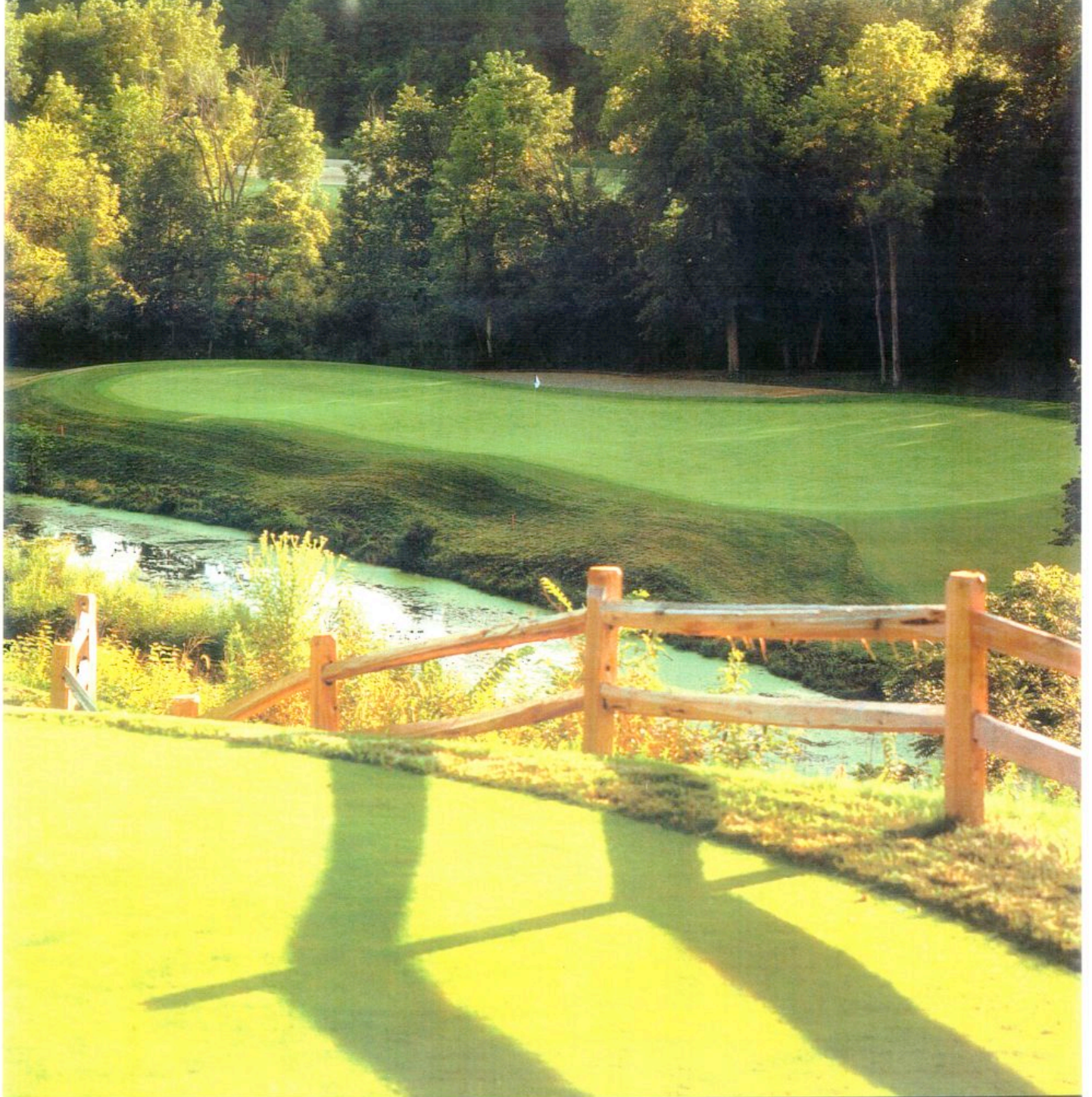


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Simple Strategy — Dramatic Results

By Dr. Lynn McIntosh

Have you ever been surprised by fatigue on the golf course? Perhaps you have found yourself suddenly without the energy you need to tee off on No. 12 when you would normally have plenty of energy to complete 18 holes of golf. Have you ever found yourself unexpectedly impatient with your golfing buddies? Perhaps you have been irritable and agitated by small things that would normally go unnoticed by you. Perhaps your communicated responses to others have been offensively short or rude when you are reputedly easy-going and socially compatible.



Fatigue and irritability are two of the most common early symptoms of dehydration. Other early physical symptoms include headache, dizziness, dry mouth, lack of coordination, weakness, cramps, nausea and thirst. (Although thirst may be the first acknowledged symptom, thirst is not the body's first indication of dehydration. In fact, dehydration is already affecting your general physical condition by the time you feel thirsty!) Dehydration also compromises mental and emotional capacity. Dehydration can cause mental fatigue, indecisiveness, apathy, difficulty concentrating, confusion and forgetfulness. Any or all of these symptoms may be early warning signs that your body is experiencing dehydration.

Dehydration occurs when the body uses water within the blood to replace needed fluids. The body's natural function includes maintaining core body temperature, reducing the heat produced by muscular activity, by producing and releasing sweat. If the body's fluid supply is compromised to the point of dehydration, the fluid necessary for the maintenance of core body temperature is taken from the blood supply. Blood volume is threatened when water from the blood is needed to cool the body. Thirst, perhaps the most easily recognizable symptom of

dehydration, is the result of a rise in the body's sodium concentration and a drop in total blood volume. When the water necessary for the maintenance of core body temperature is taken from the blood, plasma-sodium imbalance occurs, which stimulates thirst.

If left unchecked, if the loss of blood volume through dehydration exceeds 3% of the body weight, symptoms become increasingly serious. Heat cramps, heat exhaustion and heat strokes can be critical outcomes of ignoring the body's need for fluid replacement. Extreme dehydration, the loss of 5% or more of one's body weight, can lead to rapid heartbeat, vomiting, convulsions, low blood pressure, sunken eyes, lack of skin

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elasticity, severe muscle contractions, incoherence, shock and loss of consciousness. Dehydration can be deadly.

The very best management of dehydration is prevention – the continual intake of fluid necessary to maintain your body's fluid equilibrium. 50-70% of an individual person's body weight is the weight of water. The majority of the body's water weight composition is intracellular water (actually within the body's individual cells). The remainder is extracellular (between cells). Water functions within the body as reactant, solvent, transporting agent, lubricant, and temperature manager.

The body's rate of water usage is increased by exercise, heat, and humidity. Fluid loss of as little as 2% of the body's weight can impair physical performance by exaggerating fatigue. One pound of water weight equals

450 ml. Therefore, a person weighing 200 pounds may experience symptoms of dehydration after a loss of only four pounds (1800 ml. of water). Dehydration is prevented when the amount of fluid available to the body through food, fluid intake and body metabolism stays ahead of the rate of fluid leaving the body through perspiration, expiration, urine and stool.

Acute dehydration is normally remedied quite simply. Be **sure** to rehydrate your body after a game of golf! Establish a disciplined routine of hydration by weighing yourself after a round of play and then taking in three cups of fluid (non-alcoholic, non-caffeinated) for each pound lost as a result of your game. Water is the number one recommended source of hydration. Sport drinks that contain 4-8% carbohydrates may be considered when exercise is intensive and prolonged. It is important to intake fluids that stimulate rapid absorption into the body. Drinks containing more than 8% carbohydrates are not recommended.

The symptoms of dehydration and their negative impact on your game can be easily avoided. Healthy hydration simply requires staying ahead of your own body's needs. Anticipating your physical activity, as well as anticipating the physical setting and weather conditions, will help you stay healthy, compatible and capable on the course. Taking in the fluids you need ahead of time, and continuing to drink non-alcoholic, non-caffeinated fluids as you play, will insure that your body maintains its own capacity for fun and full performance on the golf course!

Dr. Lynn McIntosh is a board-certified chiropractor, licensed in both Kansas and Missouri. In addition to being licensed to provide general chiropractic care; Dr. McIntosh is a Certified Chiropractic Sports Physician, working with athletes from multiple disciplines on specific sports-related problems.

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