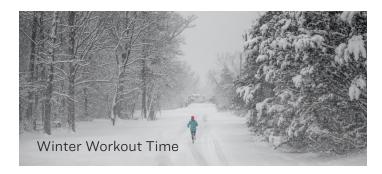
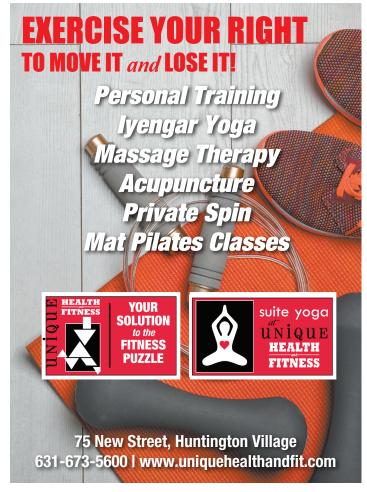
HELEN TO THE RESCUE



Exercising outside in the winter is perfectly safe, but it does require some extra precautions. The physiological and metabolic impact of exercising in cold weather can be intense. The body needs to work harder to perform in a harsher climate and be able to generate adequate heat to keep warm.

When the body is exposed to a significant change in temperature, its initial need for energy increases, so it breaks down glycogen, a form of carbohydrate, in the muscles. Glycogen is our body's primary source of stored energy that is available for use immediately. It's important to optimize nutrient intake before, during, and after cold weather training/ workouts to ensure adequate repletion of energy stores and optimize muscle function.



Eating a hearty meal rich in carbs and protein twoto-four hours before a workout will give your body an optimal fuel source. If you're out for a long duration, make sure after the first hour to refuel. Some of my favorites are a peanut butter sandwich, orange slices, a banana, an energy bar, or a trail mix with dried fruit.

Your body will fatigue faster in cold weather without adequate fuel. The cold slows down all your body's chemical processes, including your nervous system's ability to generate muscle contraction.

HYDRATE EVEN WHEN YOU DON'T FEEL LIKE IT

Dehydration during cold weather exercise carries the same risk as it would when exercising in the heat, but a person will not feel as thirsty. The cold diminishes thirst by up to 40%

Your blood vessels constrict when you're cold and prevent blood flow to the extremities, like your hands and feet. Blood vessel constriction is a warming mechanism that allows your body to draw more blood to your core. A good rule of thumb is for every hour of physical activity — in the cold or in the heat — the body needs 16 ounces of water.

HYPOTHERMIA AND FROSTBITE

Cold weather can put the body at risk of hypothermia. Plenty of layers and moisture-wicking clothing are the best defense, along with limiting exposure. Frostbite can occur on exposed skin in less than thirty minutes. Gloves, warm socks, and hats are good protection from the cold.

BOTTOM LINE

To achieve peak athletic performance in cold conditions, research shows that consuming the right nutrients early and often and hydrating even when you are not thirsty will go a long way. Layered clothing to provide insulation and protection from the elements, as well as avoiding extended exposure to cold, will also protect you from certain dangerous conditions.

It's only cold if you're standing still.

Yours in Fitness.

Helen Pufahl MS, NASM-CPT

Helen's love of fitness began at an early age. She practiced dance and gymnastics as well as track and field. She's an Exercise Physiologist with over 35 years of experience. She is also a certified personal trainer, corrective exercise specialist,



nutrition consultant, and Senior fitness specialist. Helen is the owner of Unique Health & Fitness.