# Your Health

# All About Joints

Joints are the flexible parts that connect bones in the body. Without them, we couldn't bend and stretch.

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Human joints are classified depending on how much they move: Synovial joints, such as elbows and hips, can move a lot. Cartilaginous joints move a little bit, such as in the spine. Fibrous joints don't move. For instance, the bones of the skull once moved but fuse together as children grow.

## PARTS OF THE JOINT

Joints are made from different kinds of tissue. There are the bones, of course, which connect through the joint. Ligaments connect those bones and tendons attach muscles to bones, controlling movement. Cartilage covers the surface of a bone at a joint and reduces friction between the bones. Bursae are fluid-filled pods that help cushion bones where they meet. Lastly, the synovial membrane lines the joint and seals it into a capsule. It produces the synovial fluid to lubricate the joint.

## MOVING JOINTS

Joints move in several ways. Hinge joints, such as knees and elbows, usually only move in one direction. Pivot joints, such as the neck, allow for rotating or twisting motions. Ball-and-socket joints, as are found in the shoulders and hips, allow for movement in many directions. Condyloid joints have an egg-shaped bone that moves around in an egg-shaped cavity. The jaw is an example of a condyloid joint. Saddle joints allow movement back and forth and side to side, but not rotation. The base of the thumb is a saddle joint. Gliding joints, such as the wrist and ankle, are made of bones that slide past each other.

## JOINT INJURIES

With so many moving parts, it's no wonder joints are easily injured. One of the most common and least serious injuries to a joint is a sprain, which happens when the ligaments in a joint stretch or tear. Dislocations happen when a joint is knocked or pushed out of place. These injuries should be treated by a health care professional.

Arthritis is a disease that causes damage to joints. Symptoms include swelling, stiffness and pain. Juvenile idiopathic arthritis is found in children and many types of JIA are autoimmune diseases. Rheumatoid arthritis is also an autoimmune disease, but it can affect adults. The immune system attacks healthy joint cells and causes swelling and pain. Osteoarthritis is caused by repeated stress on a joint through getting injured or being overweight. It's more common as people age.

# Know Your Supplements

Store shelves are full of nutritional supplements claiming to help you lose weight, improve your memory, feel more energetic, build muscle and more.

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And many supplements do have some benefits, but many more may not work as advertised.

It's a lucrative market, too. UCHealth says Americans spend around $60 billion every year on supplements, a shockingly high number considering many of these supplements offer little to no evidence of whether they're effective. Dietary supplements aren't approved by the U.S. Food and Drug Administration, but they can be third-party tested by organizations as the NSF or USP.

Here are some supplements and the benefits they can — or cannot — provide, according to UCHealth.

## ASHWAGANDHA

Ashwagandha is derived from a tropical evergreen and is an adaptogen, meaning it boosts resilience to stressors. Studies have shown it can reduce stress and improve sleep quality, UCHealth says. It isn't recommended during pregnancy, breastfeeding or prior to surgery, and UCHealth experts don't recommend it for people with an autoimmune condition.

## COLLAGEN

Collagen is popular for fighting signs of aging in the skin, but it really does much more than that. UCHealth says there are 28 types of collagen that do all sorts of things in cartilage, muscles, arteries, hair and more. Vitamin C is crucial to building collagen-based structures and much of the research on the efficacy of collagen includes vitamin C that the average person may not have. UCHealth advises that, instead of supplements, aim for getting plenty of food rich in vitamin C, such as cantaloupe, citrus, broccoli and dark, leafy greens.

## GREEN POWDERS

Powdered greens or green powders have gone viral, but UCHealth experts recommend eating the real deal instead. It's hard to track exactly what's in the powdered greens, they say, including additives and sweeteners. Opt instead for the whole food and a balanced diet.

## MAGNESIUM

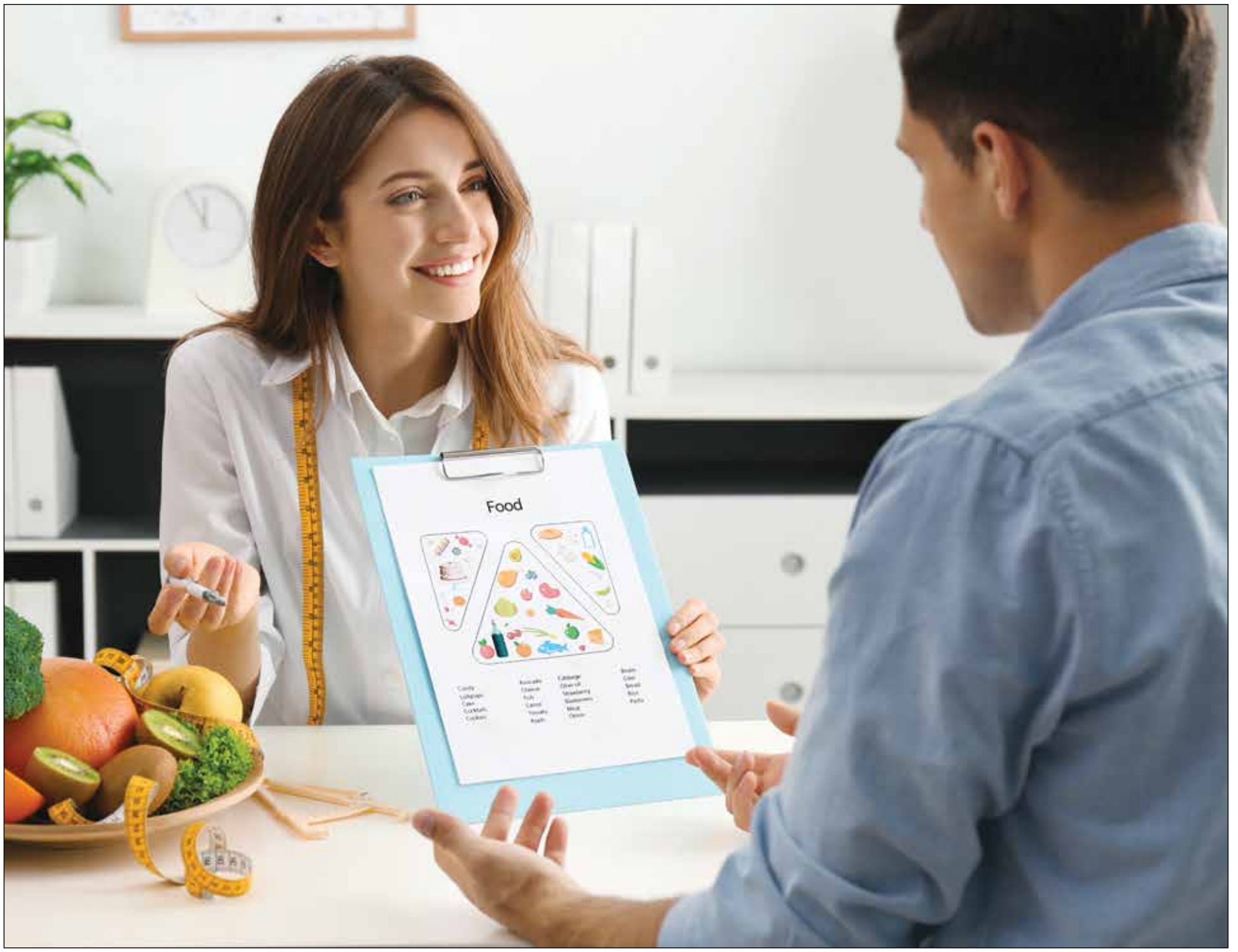
Magnesium supplements are popular on social media, but UCHealth says research is inconclusive on whether magnesium can help with leg cramps, insomnia or dementia. But it may treat and prevent migraine headaches, UCHealth says.

## PROBIOTICS

Probiotics is an umbrella term for bacterial strains that support a healthy gut, UCHealth says, but it's complicated. Different strains have different benefits, experts say, and health professionals can help choose the correct one. UCHealth doctors recommend a balanced diet instead.

# Before Visiting a Nutritionist

A nutritionist is a health care professional that uses food to improve health and prevent and manage disease.

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Dietitians, on the other hand, must take exams and earn board dietitians. While all registered dietitian nutritionists are nutritionists, Washington State University says, not all nutritionists are dietitians.

"Nutrition is the specialty that can help every other specialty," UCLA's Dr. Vijaya Surampudi says. "Nutrition is so broad, it plays a role in any disease or specialty you can think of."

The first appointment with a nutritionist, Triborough GI says, is usually an initial consultation. During this appointment, the nutritionist may ask about dietary habits, medical history and lifestyle. Follow-up appointments are typically shorter and check in on progress and adjust the diet as needed.

A nutritionist may conduct a physical examination and body composition analysis to help determine a patient's needs and goals. They will analyze eating habits, including when and where the patient eats and any emotional or psychological factors affecting diet. Nutritionists may provide education and counseling to help patients understand how to use their personal strengths to help with change.

"It's one thing to take a medication and call it control," Dr. Surampudi says. "It's another thing to make healthy choices, to actually take control of your life. That has a huge impact on a patient's quality of life and how they view themselves."

Certified nutritionists can help manage dietary conditions such as diabetes, heart disease and obesity to mitigate the effects of these diseases or even prevent them. They can plan meals for special groups of patients, such as pregnant women, the elderly and athletes. Surampudi says her goal, in the long run, is to help patients help themselves. She and other nutritionists can create tailored nutrition plans and even prescribe medications if needed, as she has completed medical training.

Seeing a nutritionist tends to be a long-term process. Dr. Surampudi says she helps her patients understand and accept what they put in their bodies affects overall wellness, disease outcomes and disease risks.

"Nutrition is a long-term commitment," she says. "There's no instant gratification."

# Understanding Allergies

Allergies are what happens when a body's immune system overreacts to something that's not usually harmful, causing a range of symptoms that sometimes depend on the level of exposure to the allergen.

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Coming into contact with something you're allergic to — an allergen — activates the body's mechanisms meant to protect you from harm.

## COMMON ALLERGENS

People can be allergic to almost anything, but some common allergens are bee stings, insect bites, dust mites, food allergies, medication allergies, mold, pet hair and dander, poison ivy and other plants, pollen and more. Usually, the Cleveland Clinic says, patients must be exposed to a substance more than once before the body reacts to it. The first time someone is exposed, the body sees the allergen as foreign and creates antibodies to it. Upon the next exposure, the body activates the antibodies, triggering allergic symptoms.

## ALLERGY SYMPTOMS

Exposure to an allergen can cause a wide range of symptoms, including a skin rash or hives, itchy skin, sneezing, runny nose, cough, wheezing, watery or itchy eyes, swelling, difficulty breathing or swallowing, vomiting or diarrhea, or low blood pressure. Symptoms may vary depending on how long someone is near an allergen. Generally, the allergy lasts as long as the patient is exposed to the allergen, but some allergies, such as the rash from poison ivy, can last weeks.

Anaphylaxis is a severe allergy symptom and requires immediate medical attention. Signs of anaphylaxis include a drop in blood pressure; narrowing of the airways, causing difficulty breathing; a rapid, weak pulse; a skin rash; nausea and vomiting. It can be fatal. Anaphylaxis is treated by an injection of epinephrine and a follow-up emergency health care visit.

## DIAGNOSING AND TREATING ALLERGIES

Health care providers diagnose allergies with skin and blood tests. Depending on the suspected allergies, providers may recommend breathing tests, drug or food challenges, or patch tests that look at skin reactions.

Allergies are treated, by and large, by avoiding the allergen, especially if one of the symptoms is anaphylaxis. Some medications, such as antihistamines or steroid sprays, can help treat the symptoms of allergies.

# Exercise Trends

The World Health Organization reports that 31% of adults and 80% of adolescents aren't meeting recommended guidelines for physical activity.


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If you fall into one of those groups, it's time to make a change. Here are top trends in exercise from the American College of Sports Medicine to get you moving.

## WEARABLE TECH

Wearable technology, such as watches and other gear, are gaining popularity for tracking the frequency and efficacy of exercise. "Wearables are getting smarter each year and it is important we leverage these enhancements to motivate and inform our clients," says Cayla McAvoy, Ph.D., ACSM-certified exercise pathologist and author of the ACSM study.

## MOBILE EXERCISE APPS

Mobile exercise apps are another trend that goes hand-in-hand with wearable tech. In 2023, the ACSM said there were a mind-boggling 850 million fitness app downloads by 370 million users.

"Wearable devices, mobile apps and data-driven training methods will create avenues for reaching new clientele and elevating fitness experiences," says A'Naja Newsome, Ph.D., ACSM-certified exercise pathologist and an author of the ACSM study.

## FITNESS PROGRAMS FOR OLDER ADULTS

McAvoy says exercise can have a profound effect on improving the quality of life for older Americans. Exercise can boost mental well-being and lead to reduced risk of chronic illnesses, increased cognitive function and more independence, she adds.

"These programs cater specifically to the unique needs of older individuals, promoting strength, flexibility, balance and cardiovascular health through tailored exercises," she says. "By focusing on these aspects, they not only improve physical capabilities but also bolster mental well-being and overall quality of life."

## EXERCISE FOR MENTAL HEALTH

Mental and physical health are connected, says Rachelle Reed, MS, Ph.D., ACSM-certified exercise pathologist and another author of the study.

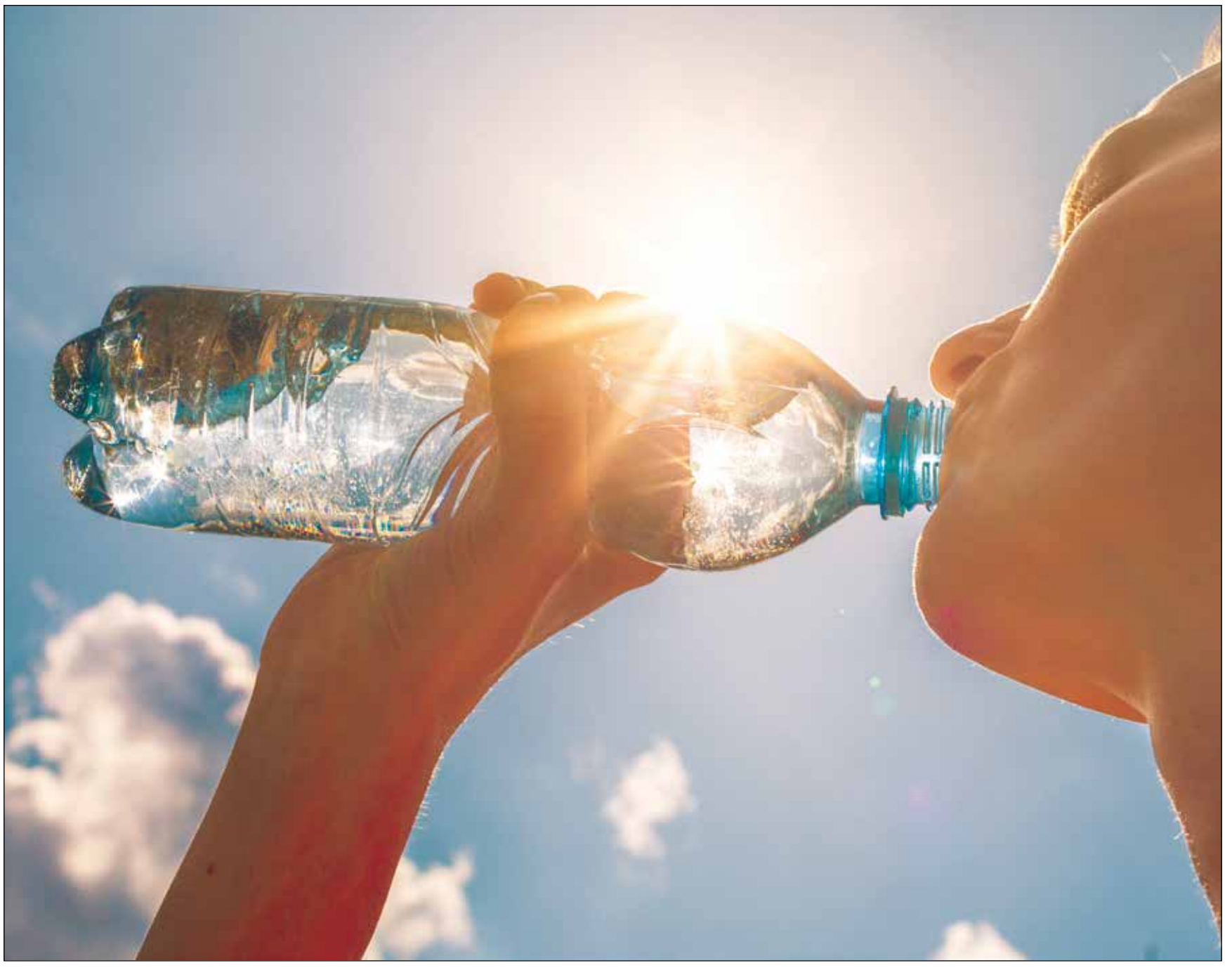
"As clients seek solutions to effectively manage stress, reduce symptoms of anxiety and sleep better, exercise may be increasingly part of a more holistic approach to supporting mental health," Reed says.

Jennifer Heisz, Ph.D., told the ACSM that mental health can foster resilience in physical health.

Integrating that aspect into exercise training along with physical strength and stamina can help boost overall health and well-being.

# Hydration Basics

The average adult is about 60% water, and it's important that we drink plenty of fluids during the day to keep everything running smoothly.



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Water helps transport oxygen and nutrients through the body; eliminates metabolic waste; absorbs muscle heat during exercise and dissipates it through the skin; regulates body temperature; helps digest food; lubricates joints and cushions organs and tissues; and supports healthy brain function.

## EIGHT GLASSES OR NOT?

The University of Rochester Medical Center says drinking eight glasses of water per day is easy to remember, but it's not always true. On hot and humid days, the university's experts say we need to drink more. So will pregnant or breastfeeding women or people with other health conditions. The U.S. National Academies of Sciences, Engineering and Medicine recommends 92-124 ounces of water daily for the average adult in a temperate climate.

URMC suggests paying attention to your body to know when you need to drink up. In fact, being thirsty may already be a sign of dehydration.

## SYMPTOMS OF DEHYDRATION

Symptoms of dehydration can differ by age, the Mayo Clinic says.

For an infant or young child, look for:

- Urinating less than usual or no wet diapers for three hours
- Dry mouth
- No tears when crying
- Rapid heart rate
- Sunken eyes, cheeks or soft spot on top of the head
- Lacking energy or being cranky
- Skin that doesn't flatten back right away after being pinched

Adults should watch for:

- Extreme thirst
- Urinating less
- Dark-colored urine
- Tiredness
- Dizziness
- Being confused
- Skin that doesn't flatten back right away after being pinched
- Sunken eyes or cheeks

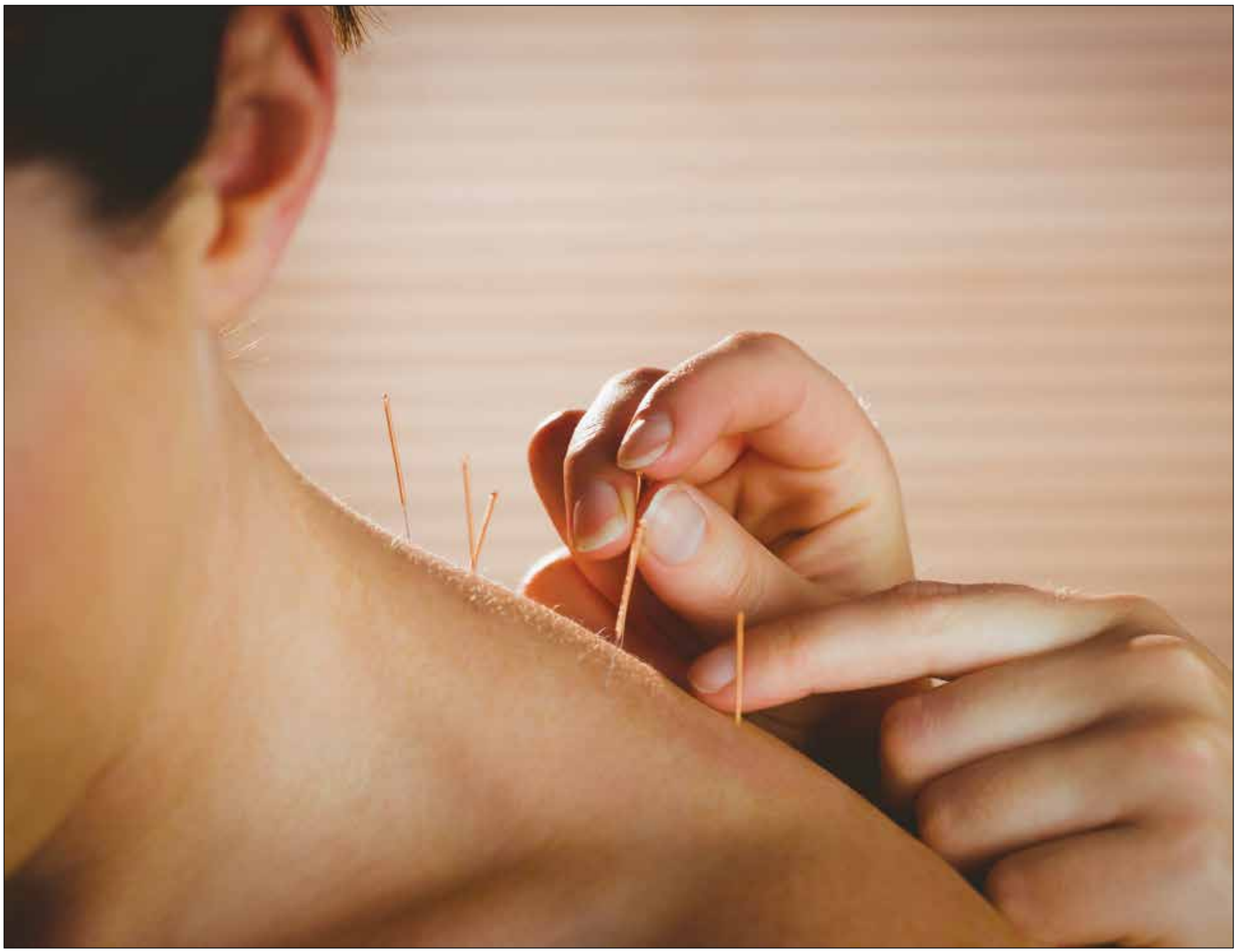
Mayo Clinic says dehydration can lead to serious complications, including heat cramps, heat exhaustion and heatstroke; urinary and kidney problems, such as infections and kidney stones; seizures; low blood volume shock, which can be deadly. Drinking more fluids can usually help with mild cases of dehydration, but severe dehydration needs emergency medical treatment.

Seek medical attention, the Mayo Clinic says, if someone:

- Has had diarrhea for 24 hours or more.
- Is cranky or confused.
- Is sleepier or less active than usual.
- Can't keep down fluids or has bloody or black stool.
- Has a fever of 102 degrees or higher.

# Learn About Acupuncture

Acupuncture comes from traditional Chinese medicine. That practice holds that the body's vital energy, qi, flows along specific channels.



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When qi is balanced, a person has spiritual, emotional and physical health. Acupuncturists believe the body has more than 2,000 acupuncture points linked through the channels on which qi flows.

In modern Western medicine, acupuncture is often used to stimulate the body's system in conjunction with more conventional medical treatments.

The qi is unblocked when thin needles are pressed into the skin along certain points and activated using the provider's hands or through electrical stimulation.

Johns Hopkins says acupuncture can be effective in treating conditions such as gastritis, hepatitis, hemorrhoids, anxiety and depression, insomnia, sinusitis and rhinitis, menstrual pain, arthritis, back pain, neck pain, headaches and migraines, Parkinson's disease, postoperative pain, stroke, male infertility, addiction and more.

The Cleveland Clinic says acupuncture needles are sterile and disposable and very thin, thinner than medical needles even. The provider will place needles at various depths and they may stay in for a few minutes or for as long as 20 minutes. Needles may be heated or electrified during treatment, and some patients report feeling dull muscle aches or tingling, but usually very little pain. The Cleveland Clinic says the acupuncturist may ask you to report feeling deep heaviness or numbness, which usually indicates the treatment is working.

When choosing an acupuncturist, Johns Hopkins says to first discuss the practice with your health care provider. "Acupuncture is not for everyone," the hospital says, adding to discuss any prescription and non-prescription medication you're taking, along with any risk factors, such as having a pacemaker, being at higher risk for infection, having chronic skin problems and more.

Acupuncturists should be appropriately licensed and certified; a good place to start is the American Academy of Medical Acupuncture. Some states have licensure for acupuncture practice, but others don't require it, and not all acupuncturists are medical doctors. Insurance coverage is also spotty; check with your provider before booking an appointment.