

Water

The human body is made up of over 70% water, so if we are not constantly replenishing, we will start to show the effects of dehydration.

Definition of Water Fit for Human Consumption

Such water is called – potable. The term pot is used to indicate water can be placed in a pot (like a cooking pot) and safe to be consumed.

Average Consumption

On average a person requires about two (2) gallons of water per day for personal consumption, this includes water needed for meal preparation. Strenuous exercise in hot humid climates will double or more the amount of water needed. We are encouraged to have enough water on-hand for two weeks, which means having a minimum of 28 gallons of water stored per person. If you have dehydrated or freeze-dried food stored, you will need more water for reconstitution.

In addition to the need for personal consumption, water is needed for cleanliness and personal grooming. Also consider the need for water to flush toilets and wash clothes – this water does not need to be potable and is called gray water.

Does Water Get Old

Water does not get old or ‘go bad’. If stored for long periods of time it will go ‘flat’. Which means extra oxygen in the water has dissipated. It can be ‘restored’ by simply re-introducing the missing oxygen. Pouring water from one container to another several times will solve this problem. As the water passes through the air it picks up oxygen. Allow the water to ‘freefall’ about 12 inches between containers.

Proper Storage

If not stored properly water can become contaminated. Protect your water like the precious resource it is. Annually (or more often if you have reasons to be concerned) check your water storage to ensure it is still safe. If in doubt dump and replace with tap water from a chlorinated source, like City water. If your water container is questionable replace with a ‘food grade’ container. It is recommended that water containers not be placed directly on concrete. Position a flat piece of wood between the container and the concrete floor.

Should I Add Chlorine

Because chlorinated City water already has the correct amount of chlorine added, adding extra chlorine is unnecessary. Chlorine does ‘leach’ or dissipate out of water over-time, but this is not necessarily a problem because the water was safe when it was put into a secure container and as long as contaminants have not been introduced the water is fine.

When in doubt chlorine can be added, but you will probably taste the chlorine. Make sure to rinse out the old water container before refilling. Chlorine can be purchased. Follow the instructions and warnings listed on the bottle when adding to water.

Adding household bleach is **not** recommended. **Clorox is not chlorine.** If you add a household bleach to your tap water in an effort to make it more potable you have in effect done just the opposite. It will very likely make you sick.

Types of Containers

Opinions vary on the 'best' type of water container. 'Food grade' is the only requirement. Metal containers rust and glass breaks. Plastic containers are the most popular. Size is also a matter of preference. Large containers, like 50-gallon drums are not moveable and require a hand pump to get the water out. Hopefully, the pump does not get lost or broken. The upside of 50-gallon drums is they have a smaller 'foot-print' per gallon. 5-gallon water containers are moveable and can be positioned on a countertop so that they discharge water easily, but they take up more storage space and stack-ability is a concern. Water is heavy and weighs about 8 pounds per gallon.

Container Sizes

There are many container sizes and configurations. They range between 1 gallon and 50 gallons – personal preference is the key. The use of lightweight thin-walled plastic containers like a gallon milk jug is highly discouraged for several reasons. It is hard to get the taste of the milk out of the container and the water will start to taste sour. Over-time they start to leak. Thick-walled gallon fruit juice containers are OK, but the residual juice taste may be noticeable, plus their shape makes them un-stackable.

How Much to Store

It is impossible to store as much clean water as you may want, however stored water has a tremendous value in an emergency. It is a great barter item. Again, the amount to be stored is a matter of preference based on available space, finances and suitable containers and potable water.

Filtration vs. Purification

Water can be filtered or purified, or both.

Water Filters

There are commercial water filters available on the market for home use. Some of these are small and portable and can be used when journeying outdoors – for hikers and backpackers. Others are designed to sit on the kitchen counter. Filtration is the process of removing harmful organisms from the water, including protozoan cysts and bacteria. The filtration process does not remove viruses.

Water Purifiers

Purification is the process of treating or killing the organisms in the water. Unlike filters, which remove contaminants, purification kills microorganisms, including most viruses.

Boiling or Distilling

Other methods of creating clean water are boiling or distilling.

Know Your Source

It is virtually impossible to remove harmful chemicals from water. For example, fountains and other types of water features that have been chemically treated to remove algae and such. Such sources must be avoided as a water source for human consumption. Water from such a source is only useful to flush toilets.