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Clean Water Tips and Facts!



Water is an amazing resource! Here's your chance to soak up some interesting statistics.

1. Of all the earth's water, 97% is salt water found in oceans and seas.¹²
2. Only 1% of the earth's water is available for drinking water. Two percent of fresh water is currently frozen.¹²
3. About two thirds of the human body is water. Some parts of the body contain more water than others. For example, 70% of your skin is water.¹²
4. The first municipal water filtration works opened in Paisley, Scotland in 1832.¹²
5. More than 79,000 tons of chlorine is used per year in the United States and Canada to treat water.¹²
6. There are more than 53,000 community water systems providing water to the public in the United States.¹²
7. Public water suppliers process 38 billion gallons of water per day for domestic and public use.¹²
8. Approximately 1.8 million miles of distribution mains carry water in the United States and Canada.¹²
9. About 800,000 water wells are drilled each year in the United States for domestic, farming, commercial, and water testing purposes.¹²
10. Typically, households consume approximately 30% of their water for outdoor use, such as watering the lawn. Inside, toilets use the most water, with an average of 27 gallons per person per day.¹²
11. In 1974, Congress passed the Safe Drinking Water Act to ensure that drinking water is safe for human consumption. The Act requires public water systems to monitor and treat drinking water for safety.¹²
12. More than 13 million households get their water from their own private wells and are responsible for treating and pumping the water themselves.¹²
13. The average daily requirement for fresh water in the United States is about 40 billion gallons a day, with about 300 billion gallons used untreated for agriculture and commercial purposes.¹²
14. You can survive about a month without food, but only 5 to 7 days without water.¹²
15. Total water use (both indoor and outdoor) in a typical single-family home is 101 gallons per capita per day.¹²
16. The average five-minute shower takes between 15 to 25 gallons of water.¹²
17. You can refill an 8 oz glass of tap water approximately 15,000 times for the same cost as a six-pack of soda.¹²
18. An automatic dishwasher uses approximately 9 to 12 gallons of water while hand-washing dishes can use up to 20 gallons.¹²
19. If every household in America had a faucet that dripped once each second, 928 million gallons of water a day would leak away.¹²
20. One gallon of water weighs approximately 8 ½ pounds.¹²
21. 300 million gallons of water are needed to produce a single day's supply of U.S. newsprint.¹²
22. A person should consume 2 ½ quarts of water per day (from all sources of water, food, etc.) to maintain health.¹²



23. The main sources of groundwater pollution are naturally occurring toxic compounds- arsenic, radon and carcinogenic radionuclide-that enter aquifers after rain percolates through decaying rock and ineffective septic systems.
24. The EPA's Safe Drinking Water Act includes safe tap water standards for over 80 contaminants. With these standards in place, the EPA considers American tap water one of the safest in the world.¹³
25. While filtration and disinfection make water safe for consumption, they do not protect against unpleasant taste or odor. Home treatment devices often improve the taste and odor of tap water.¹³
26. Home treatment devices can remove lead, which has been linked to serious neurological and reproductive disorders in humans. Lead can leach into tap water from the pipes and plumbing fixtures of older houses.¹³
27. The U.S. has fresh water resources totaling about 660 trillion gallons and Americans tap into about 341 billion gallons of those resources every day.¹⁴
28. Of the water withdrawn in the U.S., only 1% is used for drinking water. About 41% is used for agriculture, 39% for hydroelectric power, 6% for industrial use and 6% for household purposes.¹⁴
29. There are 54,000 community water systems in the U.S. They provide about 90% of Americans with tap water.¹⁴
30. About 3,000 of community water systems provide more than 75% of the nation's water.¹⁴
31. Water utilities monitor for more than 100 contaminants on a regular basis.¹⁴
32. More than 94% of American water utilities are in full compliance with health-based federal regulations annually.¹⁴
33. Bottled water can cost up to up to 1,000 times more than municipal drinking water.¹⁵
34. The US Food and Drug Administration (FDA) requires bottled water quality standards to be equal to those of the US Environmental Protection Agency for tap water, but the quality of the finished product is not government-monitored.¹⁵
35. Public health officials issue "A Boil Water Order" when there is a concern that a disaster or other event has the potential to contaminate the water supply. Boiling your water is an effective way to ensure that your water is safe to drink.¹⁵
36. The major source of water pollution is polluted runoff from rain events.¹⁵
37. Simple kits are available to test for hardness and some chemicals like chlorine and lead, but a thorough analysis is not possible.¹⁵
38. The four most common reasons for bad tasting or smelling water are:
 - Chlorine added to water to kill germs
 - A rotten egg odor caused by non-toxic (in small amounts), smelly chemical- hydrogen sulfide - dissolved in the water;
 - Algae bacteria, and tiny fungi that grow in surface water and give off nontoxic, smelly chemicals
 - Metallic tastes that come from copper that has dissolved from copper pipe and from iron from rusting on iron pipes. Copper can cause short-term health problems like diarrhea and cramping, while iron has no affect on health.¹⁵



In Home Pollution/ Contamination Prevention

1. Investigate your home to identify products that could contaminate water.⁴
2. Test your drinking water periodically with a home test kit. These can be purchased online. Simply type “drinking water test kit” into a search engine.²
3. You should also test for lead in your drinking water.¹
4. If on well water, have your drinking water tested periodically by your local or state health department.¹
5. Periodically check with the EPA for water related health advisories in your area. Go to <http://www.epa.gov/waterscience/criteria/drinking/> or call the Safe Drinking Water Hotline: 1-800-426-4791.¹
6. Know the signs of contaminants in your drinking water.¹
7. Dispose of chemicals properly. Do not pour them down a drain; save unused chemical products for a hazardous waste collection event, OR use them up!¹
8. Be careful not to put harmful chemicals into your septic tank.²
9. Keep and read the labels on chemical products in your home.¹
10. Keep chemical products in a locked cabinet, out of reach of children and pets.¹
11. Buy environmentally friendly products and alternatives, free of harmful chemicals (avoid chlorine, phosphates and solvents).¹¹
12. Use natural cleaning substances, such as citrus-based cleaners, when possible.¹
13. Contact your community leaders about sponsoring a hazardous waste collection event.⁴
14. Dry out unused paint or adhesives rather than disposing of them in liquid form. Paint old cardboard or use kitty litter for absorption.¹
15. Be sure to recycle used batteries and tires. Both contain highly hazardous substances.¹
16. Avoid boiling water during nitrate warnings – this only exacerbates the problem.¹
17. If you have lead water pipes, have them replaced. If this is impossible, use only cold water for drinking and cooking as warm water carries more lead.¹
18. Use liquid detergents rather than powder form; liquids contain less heavy metals.¹
19. When using cleaning products or detergents, use the lowest amount recommended on the label.¹

Outdoor Pollution Prevention

Lawn and Garden Chemicals

1. Test your soil to determine specific fertilization and pesticide needs.²
2. Design your lawn with hardy, native plants that require little or no water or chemicals.²
3. Avoid overuse of pesticides and fertilizers—use only the amount needed and apply only when necessary.⁶

4. Make your goal a healthy lawn rather than a perfect lawn: you'll save yourself a lot of work and cut down on chemical application.⁷
5. Consider replacing chemical pesticides with microbial, botanical, or natural pesticides.¹
6. Use natural rather than chemical fertilizers.¹
7. Apply pesticides/fertilizers accurately and safely.¹
8. If you are a gardener, identify fruits and vegetables that require fewer pesticides.¹
9. On your farm, develop nutrient management plans and follow University of Illinois Extension Guidelines for fertilizer and pesticides.
Go to: <http://www.extension.uiuc.edu/>¹¹

Automobile Fluids

1. Recycle used motor oil at an auto shop or appropriate recycling center.²
2. Store oil, gasoline, antifreeze, and other automotive products properly -- keep these substances tightly sealed and avoid leaky containers.⁶
3. Dispose of oil and antifreeze safely; never dump it down the storm drain. A quart of oil can contaminate up to two million gallons of drinking water or create an eight-acre oil slick, while antifreeze can poison pets and wildlife.¹¹
4. Cut your grass without gas! According to the EPA, electric mowers use 70% less energy and are half as loud as gas mowers.¹
5. Keep boat motors well tuned to prevent leaks.²

Controlling water runoff

1. Use sediment barriers when necessary at construction sites to reduce sedimentation.⁶
2. Avoid excessive soil compaction and disturbance to the lot or construction site.⁶ Soil compaction reduces water infiltration and increases water runoff to storm sewers or other drainage conveyances.
3. Reduce paved areas; replace them with porous surfaces like gravel, brick, wood, etc.²
4. Avoid hooking downspouts directly into the storm-water sewer system or onto paved surfaces.⁶
5. Put drain downspouts onto grassy areas;⁶ you may also collect water in rain barrels to water plants at a later time.
6. Do not discharge sump-pump water onto paved surfaces.⁶
7. Plant and mulch exposed soil as soon as possible after construction to prevent erosion and runoff.⁶
8. Plant vegetation and tree buffers along streams.⁵ Buffers will reduce stream bank erosion, filter pollutants before reaching the stream, and trees will provide shade to reduce water temperatures and increase dissolved oxygen in the water.
9. Use natural plantings in the landscape that are deep-rooted and allow for more filtration.⁶

Other tips to reduce water pollution

1. Wash vehicles at a commercial car wash or on a non-paved surface to avoid drainage to the storm sewer.⁶
2. Clean up hazardous material spills properly and promptly, and don't wash waste into the storm sewer.⁶
3. Avoid allowing pet waste to be dumped or washed into the storm sewer. Bag and dispose of the waste properly or compost in the garden.⁶
4. Compost or recycle your yard waste; don't let it wash down the storm drain.¹¹
5. Clean boats with non-toxic products.²



Outdoor Water Conservation

1. Water your lawn only when necessary and at a rate no faster than the soil can absorb.¹
2. Do not water lawns or wash cars when water is in short supply.¹
3. If you must water plants or lawns, water early in the day to reduce evaporation.¹
4. Avoid sprinklers that produce a fine mist; too much water is lost by wind and evaporation.¹
5. Avoid sprinkling water on the pavement or hard surfaces.⁶
6. Use an alarm clock or stove timer to remind you to shut off the sprinklers.¹
7. Use pistol-grip nozzles on all hoses to avoid wasting water.¹
8. Reduce evaporation losses from flower and vegetable gardens by using an organic mulch or plastic ground cover between rows.¹
9. Collect water from roof gutters into rain barrels to use for lawn and plant watering.¹ For more information on rain barrels, visit: <http://rainbarrelguide.com>²⁵
10. When washing a car, give a quick rinse, use a bucket of soapy water and rag or sponge to wash the car, and then give it a second quick rinse to reduce water usage. Use a nozzle to stop the flow of water from the hose between rinsings.¹
11. Leave grass clippings on the grass to reduce evaporation of water and insulate the soil from heat.¹
12. Clean walkways and driveways with a broom instead of a hose.⁸
13. Cover swimming pools and hot tubs prevent water evaporation. You will cut the loss of water by 90%.¹⁰
14. Check the garden hose for leaks.⁸
15. Improve your landscaping design to reduce water use (i.e. grouping plants according to their watering needs) or plant with native Illinois plants, which are accustomed to this climate.

WATER CONSERVATION





Indoor Water Conservation

Bathroom

1. Take the "Navy shower". For a more efficient shower, turn water on to get wet, turn water off while lathering, and turn water on again to rinse.¹
2. Install low-flow showerheads with shut off valves that allow you to turn off water while soaping/shampooing.¹
3. Place "toilet dams" or rock-filled containers in conventional tanks. Rock-filled containers can reduce the amount of water used by 5-10 %.¹
4. When filling the tub, do not let water run down the drain while waiting for it to get hot. Instead, close the drain first and adjust the temperature later.¹
5. Replace current toilets with new "low-volume" toilets that can save 3-5 gallons per flush.⁷
6. Don't use the toilet to flush away facial tissues, paper, food or other solid and liquid wastes.¹
7. Repair leaks in your faucets and toilets. To find out if your toilet leaks, put a little food coloring in tank. If color appears in the bowl without flushing, you have a leak that should be repaired.¹ Leaky toilets could waste up to 200 gallons each day.¹⁰
8. Turn off water while brushing teeth; it can save you 5 to 10 gallons per day.¹

Kitchen

1. Use a filled sink to clean vegetables rather than letting water run.¹
2. Use two basins--one for washing dishes, the other for rinsing--rather than letting water run.¹⁰
3. Keep a bottle of water in the refrigerator rather than letting water run in the sink until it is cool enough to drink.¹
4. Avoid using the garbage disposal unless necessary. Wait until it is full to turn it on.¹
5. Run the dishwasher only with full loads and avoid using the extra-long prewash and scrub cycles unless necessary.¹
6. Proper maintenance of kitchen plumbing can be an effective way of saving water. Simply changing an inexpensive washer can usually repair leaking faucets.¹
7. Defrost frozen food in the refrigerator or in the microwave instead of running water over it.¹

Other water saving ideas

1. Run full loads of laundry and avoid turning on the extra rinse option.¹⁶

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