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Millbankbag waterfilters

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- Gear reviews and tests - Bivouac -



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Description :

An introduction on millbank bag water purification.

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Modern purification pumps and gravity filter has become quite common and popular. Which is pretty obvious since water sources has degraded in the last few decades. But these modern filters have drawbacks: there filter elements are usually made from fragile ceramic. They do not like to be exposed to shock or cold, as they might crack. Also the pumps, valves, O-rings, etc can fail. That's why a simple and reliable water purification system like the Millbank bag is still popular among some.

A millbank purification set is made up of a millbank bag and a form of chemical purification, usually iodine. Most also includes neutralising powder to neutralise the taste of iodine. A downside of the millbank is that it can not and will not remove chemical contamination, because it lacks a carbon element.

The principle is simple, chemicals like iodine or chlorine usually will stick on larger particles, so you will have fewer chemicals in the water to kill any bacteria, viruses or other biological threats, when many particles are present in the water. That's why you use the millbank bag first to filter most of the particles and the larger organism out of the water. Allowing the chemicals that are added after the filtering process to do there job effectively. Also the millbank prevents you from having lots of sand and other things between you teeth. But filtering is slow and combined with the reaction time of the chemicals will it will take even longer.



A single person millbank bag

The millbank bag is a bag shaped like a sock. It's made from very finely woven canvas, leaving very little space between the fibers. Because it's only made from strong canvas fabric, it's almost impossible to damage during normal use. Just don't stick any sharp objects in to it, even if that happens you can repair the hole. It's fully drop/shockproof and will not be as easily damaged by cold.

When using a millbank for the first time, wash it thoroughly to get the dust and other unpleasant thing out of the bag before use. A wash in the washing machine works great. To use the bag you have to soak it in water first. The soaking allows the fibbers to soak up water, making them larger. Thus making the space between the fibbers even smaller. When the bag has been soaked thoroughly, you scoop up water in side the bag and hang it on a tree branch or anything else. Just make sure it is strong enough to hold the bag.

Since the side of the bag is also contaminated with unfiltered water, you will have to wait a moment for the filter water to pass through the filter and flush the outside clean. There is usually marking on the bag that tells you to wait till the water has sunk below that level before collecting. When the water has sunk lower than the markings, put a form of collecting container underneath the bag. Group models usually lacks the markings because they have much more surface area and pressure to flush themselves clean and it takes a little more time to hang up. So by the time you get

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your cup under need it, it's clean.

It's harder to hang a group model up, because of a simple reason. A single person one has the capacity for approximate 2 litres, so you can hold it in one hand and use the other to hang and tie the string/rope to a branch. A group model can hold 5 gallons! (10 litres models are also available.) That's a lot of weight you have to hang on a tree. Not something that you can do easily with just one pair of hands, but since it's a group model you might as well ask the people in the group to help you. Also the bag is longer, so you have to hang it slightly higher. The height on the bag is suspended doesn't really mater much. Just make sure it's higher than the collection container and doesn't drag over the ground.



size comparison single person model on top of 5 gallon model

The collected filtered water is now free of most particles. It can be safely be sterilized using chemicals, follow the instruction on the package. Make sure you do not have thyroid problems, allergies, aren't pregnant and aren't a child.

Washing the bag will prevent the filter from getting clogged. The bag should be stored dry, so let it air-dry after use when possible to prevent things from growing. The bag should be stored in a clean bag to prevent it from getting dirty.

Good points: ultra simple and reliable if used properly.

Bad points: it only filters particles, so it will NOT remove chemicals, bacteria and viruses, it is pretty slow and needs chemicals or boiling to complete purification.

Conclusion The millbank bag can be very useful for those travelling in places with reasonable clean water. It is very reliable, but it is slow and is a particle filter only. For most hikers and outdoorsman a modern filter will be a much better choice, due to there better filter capabilities and speed.

Any additions or corrections will be posted on the comment section below.