

improving health, improving lives

Your monthly dose of advice on healthy living

Positive Pulse

August 2020 H2O: Part 1: Water Wellness



We're back again! This is part one of H2O, focusing on water and wellness. Water is a part of us and many aspects of our everyday lives. It keeps us well but it can also be dangerous. What are water dangers, you might ask? Here's a few to keep in mind, and stay tuned for Part 2 next week!

- If you lose too much water while sweating in hot weather, you run the risk of it leading to a heat related illness.
- It's important to know the dangers of standing water, including bugs and bacteria.
- Be sure to practice safe swimming techniques when in pools or at the beach.

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every Tuesday! You can find registration links and recordings here.

We are also holding Healthy Lifestyles Project: LIVE events, every Wednesday at 11AM. <u>Register here.</u>



Heat and Sweating

Losing Water in the Body

- The human body regulates its temperature through sweating.
- Too much sweating can lead to the body losing an excessive amount of water and salt.
- When exposed to more heat than it can handle, heat exhaustion and heat stroke can occur, leading to delirium, organ damage and even death.
- In 2018, 162 people died in the U.S. from exposure to excessive heat, according to <u>Injury Facts</u>.
- People most at risk include:
 - Infants and young children, especially if left in hot cars
 - People 65 and older
 - People who are ill, have chronic health conditions or are on certain medications
 - People who are overweight

Heat Exhaustion

- According to the <u>free NSC First Aid Quick Reference app</u>, signs and symptoms include:
 - Sweating
 - Pale, ashen or moist skin
 - Muscle cramps (especially for those working or exercising outdoors in high temperatures)
 - Fatigue, weakness or exhaustion
 - Headache, dizziness or fainting
 - Nausea or vomiting
 - Rapid heart rate

How to Treat Heat Exhaustion

- Uncontrolled heat exhaustion can evolve into heat stroke, so make sure to treat victims:
 - Move victims to a shaded or air-conditioned area
 - Give water or other cool, nonalcoholic beverages
 - Apply wet towels, or have victims take a cool shower

Heat Stroke

- Seek medical help immediately if someone is suffering from heat stroke. Signs include:
 - Body temperature above 103 degrees

- Skin that is flushed, dry and hot to the touch; sweating has usually stopped
- Rapid breathing
- Headache, dizziness, confusion or other signs of altered mental status
- Irrational or belligerent behavior
- Convulsions or unresponsiveness
- Immediately take action:
 - Call 911
 - Move the victim to a cool place
 - Remove unnecessary clothing
 - Immediately cool the victim, preferably by immersing up to the neck in cold water (with the help of a second rescuer)
 - If immersion in cold water is not possible, place the victim in a cold shower or move to a cool area and cover as much of the body as possible with cold, wet towels
 - Keep cooling until body temperature drops to 101 degrees
 - Monitor the victim's breathing and be ready to give CPR if needed

When Treating Heat- Related Illness:

- DO NOT force the victim to drink liquids.
- DO NOT apply rubbing alcohol to the skin.
- DO NOT allow victims to take pain relievers or salt tablets.

Prevention

- The best way to avoid a heat-related illness is to limit exposure outdoors during hot days.
- According to the Centers for Disease Control and Prevention:
 - Air conditioning is the best way to cool off.
 - Drink fluids, even if you don't feel thirsty, and avoid alcohol.
 - Wear loose, lightweight clothing and a hat.
 - Replace salt lost from sweating by drinking fruit juice or sports drinks.
 - Avoid spending time outdoors during the hottest part of the day, from 11 a.m. to 3 p.m.
 - Wear sunscreen; sunburn affects the body's ability to cool itself.
 - Pace yourself when you run or otherwise exert your body.

SOURCE: https://www.nsc.org/home-safety/tools-resources/seasonal-safety/summer/heat



Standing Water

What is Standing Water?

- Standing water is stagnant water that is not flowing and has no constant fresh source.
- This type of water can pool after watering your garden on a warm spring day or it could be the water that sits in your bird bath or planting pots.

Water and Bug Breeding

- Many insects like to lay eggs in and around standing water including mosquitoes, roaches, carpenter ants, and termites.
- Mosquitoes are known to carry diseases such as the West Nile and Zika viruses.
- Studies show that female mosquitoes prefer to lay eggs in water that collects or is stored in manmade containers.
- Eggs stick to containers like glue and remain attached until they are scrubbed off.
 - The eggs can survive when they dry out-up to 8 months.
 - When it rains or water covers the eggs, they hatch and become adults in about a week.

Bug Prevention

- To prevent mosquito bites, use Environmental Protection Agency-registered insect repellant with DEET and wear long-sleeve shirts and long pants.
- Read product labels when using insect repellant and apply as directed.
- Do not leave doors or windows propped open.
- Once a week, scrub or empty planters, birdbaths, vases, flowerpot saucers, or anything else that may have standing water.
- Use EPA-approved indoor and outdoor flying insect spray or foggers.
- Turn on air conditioning; mosquitoes prefer warm, damp and dark spaces.

Avoid Floodwater

- Floodwaters contain many things that may harm health. We don't know exactly what is in floodwater at any given point in time. Floodwater can contain:
 - Downed power lines
 - Human and livestock waste
 - Household, medical, and industrial hazardous waste (chemical, biological, and radiological)
 - Coal ash waste that can contain carcinogenic compounds such as arsenic, chromium, and mercury
 - Other contaminants that can lead to illness
 - Physical objects such as lumber, vehicles, and debris
 - Wild or stray animals such as rodents and snakes
 - Exposure to contaminated floodwater can cause:
 - Wound infections
 - Skin rash
 - Gastrointestinal illness
 - Tetanus
 - Leptospirosis (not common)
- If you come in contact with floodwater:
 - Wash the area with soap and clean water as soon as possible. If you don't have soap or water, use alcohol-based wipes or sanitizer.
 - Take care of wounds and seek medical attention if necessary.
 - Wash clothes contaminated with flood or sewage water in hot water and detergent before reusing them.
- If you must enter floodwater, wear rubber boots, rubber gloves, and goggles.

SOURCE:

https://www.nsc.org/home-safety/tools-resources/seasonal-safety/summer/zika https://www.bredapest.com/news/how-does-standing-water-attract-pests https://www.cdc.gov/healthywater/emergency/extreme-weather/floods-standingwater.html



Safety



Swimmer Safety

- Don't go in the water unless you know how to swim; swim lessons are available for all ages.
- Never swim alone.
- Learn CPR and rescue techniques.
- Make sure the body of water matches your skill level; swimming in a pool is much different than swimming in a lake or river, where more strength is needed to handle currents.
- If you do get caught in a current, don't try to fight it; stay calm and float with it, or swim parallel to the shore until you can swim free.
- Swim in areas supervised by a lifeguard.
- Don't push or jump on others.
- Don't dive in unfamiliar areas.
- Never drink alcohol when swimming; alcohol is involved in about half of all male teen drownings, according to <u>KidsHealth.org.</u>





Become water competent to be safer on, in, or near water this summer

3 Elements of Water Competence

Why is water competence important? Drowning is a major cause of accidental death, partly because many people underestimate the risks and overestimate their ability, or that of their children, in water.





For More Details on Becoming Water Competent

Visit watersafetyusa.org



Keep Your Pets safe too!



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The Horizon Foundation for New Jersey

The <u>Healthy Lifestyles Project (HLP</u>) is a program of The Arc of New Jersey and receives funding through a grant awarded by <u>The Horizon Foundation for New</u> <u>Jersey</u>.

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August 2020 H₂O: Part 2: Water Quality



This is part two of H_2O , focusing on water quality. Water is a part of us and many aspects of our everyday lives, so the quality of our water is very important!

- If you keep your body hydrated, you are more likely to stay healthy.
- Water Pollution affects much of the water on our planet and can have terrible consequences in many areas.
- You can help clean your local water systems with a few simple steps.

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Benefits of Water

Lubricating Joints

- Cartilage, found in joints and the disks of the spine, contains around 80 percent water.
- Long-term dehydration can reduce the joints' shock-absorbing ability, leading to joint pain.

Mouth Health

- Saliva helps us digest our food and keeps the mouth, nose, and eyes moist.
- This prevents friction and damage.
- Drinking water also keeps the mouth clean.
- Consumed instead of sweetened beverages, water can also reduce tooth decay.

Boost Skin Health and Beauty

- With dehydration, the skin can become more vulnerable to skin disorders and premature wrinkling.
- Some of the signs of dehydrated skin to look out for are itchy skin, dullness, dark circles under the eyes and the increased appearance of wrinkles.

Brain Function

- Dehydration can affect brain structure and function.
- It is also involved in the production of hormones and neurotransmitters.
- Prolonged dehydration can lead to problems with thinking and reasoning.

Body Systems

- Dehydration can lead to digestive problems, constipation, and an overly acidic stomach. This increases the risk of heartburn and stomach ulcers.
- Water is needed in the processes of sweating and removal of urine and feces.
- A lack of water can cause blood to become thicker, increasing blood pressure.
- When dehydrated, airways are restricted by the body in an effort to minimize water loss. This can make asthma and allergies worse.
- The kidneys regulate fluid in the body. Insufficient water can lead to kidney stones and other problems.

Dehydration During Exercise

- Dehydration during exercise may hinder performance.
- Some scientists have proposed that consuming more water might enhance performance during strenuous activity.
- More research is needed to confirm this, but one review found that dehydration reduces performance in activities lasting longer than 30 minutes.

Weight Loss

- Water may also help with weight loss, if it is consumed instead of sweetened juices and sodas.
- "Preloading" with water before meals can help prevent overeating by creating a sense of fullness.

Reduce the Chance of a Hangover

- Unsweetened soda water with ice and lemon alternated with alcoholic drinks can help prevent overconsumption of alcohol.
- Be sure to focus on staying hydrated when consuming alcohol.

SOURCE: https://www.medicalnewstoday.com/articles/290814



Water Pollution

What Is Water Pollution?

• Water pollution occurs when harmful substances—often chemicals or microorganisms—contaminate a stream, river, lake, ocean, aquifer, or other body of water, degrading water quality and rendering it toxic to humans or the environment.

What Are the Causes of Water Pollution?

- Water is uniquely vulnerable to pollution.
- Known as a "universal solvent," water is able to dissolve more substances than any other liquid on earth.
- Toxic substances from farms, towns, and factories readily dissolve into and mix with it, causing water pollution.

Groundwater

- When rain falls and seeps deep into the earth, filling the cracks, crevices, and porous spaces of an aquifer (basically an underground storehouse of water), it becomes groundwater—one of our least visible but most important natural resources.
- Nearly 40 percent of Americans rely on groundwater, pumped to the earth's surface, for drinking water.
- Groundwater gets polluted when contaminants—from pesticides and fertilizers to waste leached from landfills and septic systems—make their way into an aquifer, rendering it unsafe for human use.
- Once polluted, an aquifer may be unusable for decades, or even thousands of years.
- Groundwater can also spread contamination far from the original polluting source as it seeps into streams, lakes, and oceans.

Surface water

• Covering about 70 percent of the earth, surface water is what fills our oceans, lakes, rivers, and all those other blue bits on the world map.

- Surface water from freshwater sources (that is, from sources other than the ocean) accounts for more than 60 percent of the water delivered to American homes.
- According to the most recent surveys on national water quality from the U.S. Environmental Protection Agency, nearly half of our rivers and streams and more than one-third of our lakes are polluted and unfit for swimming, fishing, and drinking.
- Nutrient pollution, which includes nitrates and phosphates, is the leading type of contamination in these freshwater sources. While plants and animals need these nutrients to grow, they have become a major pollutant due to farm waste and fertilizer runoff.
- Municipal and industrial waste discharges contribute their fair share of toxins as well. There's also all the random junk that industry and individuals dump directly into waterways.

Ocean Water

- Eighty percent of ocean pollution (also called marine pollution) originates on land —whether along the coast or far inland.
- Contaminants such as chemicals, nutrients, and heavy metals are carried from farms, factories, and cities by streams and rivers into our bays and estuaries; from there they travel out to sea.
- Marine debris—particularly plastic—is blown in by the wind or washed in via storm drains and sewers.
- Our seas are also sometimes spoiled by oil spills and leaks—big and small—and are consistently soaking up carbon pollution from the air. The ocean absorbs as much as a quarter of man-made carbon emissions.



What are the impacts of water pollution?

Urban and domestic use

Increased water treatment and inspection costs, maintenance costs from scouring and premature ageing of infrastructure, increased wastewater treatment costs with implementation of more strict regulations. Emergency and clean-up costs from spills/accidents.

Human health



Polluted water is the world's largest health risk, and continues to threaten both quality of life and public health.

Associated with this are health service costs, loss life expectancy, and emergency health costs associated with major pollution events.

Social values and tourism



Prohibition from

recreational use (e.g. swimming, fishing, seafood gathering), beach closure, impacts on aesthetics, cultural and spiritual values. Losses in fishing, boating, rafting and swimming activities to other tourism activities or to other ventures with superior water quality.

Commercial fisheries

Direct and indirect fish kill, contamination of shellfish.



Ecosystem health

Damage to freshwater and marine ecosystems (e.g. fish kill, invertebrates, benthic fauna, flora, habitat degradation) and loss of ecosystem services, which may require investment in additional or different grey infrastructure alternatives to replicate these services.

Industrial productivity

Exclusion of contaminated water for industrial use results in increasing water scarcity. Scouring of infrastructure, and clean-up costs from spills/accidents.

Agricultural productivity



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increasing water scarcity. Irrigation with contaminated water causes damage to, and reduced productivity of, pasture and crops, soil contamination, impacts to livestock health and production, and scouring of infrastructure.

Property values

Waterfront property values can decline because of unsightly pollution and odour.

Diffuse Pollution, Degraded Waters: Emerging Policy Solutions http://oe.cd/diffusepollution

SOURCE: https://www.nrdc.org/stories/water-pollution-everything-you-need-know#categories



How to Help





Limit Antibacterial Soaps

- Use regular soap and water when it will do the trick.
- Much of the antibacterial soaps contain a registered pesticide that is known to harm marine life.

Watch What Goes Down the Drain

- Don't flush unwanted or out-of-date medications down the toilet or drain.
- Don't put anything but water down storm drains because they carry water to local waterways.
- Choose nontoxic household products when possible.

Stop That Leak

- Fix leaks that drop from cars as quickly as possible.
- Put liners in your driveway to collect oil and other materials.

Outdoor Spaces

- Avoid using pesticides or chemical fertilizers.
- Pick up after pets.
- Avoid unnecessary paving on your property.

Check Your Local Water

- If you have a private well make sure it is tested and cleaned regularly. There can be bacteria build up in wells.
- Read your local water quality report so you know what the water quality is in your area.
- Gather a group of family, friends, and neighbors and volunteer to clean a local water source. You could bring a picnic and hold a contest to see who can clean up the most trash and debris, offering a prize to the winning team!



SOURCE: <u>https://www.daysoftheyear.com/days/water-quality-month/</u> <u>https://oceanservice.noaa.gov/ocean/help-our-ocean.html</u>

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