

# Evolve

## For Optimal Health: Stay Hydrated!

Enhance the results of your fitness and manual therapy programs by drinking more water.

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*In addition to bolstering athletic performance, being well hydrated helps maintain and enhance the results of massage and physical therapy.*

Did you know that water makes up 75 percent of all muscle tissue in your body? This essential nutrient transports nutrients to your cells, helps flush waste from your tissues, and lubricates your joints. Water also helps maintain body temperature, supports healthy digestion, and cushions and protects vital organs.

You are probably well aware that being adequately hydrated enhances athletic performance and speeds post-workout recovery. But did you know that it also helps you get the most out of massage and physical therapy? Making sure you are well hydrated during your rehabilitation from a musculoskeletal injury helps mobilize and flush affected soft tissues, so you will get better faster!

Simply put, water is essential for health and healing.

### WHAT DEPLETES FLUIDS?

With one hour of exercise, your body can lose more than a quart of water, depending on exercise intensity and air temperature. But even when you are not active, you lose water each day when you urinate, sweat, and even when you breathe. Illness and aging can also deplete fluids, and certain medications including diuretics, anti-histamines, blood pressure medications, and some psychiatric drugs can cause dehydration as well.



### HYDRATION AND EXERCISE

Even small amounts of water loss can hinder athletic performance. Losing as little as 2 percent of your body weight from sweating causes a drop in blood volume that makes your heart to work harder to circulate blood. This can cause cramping, fatigue, and loss of coordination.

To prevent dehydration, the American College of Sports Medicine recommends that you drink before, during and after your workout. Fluid intake will vary according to individual characteristics, like your body weight and metabolism, and according to your activity, intensity, and environment.

## Hydration and Manual Therapy

In general, the recommendation is to prehydrate 2-3 hours before your workout, then hydrate during and after your workout to prevent loss of more than 2 percent of your body weight from water deficit, as follows:

### **Hydration Before Exercise**

Drink about 15-20 fl oz, 2-3 hours before exercise.

Drink 8-10 fl oz 10-15 min before exercise.

### **Hydration During Exercise**

Drink 8-10 fl oz every 10-15 min during exercise.

### **Hydration After Exercise**

Weigh yourself before and after exercise and replace lost fluids.

Drink 20-24 fl oz water for every 1 lb lost.

For most exercisers, drinking water is the best way to replenish fluids. However, if you are planning to exercise at a high intensity for longer than 60 minutes, a sports drink may be helpful. Sports drinks restore electrolytes and prevent low blood sugar. Read nutrition labels closely because sports drinks can be high in calories from sugar. They may also contain high levels of sodium, and some are caffeinated.

### **HYDRATION AND MANUAL THERAPIES**

In addition to bolstering athletic performance, being well hydrated also helps maintain and enhance the results of massage and physical therapy by helping mobilize and flush affected soft tissues.



The soft tissues of the body (muscle and fascia) depend on adequate hydration for optimal function. Well hydrated tissue stretches and glides against neighboring tissues. Unhealthy tissue is dry, rigid, and adhered to itself and to other structures, restricting your ability to move freely and causing pain and discomfort.

Being well hydrated also enhances cellular metabolism by providing a watery medium in which nutrients can move freely into cells and waste (like lactic acid) can move out of cells. Waste is then picked up by the circulatory and lymph systems and exits the body as sweat, urine, or feces. Without adequate water, waste sits in the tissue, often causing pain, and muscle cells as well as the cells present in fascia (which make fascia strong and supple) are denied nutrients.

When muscle and fascia are restricted, as they are with many musculoskeletal complaints, the flow of blood and lymph to the area is restricted as well. Consequently, metabolic waste cannot be transported out of the body. However, with manual therapies, the flow of blood and lymph to the affected area is restored, and waste products begin to make their way out of the body.

By drinking water after physical therapy or massage, you can speed the removal of this waste from your system.

If you have had a particularly long-held restriction, you may experience achiness and flu-like symptoms following your session. This is simply an indication that a lot of waste has been released and needs to be moved out of the body. Increasing your water intake should help alleviate these symptoms.

### **HYDRATION TIPS**

1. Drink water, juice, smoothies, and herbal tea. Fruits, vegetables, and soups are also hydrating. Even caffeinated beverages, in moderation, count toward your daily water intake. About 200-300 mg of caffeine (two 8-ounce cups of coffee) is not harmful for most people.
2. Drink before you are thirsty. Thirst is a signal that your body is already on the way to dehydration.
3. Check your urine. If it is colorless or light yellow, you are most likely staying well hydrated.
4. Watch for symptoms of mild to moderate dehydration: Thirst, dry mouth, fatigue, headache, confusion, dizziness, little urine output or dark urine. Severe dehydration may be accompanied by a rapid heart rate, rapid breathing, fever, irritability, and in serious cases delirium or unconsciousness. Seek immediate medical attention with severe dehydration.