

Water/Hydration

What are Water's Functions in the Body?

- Water makes up about 60% of your body weight
- Water flushes out waste products from the body
- Carries nutrients and oxygen to each cell
- Lubricates joints
- Regulates your body temperature
- Prevents constipation
- Eases the burden on your kidneys and liver among many other crucial functions

Why is it Important to Drink Water?

- Your body regularly loses water through urination, sweat, breathing and bowel movements. Therefore, you must constantly replenish the lost water by consuming liquid and eating water dense foods.

Dehydration: is a condition where the body doesn't have enough water and can cause:

- Dry or sticky mouth, where the body doesn't produce adequate saliva.
- Decreased urine output; concentrated urine is dark yellow or amber in color and often accompanied by an odor.
- Dizziness or lightheadedness along with a headache can occur and become more severe if dehydration is not reversed.
- Excessive thirst; often dehydration can start before an individual becomes thirsty
- Low blood pressure accompanied by a rapid heartbeat and/or rapid breathing.

How Does Water Affect Our Organs?

Brain: Drinking an adequate amount of water helps boost memory, attention, and lessens your likelihood of having headaches.

Kidneys: Being properly hydrated allows the kidneys to excrete metabolic waste and keeps urine a pale yellow color. A chronically low water intake has been linked to an increased risk of developing kidney stones while increasing the stress on this organ.

Heart: The heart requires blood to be a certain thickness (viscosity) to work optimally. When a person is properly hydrated the heart efficiently pumps the blood throughout the body without **extra** effort. While dehydrated, the heart has to work *harder*, resulting in a rapid heartbeat and inefficient delivery of oxygen to the organ systems.

How do you know if you're hydrated?

- Urine should be a pale yellow color (NOT clear)
- Drink fluids consistently throughout the day, not in large chunks
- Keep electrolyte balance by adding electrolytes to your water after sweating
 - Avoid sugary electrolyte drinks like gatorade
 - A great option is LMNT (Coach Isaac and Haley's favorite [Click here to buy a sample pack!](#))

Sleep

What are the Functions of Sleep?

- Muscle repair
- Memory consolidation
- Release of hormones to regulate a wide range of bodily functions
- Help control appetite
- Contribute to a robust immune system
- Keep us alert and attentive

How much sleep do you need?

14-18 year olds need **8-10** hours of sleep every night.

What are the Consequences of Inadequate Sleep?

Adequate sleep is vital to critical thinking skills, learning, problem solving, reasoning, alertness, coordination and more. Chronic inadequate sleep can cause the body to release more of the stress hormone cortisol. Elevated cortisol levels increase appetite, which causes cravings for sugar and carbohydrate foods. Elevated cortisol levels also increase STRESS, which in turn causes your body to function at a lower capacity in school and athletics.

Stages of Sleep:

Stage 1: Light sleep

Stage 2: Onset of sleep

- Body temperature drops
- Breathing and heart rate become regular
- Arousal is more difficult by sound, light, and movement

Stage 3: Most restorative sleep

- Delta or slow brain wave sleep
- Blood pressure drops, breathing is slower
- Muscles relax and receive increased blood flow
- Tissue growth/repair occurs
- Hormones are released

Stage 4: Rapid Eye Movement (REM) Sleep

- Body becomes immobile
- Brain is as active, or more active, than when awake, dreams can occur
- Supports daytime learning of complex tasks
- Muscles relax and receive increased blood flow
- Tissue growth/repair occurs
- Hormones are released.

How to get good sleep:

- Set a regular schedule - our bodies operate on circadian rhythm and love routine
- Avoid caffeine after 2pm
- Avoid electronics 1 hour before bedtime
- Keep the room cool

Nutrition

The average individual should consume about 60-65% of their calories from carbohydrates, 20-25% from protein and 10-15% from fat. As runners, more carbohydrates are necessary to perform at your best. Eating as many whole foods as possible (not processed) will make your body function at its best. If you can't pronounce or know what an ingredient is, you might want to rethink choosing that food.

A healthy diet consists of 3 macronutrients: Carbohydrates, Protein, Fat

Carbohydrates:

- Fruits and Vegetables
- Starches: Rice, potatoes, pasta
- Grains: bread
- Legumes/beans
- Some dairy
- Sugar (and most drinks)

Protein:

- Meat
- Fish
- Some dairy; low fat cheese/greek yogurt

Fat:

- Oils. Avocado and olive are best
 - Avoid canola, palm kernel, soy, corn, cottonseed, safflower/sunflower oils
- **REAL** butter. **No** country crock or margarine
- Avocado
- Nuts/Nut butters
- Some dairy

Nutrition Facts	
8 servings per container	
Serving size 2/3 cup (55g)	
Amount per serving	
Calories 230	
	% Daily Value*
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

1. Always check the serving size, as that is what the nutrition label is communicating. A per serving breakdown, not necessarily for the whole package/can.
2. Whichever macronutrient has the highest amount of grams, is what the food is "classified" as. If fat has 10g and there are 5g carbs and 3g protein. The food falls within the fat category. Ex. Peanut butter is a fat, not a protein, even though it has protein in it.
3. Pay attention to the carbohydrate label. It will list 3 things: dietary fiber, sugars and **ADDED** sugars. You want to avoid **ADDED** sugars. Natural sugars found in whole foods like fruits and vegetables are not added sugars.
 - There are many different names for added sugars; words like syrups, sucrose, fructose, dextrose, glucose, erythritol, Splenda, and cane sugar
4. Read the ingredient list. You should recognize everything you read.
5. Avoid food dyes

*Special notes:

- Soy should be avoided as much as possible, especially for female athletes!
- Red meat is an important source of iron and B vitamins which are necessary for proper red blood cell function (red blood cells carry oxygen to our muscles, very important for a runner!) A vegetarian or vegan **cannot** get the adequate nutrition needed for proper functioning, athlete or otherwise.
- Supplementation should only occur if a person is deficient even after eating a diet filled with foods with the vitamins and minerals needed. Food **first**, supplementation second/in addition to.