

Sources of Common Contaminants and Their Health Effects

Common Sources	Contaminants	Potential Health Effects
Household Items, such as Batteries, Thermometers, and Paints	mercury	Toxic to kidneys. Can cause eye and skin irritation; chest pain; tremor; fatigue; weakness.
Car Radiators and De-icing Agents	ethylene glycol	Can cause abdominal pain; vomiting; weakness; dizziness; central nervous system depression.
Photocopy Machines	chromium	Toxic to kidneys; potential human carcinogen.
Dry Cleaning Agents and Degreasers	trichloroethane and trichloroethylene	Central nervous system depression: decreased alertness, headaches, sleepiness, loss of consciousness. Kidney changes: decreased urine flow, swelling (especially around eyes), anemia. Liver changes: fatigue, malaise, dark urine, liver enlargement.
Herbicides for Vegetation Control	chlorophenoxy compounds; 2,4-dichlorophenoxyacetic acid	Chloracne, weakness or numbness of arms and legs, long-term nerve damages.
	dioxin	Dioxin causes chloracne and may aggravate pre-existing liver and kidney disease.
Pesticides	chlorinated ethanes; DDT; lindane	Acute symptoms of apprehension, irritability, dizziness, disturbed equilibrium, tremor, and convulsions.
	Cyclodienes (aldrin; chlordane; dieldrin; endrin); chlorocyclohexanes	Acute symptoms of apprehension, irritability, dizziness, disturbed equilibrium, tremor, and convulsions. Liver toxicity and permanent kidney damage. Chlorocyclohexanes can cause anemia.

	<p>Organophosphate: diazanon; dichlorovos; dimethoate; trichlorfon; malathion; methyl parathion; parathion</p> <p>carbamate: aldicarb; baygon; zectran</p>	<p>All cause a chain of internal reactions leading to neuromuscular blockage.</p> <p>Acute symptoms include headaches, fatigue, dizziness, increased salivation and crying, profuse sweating, nausea, vomiting, cramps, diarrhea, tightness in the chest, and muscle twitching</p>
Electrical Transformers and Other Industrial Uses	polychlorinated biphenyls (PCBs)	<p>Various skin ailments, including chloracne.</p> <p>May cause liver toxicity.</p> <p>Carcinogenic to animals.</p>
Commercial Solvents	benzene; ethyl benzene; toluene; xylene	<p>Benzene suppresses bone marrow function, causing blood changes; chronic exposure can cause leukemia.</p> <p>Central nervous system depression: decreased alertness, headaches, sleepiness, loss of consciousness.</p> <p>Defatting dermatitis.</p>
	<p>carbon tetrachloride; chloroform; ethyl bromide; ethyl chloride; ethylene dibromide; ethylene dichloride; methyl chloride; methyl chloroform; methylene chloride; tetrachloroethane; tetrachloroethylene; trichloroethylene; vinyl chloride</p>	<p>Central nervous system depression: decreased alertness, headaches, sleepiness, loss of consciousness.</p> <p>Kidney changes: decreased urine flow, swelling (especially around eyes), anemia.</p> <p>Liver changes: fatigue, malaise, dark urine, liver enlargement, jaundice.</p>

Various Commercial and Industrial Manufacturing Processes	Arsenic; beryllium; cadmium; chromium; lead; mercury	<p>All are toxic to kidneys. Decreased mental ability, weakness, headache, abdominal cramps, diarrhea, and anemia. Also affects blood-forming mechanisms and the peripheral nervous system.</p> <p>Long-term exposure to lead can cause permanent kidney and brain damage.</p> <p>Cadmium can cause kidney and lung disease.</p> <p>Chromium, beryllium, arsenic, and cadmium have been implicated as human carcinogens</p>
	PCBs	Various skin ailments, including chloracne; may cause liver toxicity; carcinogenic to animals.
Chemical Manufacturing	Benzene, ethyl benzene; toluene; xylene	<p>Benzene suppresses bone marrow function, causing blood changes; chronic exposure can cause leukemia.</p> <p>Central nervous system depression; decreased alertness, headaches, sleepiness, loss of consciousness.</p> <p>Defatting dermatitis.</p>
Steel and Glass manufacturing	Chromium; lead, mercury	<p>All are toxic to kidneys. Lead causes decreased mental ability, weakness, headache, abdominal cramps, diarrhea, and anemia. Also effects blood-forming mechanisms and the peripheral nervous system.</p> <p>Long-term exposure to lead can cause permanent kidney and brain damage.</p> <p>Chromium has been implicated as a human carcinogen.</p>
Chrome Plating Operations	Chromium	Toxic to kidneys; potential human carcinogen.

Chart Source: The U.S. Environmental Protection Agency