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Swimming just might be the best exercise out there. Here's why.

Experts detail the benefits of swimming, from strengthening your muscles to reducing inflammation and boosting your mental health—and how to get started.



Swimming offers a low-impact exercise with numerous benefits from the health of your muscles and joints to the function of your heart and lungs.

PHOTOGRAPH BY HEATHER PERRY, NAT GEO IMAGE COLLECTION

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While most people appreciate the health advantages that come from running, cycling, or lifting weights, fewer people understand the benefits that come from a good swim, which include muscle toning and strengthening, reduced inflammation, and boosted heart, lung, and mental health.

As it turns out, propelling one's body mass through water activates numerous systems throughout the body and makes the low-impact, high-results nature of the sport second to none. It also explains why Americans make more than 300 million recreational swimming visits a year, resulting in swimming being the fourth most popular recreational activity in the country, per data from the U.S. Centers for Disease Control and Prevention.

"Swimming provides an array of specific benefits such as improved cardiovascular and respiratory fitness, improved muscle strength and endurance, improved lean body mass, lower risk of traumatic injuries such as occurs during high-impact activities, and improved mental health and well-being," says Mitch Lomax, a pulmonologist and exercise physiologist at the University of Portsmouth in the United Kingdom.

The sport has the added advantage of being available to people of all ages and among those with physical limitations - individuals for whom activities like running or cycling could be more challenging.

"Swimming is an activity that can be performed across the age and ability spectrum that exists in other sports," says Lori Sherlock, an exercise physiology professor, Ironman challenger, and aquatic therapy coordinator at West Virginia University School of Medicine.

Good for the heart

Arguably the most important benefit that comes from swimming is that it promotes heart health. Research shows that the practice also improves circulation and cardiovascular efficiency, so one's risk of heart attack and stroke diminishes.

"Swimming is a whole-body rhythmic and dynamic activity that raises your heart rate and reduces your blood pressure effectively," says Hirofumi Tanaka, co-author of multiple swimming-related studies and the director of the Cardiovascular Aging Research Laboratory at the University of Texas at Austin. Research shows it decreases blood pressure, in part, by reducing the hardening or stiffening of blood vessels and by lowering oxidative stress and inflammation levels throughout the body.

(What lifting weights does to your body—and your mind)

Swimming also impacts the relationship between your cardiovascular and respiratory systems as your lungs work harder to meet the demands of a climbing heart rate.

"The hydrostatic pressure of swimming in water paired with the increase in central blood volume, challenges the respiratory system and makes inhaling more challenging than when breathing on land," says Sherlock.

This process increases lung capacity and strengthens the cardiac muscle, "and significantly increases the efficiency of the cardiovascular system," says John Whyte, a practicing physician in Washington DC and the chief medical officer at WebMD.

Good for every muscle in the body

Swimming also has a tremendous impact on the musculoskeletal system as the viscosity and density of water provides resistance against each swim stroke, requiring the use and strengthening of muscles.

"To propel yourself forward, swimming requires the utilization of many major muscle groups of the body," says Heather Massey, a senior lecturer and sports exercise scientist at the University of Portsmouth.

These include core muscles, hip flexors, neck muscles, arm, hand and shoulder muscles, chest and back muscles, plus glutes, and leg and feet muscles. "It's probably safe to assume that if you can name a muscle, it's likely used at some point during swimming," says Lomax.

This unique form of water resistance has the added advantage of muscle strengthening and toning, "without the wear and tear associated with weightlifting," says Whyte. It's also often seen as a plus that one can get more toned muscle without also dealing with the inconvenience of perspiration on one's clothing and across one's face, "which really deters some people from exercising more often," says Christopher Travers, an exercise physiologist at Cleveland Clinic in Ohio.

Studies show that swimming also increases range of motion, reduces joint pain, enhances flexibility, improves posture, and slows down the aging process. It's also been shown to help people with multiple sclerosis, and arthritis, and is good for blood glucose management.

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"Swimming facilitates glucose uptake and usage via insulin-independent mechanisms and improves insulin sensitivity," explains Massey.

Research shows the sport is also good for increasing one's metabolism and that repeating swim strokes and movement can burn a ton of calories. One public health analysis found that a 155-pound person burns 281 calories per hour treading water or swimming at a moderate pace but can burn as many as 704

calories per hour swimming laps freestyle at a vigorous pace. The butterfly stroke burns as many as 774 calories per hour. In these ways, swimming can “aid in weight management goals,” says Matthew Anastasi, a physician and sports medicine specialist at Mayo Clinic in Arizona.

One caveat to this is that swimming in cold water is known to cool down the blood that circulates around the hypothalamus, which controls appetite, thereby making swimmers more likely to snack after exercise than people participating in other sports.

In addition to the effect cold water has on the hypothalamus, the body also must work harder to maintain its core temperature in cold water, "leading to an increased hunger," says Whyte. He says this tendency is something you can be aware of and resist if you're swimming to shed unwanted weight.

Social and mental health benefits

Swimming also affects one's brain and relationships in sometimes unexpected ways. Studies show that moving through water increases blood flow to the brain and causes a release of the hormones serotonin and dopamine. In these ways, swimming ameliorates mood disorders and has even been shown to improve memory function.

"Swimming has also been shown to reduce stress levels, improve negative emotional states, and even decreases symptoms of anxiety and depression, thanks to the meditative nature of rhythmic breathing and water's soothing effect," says Whyte. The practice also helps some people sleep better, likely because of its stress-relieving benefits and physical exertion requirements.

(Do you really need 10,000 steps a day? Here's what the science says.)

Not only is swimming good for your mental health, it's a wonderful way to connect and engage with others in your community, says Anastasi. It can help strengthen relationships closer to home as well. Tanaka points to a study he co-authored analyzing nearly 200 swimmers that shows that people who swim often enjoy more active and satisfying sex lives, and with fewer performance-related issues such as erectile dysfunction and dyspareunia.

Advantages accessible to all

The best part, the exercise scientists say, is that the cardiovascular, neurological, and musculoskeletal benefits that come from swimming aren't limited only to young athletes.

"Swimming is a physical activity that can be done across the age spectrum," says Sherlock. One reason is that the buoyancy of water reduces strain on muscle joints and muscle tissue, which makes the exercise accessible to many people. "Swimming transcends physical limitations so that even individuals who have neurologic, orthopedic, cardiovascular, respiratory or musculoskeletal disorders or diseases can all benefit," she explains.

The density of water also provides support and reduces the risk of falling that exists more commonly in activities like running or playing active land-based sports.

"Because swimming occurs in a hypogravity environment and is a low-impact activity, it reduces the risk of traumatic fractures compared with high-impact activities," says Lomax. This is one reason swimming and hydrotherapy are used to help people heal from an injury or certain medical conditions, explains Travers.

He says the support of water also makes swimming a more accessible exercise solution to people who are overweight or obese - a condition that affects some 4 in 10 Americans.

How to get started

As accessible as swimming is, the sport does have a learning curve as strokes and proper techniques need to be practiced. If you don't know how to swim, "a good place to start is to follow a swimming program at your local YMCA, health club, or community swimming pool," says Anastasi. He says that most of these places offer swimming lessons for beginners, and some also offer programs for people who are advanced or competitive swimmers. Hiring a swim coach is also advisable if more one-on-one help is desired.

Many community facilities also offer freestanding water aerobics classes that don't require one to know how to swim, but still provide the support and many of the benefits that come from exercising in water. Some experts recommend a mix of both swimming and other water-related workouts when starting out. "Performing one or two swim laps followed by water walking or jogging and repeating this sequence may seem more approachable for beginners," says Sherlock.

Because of how physically taxing swimming can be, Lomax recommends incorporating rest days into your exercise schedule once you get going to allow your muscles time to rest and recuperate. "Once you get fitter and more accustomed to the demands of swimming, back-to-back sessions will pose much less of an issue," she says.

Above all, as with any form of exercise, making the experience enjoyable is key to ensuring you stick with it long term. "Swimming is not just an exercise but an enjoyable and refreshing experience that can enhance your physical health, mental well-being, and quality of life," says Whyte. "Dive in, and let the transformative journey begin."