Contaminants in Drinking Water

PFAS

PFASs: per– and polyfluoroalkyl substances
PFAS are a large family of man-made chemicals which contain carbon, fluorine, and other elements. The two most extensively studied PFAS chemicals include perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS).

Quick Facts On PFAS:

Source of Contamination	• Fire fighting (aqueous film foams—AFFF); household products (resistant to water, grease, and stains) • industrial/commercial facilities (textile coaters, chromium platers, car washes) • PFAS-containing wastes (landfills, wastewater treatment effluent/biosolids)
Potential Health Effects	C8 Science Panel assessed probable links between PFOA exposure and diseases. And reports links to: • Diagnosed High Cholesterol • Ulcerative Colitis • Thyroid Disease • Pregnancy-Induced Hypertension • Testicular & Kidney Cancer Other studies also indicate exposure to PFOA/PFOS can have developmental effects on fetuses during pregnancy, or to breastfed infants, including: • Low birth weight • Accelerated puberty • Skeletal variations
Regulated Action Level for Drinking Water **parts per trillion (ppt)**	• U.S. EPA Lifetime Health Advisory: Sum of PFOA and PFOS @ 70 ppt • Australia Health-Based Guidance: PFOA @ 560 ppt; Sum of PFOS and PFHxS @ 70 ppt • Canada Drinking Water Screening Value: PFOA @ 200 ppt; PFOS @ 600 ppt • Proposed EU Drinking Water Directive: Individual PFASs @ 100 ppt; Sum of PFASs @ 500 ppt

Water Quality® ASSOCIATION

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Water Treatment Methods:

Studies on reduction of PFAS in drinking water have found effective Point-of-Use and Point-of-Entry solutions:

- Reverse Osmosis
- Carbon Filters
- Anion Exchange

Minnesota Department of Health Study on PFAS Removal:
https://www.health.state.mn.us/communities/environment/water/docs/wells/waterquality/poudevicefinalsummary.pdf

New Jersey Drinking Water Quality Institute Treatment Subcommittee:
http://www.nj.gov/dep/watersupply/pdf/pfna-pfc-treatment.pdf

U.S. EPA Factsheet:
https://www.epa.gov/sites/production/files/2016-06/documents/drinkingwaterhealthadvisories_pfoa_pfos_updated_5.31.16.pdf

How to find a water treatment professional:

To contact a water professional in your area visit WQA.org.

Certified water treatment professionals are individuals who have completed a voluntary credentialing process through WQA. To become certified, the candidate must pass a comprehensive examination.

Courtesy of The Water Quality Association
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