

Climate Change and Health: Climate Change Contaminates Your Water

Climate change is real and is caused primarily by human activity, especially burning fossil fuels. As ocean and air temperatures rise, the delicate balance of climate, weather events and life is disrupted. Human health suffers as a result. What is truly needed for health is a cool, stable climate.

Climate Change and Waterborne Diseases

Climate change is making heavy intense downpours, droughts and rising water temperatures more common. This can alter the quality of our drinking and recreational water. Bacteria and viruses thrive in these new conditions and when they come into contact with humans, can cause numerous illnesses. Lack of water can also impact human health, especially in drought conditions.

Flooding and Runoff Contaminate Water

Contamination of drinking water by bacteria, viruses, and protozoa can trigger outbreaks of illnesses such as the diarrheal diseases legionella, campylobacter, and cholera.

- From 2009–2010, 33 water-associated disease outbreaks were reported in the U.S. They caused 1,040 cases of illness, 85 hospitalizations, and nine deaths.

Many regions of the world, including the Northeast and Southern Great Plains of the United States, have experienced an increase in precipitation. This is expected to continue as climate change persists.

Some regions, like the Midwest, have experienced alternating patterns of flooding and drought. Drought reduces the earth's ability to absorb the water. When precipitation falls as more intense storms or as hurricanes that can cause flooding and jeopardize water quality.

- In rural areas, water runoff picks up animal wastes, pesticides, and fertilizers.



- In cities, runoff both carries pollutants and overwhelms sewage systems, causing untreated sewage to flow into drinking and recreational water sources.

Drought Disrupts Water, Food, and Health

Some regions, such as the Southwest U.S. and at times the Midwest, will experience decreased precipitation and longer, more frequent droughts. These conditions can also impact waterborne disease.

- As water sources decline, the concentration of contaminants increases, making them more likely to affect human health.
- Lack of clean water prevents adequate hydration and disrupts good hygiene.
- Periods of drought impact crops and livestock production and increase the price of food.
- Severe drought can also create dust-storm conditions, which can increase the risk of respiratory infections and exacerbate asthma.

The Dying Oceans

The vast oceans are not immune to climate change. Rising carbon dioxide emissions increase ocean temperatures and acidity.

- The combination of higher surface water and increased nutrient loading from agricultural runoff contribute to harmful algae blooms that produce biotoxins.
- Consumption of fish or shellfish contaminated with toxins can cause neurological damage, respiratory harm, skin irritations and diarrhea.
- Increases in ocean acidity threaten coral reefs and the future of shellfish like oysters, clams, and mussels. Where people depend heavily on seafood for food and income, incomes and nutrition are both likely to suffer.



How to protect yourself and your planet

- Decrease your household water use, especially during periods of drought.
- Listen to federal, state, and local fish consumption advisories for fish that are unsafe to eat.
 - Limit consumption of fish that typically have higher levels of mercury. These include tuna, swordfish, mackerel, sea bass, and grouper.
 - If pregnant, avoid completely fish with the highest amount of mercury.

- Listen to warnings about pollution and outbreaks of illnesses related to water.
 - Avoid pollution-prone beaches and lakes when notified, especially after rainfall.
- Take government or medically advised precautions when contamination is detected in drinking water, such as boiling the water before use.

Take action to reduce climate change

To protect our world from the health effects of climate change, we must take steps that restore the climate. This includes switching from fossil fuels to safe clean renewable energy sources like sun, water and wind. Planning future growth to ensure efficient, convenient mass transit. Where conditions permit, walking and bicycling more. We'll all live better on a cool, green, healthy planet!

To learn more about what you can do, see PSR's website: www.psr.org/environment-and-health

Get involved!

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