

What should be the pH value of drinking water?

STAR HEALTH DESK

Remember the time in science class when you did that experiment with litmus paper and it turned red when you put it on a lemon and blue in soapy water? That was probably your first experiment into the wondrous science of pH.

The indicator for acidity and alkalinity is known as the pH value. A pH value of 7 means a substance is neutral. The lower value indicates acidity, and a higher value is a sign of alkalinity. To better understand the range in pH, take a look at these examples: apple juice 3, orange juice 3.5, coffee 5.5, milk 6.2, baking soda 8.5, soapy water 10, bleach 12.

So, what does pH mean for water?

Basically, the pH value is a good indicator of whether water is hard or soft. The pH of pure water is 7. In general, water with a pH lower than 7 is considered acidic, and with a pH greater than 7 is considered basic. The normal range for pH in surface water systems is 6.5 to 8.5, and the pH range for groundwater systems is between 6 to 8.5. Alkalinity is a measure of the capacity of the water to resist a



change in pH that would tend to make the water more acidic. The measurement of alkalinity and pH is needed to determine the corrosiveness of the water. **Effects** Consuming excessively acidic or alkaline water is harmful, warns the Environmental Protection

Agency (EPA). Drinking water must have a pH value of 6.5-8.5 to fall within EPA standards, and they further note that even within the acceptable pH range, slightly high- or low-pH water can be unappealing for several reasons. High-pH water has a slippery feel, tastes a bit like baking soda,

and may leave deposits on fixtures, according to the EPA website. Low-pH water, on the other hand, may have a bitter or metallic taste, and may contribute to fixture corrosion. **Expert insight** Wilkes University points out a further problem associated with

drinking water and pH: High-pH water is often hard. They note that hard water "does not pose a health risk, but can cause aesthetic problems." Among problems associated with hard water, they list formation of scale on fixtures, a bitter flavor, difficulty getting soaps to lather, and decreased water-heater efficiency. They suggest that water can be softened with ion-exchange water-softening devices.

According to a Wilkes University study, the association of pH with atmospheric gases and temperature is the primary reason why water samples should be tested on a regular basis. The study says that the pH value of the water is not a measure of the strength of the acidic or basic solution, and alone cannot provide a full picture of the characteristics or limitations with the water supply.

While the ideal pH level of drinking water should be between 6-8.5, the human body maintains pH equilibrium on a constant basis and will not be affected by water consumption. For example, our stomachs have a naturally low pH level of 2 which is a beneficial acidity that helps us with food digestion.

HAVE A NICE DAY

Halitosis – please don't ignore



Bad breath is medically known as *halitosis*. This is one of the most embarrassing nightmares and frequently unnoticed situations experienced by millions of persons.

The main reason is very interesting! As in most cases, a sufferer is totally unaware that s/he has bad breath and his/her surrounding associates are irritated. Well, it can result mainly from poor oral hygiene or dental health habits and may be a sign of other health problems. In simple, if you don't brush/floss teeth daily two times, food particles can remain in mouth promoting bacterial growth between teeth around the gums and on the tongue — ultimately causes halitosis.

This can also be made worse by the types of foods like onion, garlic, spicy foods, some fish etc. and other unhealthy lifestyle habits. Brushing and flossing — even mouthwash — merely covers up the strong odours. The odour will not go away completely until the foods have passed through your body.

There are other different causes of bad breath or halitosis. It could be due to a sinus infection or a sluggish/infections of the digestive system. Recently scientists have found an astonishing result regarding breath test. A quick breath check can save one not only from more than just an awkward social state, it can save a life as well. According to a study published in the journal Gut, the latest breath test technology can detect stomach cancer in its earliest stages. Nevertheless, while poor dental hygiene accounts for most cases of halitosis, bad breath can sometimes signal other underlying medical conditions.

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HEALTH bulletin

Would you like to get rid of jet lag?

DR GOLAM NABI

Jet lag, also called jet lag disorder, is a temporary sleep problem that can affect anyone who quickly travels across multiple time zones.

Your body has its own internal clock, or circadian rhythms, that signals the body when to stay awake and when to sleep. Jet lag occurs because your body's clock is still following your original time zone, instead of the time zone where you have traveled. The more time zones crossed, the more likely you are to experience jet lag.

Jet lag can cause daytime fatigue, an unpleasant feeling, difficulty staying alert and gastrointestinal problems. Jet lag is temporary, but it can significantly reduce your daily activities. Fortunately there are steps you can take to help prevent or minimise jet lag.

Symptoms of jet lag can vary. You may experience only one symptom or you may have more than one.

A disruption to your circadian rhythms

Jet lag can occur anytime you cross two or more time zones. Jet lag occurs because crossing multiple time zones puts your circadian rhythms, which regulate your sleep-wake cycle, out of sync with the time in your new locale.

For example, if you leave Dhaka on a flight at 4 pm on Tuesday, and arrive in London at 7 am Wednesday, your internal clock still thinks its 1



am in Dhaka. That means you are ready for bed just as British are waking up. And because it takes a few days for your body to adjust, your sleep-wake cycle, along with most other body functions, such as hunger and bowel habits, remains out of step with the rest of London. **The influence of sunlight** A key influence on your internal clock is sunlight. That is because light influences the regulation of melatonin, a hormone that helps synchronise cells throughout the body. Certain cells in the tissue at the back of your eye (retina) transmit the light signals to an area of your brain called the hypothalamus. At night, when the light signal is low, the hypothalamus tells the pineal gland, a small organ situated in the brain, to release melatonin. During daylight hours, the opposite occurs, and the pineal gland

produces very little melatonin.

You may be able to ease your adjustment to your new time zone by exposing yourself to daylight in the new time zone so long as the timing of light is done properly.

Medications

Sleeping pills like Benzodiazepines (such as Diazepam) may help you sleep during your flight and for several nights afterward. Side effects are uncommon. Although these medications appear to help sleep duration and quality, they may not lessen daytime symptoms of jet lag. These medications are usually only recommended for people who have not been helped by other treatments.

Light therapy

Your body's internal clock is influenced by exposure to sunlight, among other factors. When you travel across time zones, your body must adjust to a new daylight schedule and reset, allowing you to fall asleep and be awake at the appropriate times. Light therapy can help ease that transition. It involves exposing your eyes to an artificial bright light or lamp that simulates sunlight for a specific and regular amount of time during the time when you are meant to be awake.

So try these methods after your long haul of flight and get rid of the jet lag.

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5 foods to eat for healthy, glowing skin

You probably think about how nutrition affects your internal health and your weight, but eating the right foods can also improve the quality of your skin. "You can look at food as the raw materials for a factory," says Ian Koo, a naturopathic doctor based in Mississauga, Ont. "The better the quality of the raw materials we have to start with, the greater the chance that we'll end up with a good durable product."

Here are what to add to your diet to improve the health of your skin.

Tomatoes: Eating any tomato-based foods such as sauce and tomato juice may help clear up acne. Lycopene (the phytochemical that makes tomatoes red) may lower an acne-promoting hormone.

Green tea: Green tea fights acne based on its ability to lower levels of an acne-producing hormone called dihydrotestosterone (DHT). This power drink is also packed with antioxidants, which will help your skin look younger and healthier overall.

Berries: Deeply coloured berries such as blueberries and cherries are loaded with antioxidants, which help your body fight off blemishes.

Fish and seafood: An international study published in the Journal of the American College of Nutrition found that people who ate diets high in fish and seafood had less skin wrinkling. That might be because the omega-3 fatty acids found in fish and seafood slow down the wrinkling process. Furthermore, omega-3 fatty acids have mood-regulating benefits, which can help with the stress component of having acne.

Brown Rice: Check the packaging of your skin products and you are likely to see ceramides in the list of ingredients. These lipid molecules, which help your skin maintain its moisture, can also be found in foods such as brown rice. When you eat naturally occurring ceramides, they get incorporated into the outer layer of your skin and help it maintain its hydration.

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Weight loss surgery cures half of patients with type-2 diabetes, for at least five years, a study suggests.

The trial, on 60 people, published in the Lancet, found none of those with type 2 had been cured by medication and diet alone.

The surgery improves symptoms both through weight loss and by changing the way the gut functions.

The team, at King's College London and the Universita Cattolica in Rome, compared standard drug therapy with surgery to rewire the digestive tract. The operations reduced the size of the stomach and left less of the intestines exposed to food.

While some of those patients still had type-2 diabetes, they were easily keeping their sugar levels to recommended levels.

The patients who had surgery were also less likely to have heart problems, a common side-effect of uncontrolled diabetes, and reported improved quality of life.

The results were better two years after surgery. However, some patients relapsed in the past three years. The surgeons say there still needs to be continual monitoring of blood sugar levels even after the operation.

In Bangladesh 2 crore people suffer from kidney ailments

Care For Your Kidneys

- Monitor blood pressure & cholesterol
- Monitor blood glucose
- Control weight
- Don't smoke
- Follow a healthful diet
- Don't overuse painkiller
- Exercise regularly



Common Habits That Damage The Kidneys

- Not emptying your bladder early
- Lack of drinking enough water
- Taking too much salt
- Not getting proper nutrition through diet
- Consuming too much soft drinks

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