only remove small amounts of heavy metals, pesticides, etc. (when used in real life applications). Try using better sources of water if possible.

For more FAQ’s please visit www.sawyer.com/faqs
HOW MOSQUITOES FIND YOU

Ever wonder why mosquitoes are more attracted to some people than others? Researchers have speculated that human skin produces 300 or more chemicals, and every person is different.

Some species of mosquitoes are more aggressive than others but all mosquitoes are attracted by carbon dioxide (exhaled breath), lactic acid, and many other human emissions. So, the mix your body is giving off may or may not be more attractive to a mosquito. There are many different types of insect repellents and by trial and error you can find the one that works best for you.

Permethrin treated clothing and fabric should be your first line of defense.
CLOTHING AND GEAR INSECT REPELLENT

Before lathering up with repellent you should always consider treating your clothing or gear with Permethrin first. Permethrin not only repels, it kills mosquitoes, ticks, chiggers, mites and over 55 other kinds of insects on contact, and is as effective as 100% DEET on ticks and mosquitoes.

WHAT IS IT?

Permethrin is the synthetic version of pyrethrum which is a natural insecticide that comes from the chrysanthemum flower. Sawyer permethrin is odorless and effective for 6 washings or 42 days of UV exposure, whichever comes first.
WHAT CAN I TREAT WITH PERMETHRIN?

**Backpacks** - Mosquitoes are hoppers. Think of little frogs with wings. Therefore the more surface area you can cover the better protection you will have.

**Tents** - Help keep bugs out of your tent and away from your campsite.

**Camp furniture**

**Hammocks**

**Mosquito netting**

**Luggage** - Spray out the inside of your luggage when you travel to avoid transporting critters back home.

**Bed Sheet** - Suspicious hotel mattress? Bring your own treated bed sheet for peace of mind. Many bed bugs are immune to permethrin but not all are so it is worth the effort to try.
TIPS FOR BEST RESULTS WITH PERMETHRIN

• Shake up the bottle really well and apply in a well ventilated area.
• Hand wash and air dry if possible to preserve the application. If using a washing machine wash on gentle wash and dry cycles.
• Storing garments in dark plastic bags between uses helps preserve the application.
• If it is too cold to effectively dry your treated clothing try placing them in a non-tumbling or pre-heated dryer 10 minutes after treatment.
• Do not expose cats to wet permethrin as it affects their central nervous system. This is not true with dogs, horses or cows. Cats can be around permethrin treated fabric after the application has dried.

FAQ’s

• Is there a permethrin treatment that I can throw in the washing machine? No, there never has been. You do not want to dump excess permethrin down the drain so you would not want to apply it in the washing machine.
• Will permethrin interfere with waterproofing? No, permethrin will not harm waterproofing or damage any finishes. It just has a harder time bonding to waterproof materials that are more tightly woven.

For more FAQ’s and instructional videos visit sawyer.com/faqs
TOPICAL REPELLENTS

For the best protection, after treating clothing and gear with Permethrin apply a topical repellent to exposed skin.

Repellents create a vapor barrier atop skin which masks or scrambles the signals of attraction that humans emit. They make it tougher for mosquitoes to locate their target.

TIPS AND TRICKS

• Bugs bite most between dawn and dusk. Be extra bug-vigilant then.
• Camp or take breaks in breezy areas. Mosquitoes have trouble tracking targets in windy conditions.
• When using sunscreen and insect repellent, apply sunscreen first and let dry before applying a repellent. Typically lotion repellents work better with sunscreens.
• Eat garlic- mosquitoes and unwanted friends will want to stay away from you!
## Types of Topical Repellents

<table>
<thead>
<tr>
<th>Product</th>
<th>Active Ingredient</th>
<th>Features</th>
<th>Recommended Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picaridin</td>
<td>Picaridin</td>
<td>20% Picaridin comes in a 12 hour spray or a 14 hour lotion - Gear safe and repels mosquitoes, ticks and flies</td>
<td>All occasions, especially when sand and biting flies are a nuisance.</td>
</tr>
<tr>
<td>Maxi DEET</td>
<td>DEET</td>
<td>Spray: 100% low odor DEET spray, lasts up to 10 hours against mosquitoes</td>
<td>Intense mosquitoes</td>
</tr>
<tr>
<td>Premium Sunblock with Insect Repellent</td>
<td>IR3535/SPF30</td>
<td>Spray: Repels, mosquitoes, flies and even works well on bees - Mild citrus scent, and SPF30 as a bonus</td>
<td>All around great repellent for any situation</td>
</tr>
<tr>
<td>Controlled Release (Family Formula)</td>
<td>DEET</td>
<td>Lotion: 20% DEET, odorless, reduces deet absorption by 67% per application - slowly time-releases the DEET for up to 11 hours</td>
<td>Great for the entire family, even kids</td>
</tr>
<tr>
<td>Ultra30™</td>
<td>DEET</td>
<td>Lotion: Patented 30% DEET liposome formula. Time-released deet for up to 11 hours. Very comfortable and odorless</td>
<td>International travel, multi-day excursions</td>
</tr>
</tbody>
</table>
PICARIDIN

The future of topical insect repellents

When flies are a problem as well as mosquitoes use Picaridin. Picaridin is more effective against flies than DEET. It is actually more effective on mosquitoes found in Central and South America. As a bonus, picaridin is gear safe. It will not ruin things like your fishing line, firearm finishes, lures, watches, sunglasses and some synthetic fabrics, which liquid DEET can harm.

Sawyer’s NEW Picaridin Lotion lasts up to 14 hours against flies, mosquitoes and ticks. This is now the optimum repellent option and is also available in a 12 hour spray.
MYTHS ABOUT DEET

DEET has a long documented use by humans without any credible scientific evidence that it is harmful to humans (despite what many internet “experts” may claim). Often when people experience negative affects when using DEET in liquid form, it is not the DEET itself that is causing the irritation but the alcohol the DEET is mixed with.

Alcohol is very rough on the skin. Unfortunately many people have the misconception that if they use a lower percentage DEET (like a 30% can of aerosol DEET). They are “safer” because they are exposing themselves to less of the chemical. Unfortunately that 30% DEET is mixed with alcohol and alcohol opens up the pores, irritates your skin and the effectiveness of the DEET diminishes quickly. This is why you constantly have to reapply multiple times throughout the day.

Dosage vs Concentration

When using a lower concentration of DEET like a 30%, you are still exposing yourself to pure 100% DEET molecules, just a smaller amount of them so the effectiveness diminishes quicker. Therefore, our recommendation is to bypass the alcohol altogether and skip right to 100% DEET. By using a smaller dose of a higher concentration of DEET you can apply the repellent less frequent and avoid loading your skin with irritating alcohol. At the end of the application you have the same amount of DEET molecules on your skin to repel bugs.
How it works

The bubble glides back and forth to absorb rubbing action, and prevents a blister.

Blist-O-Ban®

Forget treating the blister, prevent the blister. The Blist-O-Ban® makes moleskin donut hole treatment kits, gels and sprays obsolete.

Blist-O-Ban® Adhesive bandages are synthetic blisters you place over your hot spots to prevent further rubbing/irritation.

They are waterproof, breathable and can be used during multi-day trips.
The SAM SPLINT™
The original flexible, moldable field splint to immobilize almost any field wound.

- Made from flexible aluminum alloy, the SAM Splint is reusable and ultra light.
- Bend a flat SAM Splint into a C curve and it becomes super strong and supportive.
- Ideal for Wilderness EMTs and trip leaders.
- Multi uses: Make an emergency snow shovel or paddle, flame guard for stove and more.

A product by SAM MEDICAL
ChitoSAM Active™

ChitoSAM (pronounced kye-toe-sam) is the best product for treating wounds and lacerations:

• Stops bleeding fast
• Contains no clay - Easier to clean from wound
• Used on battlefields around the world
• Safe, all natural

ChitoSAM has a long and documented history of internal use in the body. Unlike certain clay alternatives it does not contain any non-degrading minerals or nano-particles which could potentially spread throughout the body and may be more difficult to clean from a wound site. ChitoSAM is easy to clean from the wound without causing unnecessary stress on the wound.

Available in a 4”x4” single use dressing or a 3” x 6 foot z-fold that can be used on larger wounds or cut to size for multiple wounds.