### **Importance of Water**

Our Earth seems to be unique among the other known celestial bodies. It has water, which covers three-fourths of its surface and constitutes 60-70 wt % of the living world. Water regenerates and is redistributed through evaporation, making it seem endlessly renewable. So why worry?

Actually, only 1% of the world's water is usable to us. About 97% is salty sea water, and 2% is frozen in glaciers and polar ice caps. Thus that 1% of the world's water supply is a precious commodity necessary for our survival. Dehydration (lack of water) will kill us faster than starvation (lack of food). Since the plants and animals we eat also depend on water, lack of it could cause both dehydration and starvation. The scenario gets worse. Water that looks drinkable can contain harmful elements, which could cause illness and death if ingested.

Good water is essential to body cleansing. It's obvious. It sounds like a truism. Your body goes down fast without water. Making up almost three-fourths of the body, every cell is regulated, monitored and dependent on an efficient flow of water. Not one of the processes in our bodies could take place without water. Water is something that we take for granted. But how many of us really understand how essential water is or what happens to our body if it doesn't receive pure water every day, free of chemicals and pollutants?

- · Water is the adhesive that bonds your cell architecture. When you get enough water fluid retention decreases, and gland and hormone functions improve.
- · Water regulates your body temperature, maintains your equilibrium and helps the liver break down and release more fat.
- · Water carries every nutrient, mineral, vitamin, protein, hormone and chemical messenger in your body to its destination.
- · Proteins and enzymes, the basis for your body's healing capacity, function efficiently only when you have enough water.
- · Your daily energy depends on water, because your body's chemical reactions are water-dependent. Just like a hydro-electric system, the energy generated by your body's water is used by your two vital cell battery systems, ATP and GTP.
- · Your brain tissue is 85% water. Messages from your brain to everywhere else in your body are transported on "waterways."

Water is essential to the cleansing processes of your body.

- -It lubricates and flushes wastes and toxins from all cells.
- -It cleanses the internal organs.
- -It helps eliminate toxins from the bloodstream.

Drinking enough water is critical to keep your skin soft and supply, your brain sharp and your elimination systems regular. But there's another side to the water story. Most Americans have reduced their intake of fats (including the good Omega-3 fats) to the point that their bodies don't hold and use the water they do take in. It's one of the reasons I recommend adding more sea greens to your diet for moister skin, shining eyes and lustrous hair.... a quality of sea plants known since ancient Greek times.

How much is enough? Your body needs about three quarts of replacement water every day under normal conditions. Strenuous activity, summer temperatures, or a diet that's high in salt increase this requirement. Your foods provide up to 11/2 quarts of water per day. (Fruits and vegetables are more than 90% water. Even dry foods like bread are about 35% water.) Water for metabolism is produced as part of the food digestion process, yielding as much as a pint per day.

# The Importance of Water- An agent that precipitates weight loss.

### From Addflex

Water suppresses the appetite and helps the body metabolize stored fat. Studies have shown that a decrease in water intake causes fat deposits to increase, therefore, increasing water input reduces fat.

Why: The kidneys need water to function properly. Without sufficient water for the kidneys, the kidneys cannot work adequately and so this effects some of the water going to the liver. One of the primary functions of the liver is metabolize fat into energy for the body. If the liver needs to do some of the work of the kidneys, the liver can not work as it should to metabolize fat and so more fat is stored in the body increasing weight and not using the fat as energy.

Water helps to maintain muscle stimulation in aiding muscles to contract by reducing dehydration. It is important to drink water before and after a workout. There is evidence that cold water burns calories.

An average weight person, not over weight, relative to their physique should drink eight glasses a day - 8oz. or two quarts. If one is over weight or exercises with intensity regularly or if the weather is hot and dry, more water is needed.

To emphasize:

- · Water suppresses the appetite.
- Water metabolizes fat into energy.
- Increasing water input, reduces fat deposits.
- The body will not function properly without enough water and can not metabolize

stored fat efficiently.

- Retained water shows up as excess weight.
- To get rid of excess water, one has to consume more water.
- Drinking water is essential for weight loss.
- Water helps muscle stimulation.
- It is important to drink water before and after exercise.
- One should drink two quarts of water a day.

## What does water do in your body?

from the book: Is Your Water Destroying Your Health? by: Stephney A. Langford



- Water helps to carry food (nutrients) and oxygen to every cell in your body.
- Water flow controls the temperature of your body.

When your body gets too hot it sweats, releasing water which then cools your body off. When you do not drink enough water, your body loses its ability to cool itself off when necessary. Sweat cooling off your body by evaporation.

·Water helps clean the stomach, and aids digestion.

When water enters the stomach, the stomach sphincter muscle opens and allows the water to flow freely into the intestine.

Other fluids do not replace water as a digestive aid.

Anything added to the water you drink, even such things as lemon juice, tea or coffee will cause the stomach sphincter muscle to close. The stomach walls then release enzymes along with other gastric juices so that they can break down what has been added to the water.

Drinking water between your meals helps to flush your stomach of the small, trapped pieces of food. Your clean stomach can relax and stop producing acids.

· Water helps clean the small intestine.





After you eat a meal you wash your dishes and rinse them. You don't eat out of the same dirty dishes, meal after meal.

When you drink room temperature water between your meals, it rinses your small intestine, loosens up the food and helps move it to the next section of the intestine. Water is needed to carry the nutrients into the intestine wall, improving the absorption of your food.

Drinking room temperature water between meals helps to flush out old food particles. This helps the good bacteria to keep the sides of the intestine wall clean.

### Water helps clean the large intestine.

In order to maintain the proper water balance in your body, water is moved in and out of the large intestine. If your body is short of water you may get constipated.

Friendly bacteria help the water move into the waste in the large intestine to soften it so you don't have to strain.

### · Water helps the body remove toxins.

When you breathe out, water leaves the body carrying toxins.

Water helps flush out solid waste.

Water helps toxins leave the body through the skin.

Water helps clean your blood. The kidneys pull the toxins out of your blood and the water carries the toxins out of your body through the bladder.

**Plants** 

### Water Regulation in Plants

A plant requires water as an essential ingredient of photolysis, the photochemical stage of photosynthesis where water is split using light energy. This is the part of the process in which a plant obtains its' energy, and thus illustrates the importance of water to a plant.

Water is absorbed from the root and is transported to all areas of the plant, this passage of water is called the <u>transpiration stream</u>. Water is absorbed by the <u>roots</u> of a plant, which possess many <u>root hairs</u> with large surface areas for extensive absorbing of water. We have already discussed how <u>osmosis</u> occurs across a <u>concentration gradient</u> in preceding tutorials, and this is the case here.

When water is required an the concentration of water in the roots is low, water is absorbed from the higher concentration of water found in the ground. This same occurrence goes for the concentration difference between cells, as the *water rich* root cells allow osmosis to occur up the plant until their is an equal concentration throughout the organism.

Scientists were previously perplexed by the nature in which water could defy the force of gravity and move up the plant, since water molecules are heavier than the surrounding atmosphere. Through extensive studies, the following factors are thought to play a role in pushing water up the transpiration stream.