

A FRESH LOOK AT HYDRATION AND **YOGA**



BLUEWATER

A FRESH LOOK AT HYDRATION is a series of fact sheets from Bluewater to help consumers make informed choices about improving their health and wellbeing at work, rest and play by staying properly hydrated.



Playing it safe: Staying properly hydrated to promote health, performance and wellbeing while practicing yoga

Yoga is more popular than at any time during its long history, with over 200 million practitioners. And the predictions are that yoga will continue to grow in popularity in line with modern-day holistic trends in many parts of the world towards healthier and more mindful lifestyles. In the United States, over 15% of the population has already made yoga part of their wellness journey. It is predicted that by 2020, a staggering 55 million American health and fitness enthusiasts of all ages will be leveraging the proclaimed benefits of the ancient practice. traumatic injuries.

Namaste! Rich in spiritual and physical meaning, yoga has existed for at least 5,000 years, according to many historians. But it has undergone ongoing evolution. Modern yoga has evolved from a meditative focus on breath control and mind sharpening to embrace a more physical approach designed to help us desk-bound mortals reconnect with our higher selves, bodies, and minds.

Today yoga practice is used to stretch, move, and detox during 60 - 90-minute classes. The goal to relax and align the mind and body amidst our busy modern lives. Others use yoga to ward off stress or even to battle physical ailments ranging from chronic pain to obesity and heart disease. There

are many different schools of yoga nowadays. Each offering a different way towards improving health, fitness, and mindfulness, including forms such as Hatha, Kundalini, Vinyasa, Bikram and Yin.

Wellness and yoga

Yoga adherents claim the practice can help improve general wellness by relieving stress, encouraging and supporting healthy habits, and improving mental wellbeing and balance. The U.S. National Center for Complementary and Integrative Health (part of the U.S. Department of Health) says research has suggested yoga possibly benefits 'several aspects of wellness, including stress management, mental/emotional health, promoting healthy eating/acti-



Hydrating with ultra pure water from a Bluewater hydration station at the world's largest annual outdoor yoga festival in Hong Kong.

vity habits, sleep and balance'. NIH also notes studies of yoga for low-back pain and neck pain have had promising results - and that there is evidence yoga may be an excellent way to help lose weight¹. The government body says yoga is generally considered a safe form of physical activity but should be learned under the guidance of a qualified instructor to reduce chances of getting hurt. They also warn that Bikram yoga does bring unique risks related to overheating and dehydration.

Top fitness trend

Yoga is one of the top fitness trends of this decade. Enjoyed by people of all ages seeking to improve their health, mental performance, and body's flexibility. And there's a style to fit everyone regardless of fitness level. But there is a problem common to many yoga practitioners: not hydrating sufficiently. Several studies have shown a large proportion of physically active adults are dehydrated when they begin their exercise period and fail to hydrate adequately with water during workout sessions to replace lost fluids. The consequences- from headaches to nausea - can also be exacerbated when participating in a hot yoga session when temperatures can be as high as 40.5 Celsius (105°F)².

To hydrate or not to hydrate

What do yoga teachings say about staying hydrated? The answer is not straightforward. There are yogi masters who maintain one should not drink water during the practices. Why not? Because they believe that if you drink cold water, the inner warmth of the body, or so-called 'ushna,' will fall rapidly, causing reactions such as excess mucus, allergic reactions and even sparking a cold³.

Because of this belief, many yoga teachers discourage drinking water during a class. In 2017 Yoga Journal quoted a Rodney Yee, the codirector of Piedmont Yoga Studio in Oakland, California, as saying drinking water during asana practice may affect the drinker's subtle energies. According to the magazine, he told them: "The health industry has done a great job encouraging people to hydrate, which is important ... The problem is that water cools the system down and puts out the subtle fires".

American sports medicine specialist Dr. Angie Mueller is not so judgemental, despite being a lifelong yoga participant. With a Doctorate in Physical Therapy from Regis University and a Bachelor's in Health and Exercise Science with a concentration in Sports Medicine from Colorado State University, Dr. Mueller believes people should drink before, during and after their yoga sessions 'to get the most out of the yoga practice.'

Before, during and after

"How much water to drink before, during or after a yoga class varies from one individual to another," Dr. Angie said. She says that while practicing yoga is incredible for many wellbeing reasons, dehydrating isn't healthy.

"Your body needs to be hydrated to achieve optimal physical and mental performance period. The latest science indicates that losing just a few percentages of your body weight in fluid can decrease performance substantially. Water also helps muscles contract and relax appropriately, and provides lubrication the joints and tendons.

"Dehydration can increase the risk of injury during a yoga class, and can also cause nausea, fatigue, headaches. But

when you are in an optimally hydrated state, it is amazing how much you can push the limits of your body," Dr. Mueller points out.

A 2017 research paper on fluid intake during hot yoga participation, published in the International Journal of Exercise Science, adds considerable weight to Dr. Mueller's reasoning about the need to stay properly hydrated.

Low hydration awareness

The researchers found that 24% of participants arrived at their yoga class/session under-hydrated to varying degrees. They said this suggests that "individual education and pre-exercise fluid recommendations are necessary for the importance of minimizing physiological consequences such as an increase in core temperature and heart rate and reduced heat tolerance and sweat rate that can occur during activity due to dehydration."

"The study discovered individual results varied considerably, which supported previous recommendations that hydration guidelines must be personalized and that individual education would be most beneficial," said Dr. Mueller. She added that the latest science reveals that not one size fits all when it comes to meeting a body's hydration needs.

Measuring the water content of your body is not as difficult as it may sound. A technology called bioelectrical impedance analysis (BIA) has been integrated into widely available scales that can quickly 'measure' the total amount of fluid in the body. As over half of the body consists of water helping to regulate body temperature and eliminate waste, it is evident that proper hydration is key to maintaining concentration, performance, and general wellbeing.



Facts about muscle pain

Sore, stiff muscles are not unusual during or after a tough workout due to overuse, tension, stress, and injury.

Intense exercise can cause micro-tears in the tissue of the muscles that leads to what is known as delayed muscle onset soreness or DOMS.

So long as it's not an injury, the good news is that your muscles generally get used to extra levels of workout, which means the chances of soreness gradually decrease.

Your first line of defense is to stretch gently before every workout for at least ten minutes

Heat increases circulation, so keep the body at a comfortably warm temperature before and during the yoga session... but, remember, after the training session to cool any strained muscle areas with ice or a cold towel as heat can exacerbate inflammation

Hydrate properly before, during and after the yoga session

At the end of every session, stretch, stretch, stretch



Yoga your way, but don't forget to hydrate

There many different types of yoga ranging from demanding physical classes to more relaxing, meditative styles. Yoga, as practiced in the western world, places emphasis on physical postures (asanas), breathing techniques (pranayama), and meditation (dyana). Here are some of the more popular styles...

Hatha yoga

The oldest form of yoga, Hatha combines breathing exercises with various ancient postures. The goal is to bring peace to both the mind and body, preparing the student for more profound spiritual practices such as meditation. Hatha yoga is often the entry point for people starting their yoga journey.

Lyengar yoga

Lyengar yoga is a gentle style that focuses on alignment and precise movements with postures held for a long time while controlling the breath. It is often recommended to help rehabilitate people with physical injuries.

Kundalini yoga

Part spiritual and physical, Kundalini is pretty intense as it works your core and breathing using fast-changing postures. Chanting and meditation are frequently an integral part of a class. Classes also consist of a specific set of exercises used to generate, organize,

and deliver energy to particular areas of your body with the end goal of greater intuitive awareness.

Vinyasa yoga

Vinyasa is a style characterized by connecting a series of creative postures together, so that you move from one to the other seamlessly, coordinated with your breath. It is commonly referred to as "flow" or "power" yoga, and no two classes are ever the same.

Bikram yoga

Held in sauna-like heat, the vibe of Bikram yoga is discipline. Classes are always 90 minutes long, using the same sequence of 26 postures and 2 breathing exercises, repeated twice, in a room of 105 degrees Fahrenheit.

Yin yoga

A slow-paced style that consists of a series of long-held, passive floor poses that mainly work the connective tissues of the lower body- hips, low back, and legs. The poses are held for up to five minutes or longer.



The United Nations has marked June 21 as International Yoga Day, a celebration held every year around the world to incorporate yoga and meditation into humanity.





Hydrate before, during and after

Dr. Mueller offers four smart yet straightforward strategies to help stay hydrated before during and after a yoga session.

- Pre-hydrate before each session by drinking about 20% of your body weight in ounces of water several hours before the class. Pre-hydration is extremely important for temperature regulation during a hot yoga class. If the body does not have enough water, it won't be able to sweat as much to meet the need to regulate its temperature in excessive heat and during strenuous exercise.
- Sip room temperature water 3-4 times throughout the yoga session.
- After the session, drink another 20% of your body weight in ounces of water
- Add a pinch of sea salt, or your favorite electrolyte concentrate, to your water to decrease your risk of muscle cramps and to help aid in replacing the minerals you lose from sweating.

Sources:

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About Bluewater

Bluewater is a world leader innovating, manufacturing, and commercializing water purification technologies and solutions for residential, business and public use. Bluewater harnesses patented, second-generation reverse osmosis technology to remove pollutants from water, including lead, bacteria, pesticides, medical residues, chlorine, microplastic particles and limescale.

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