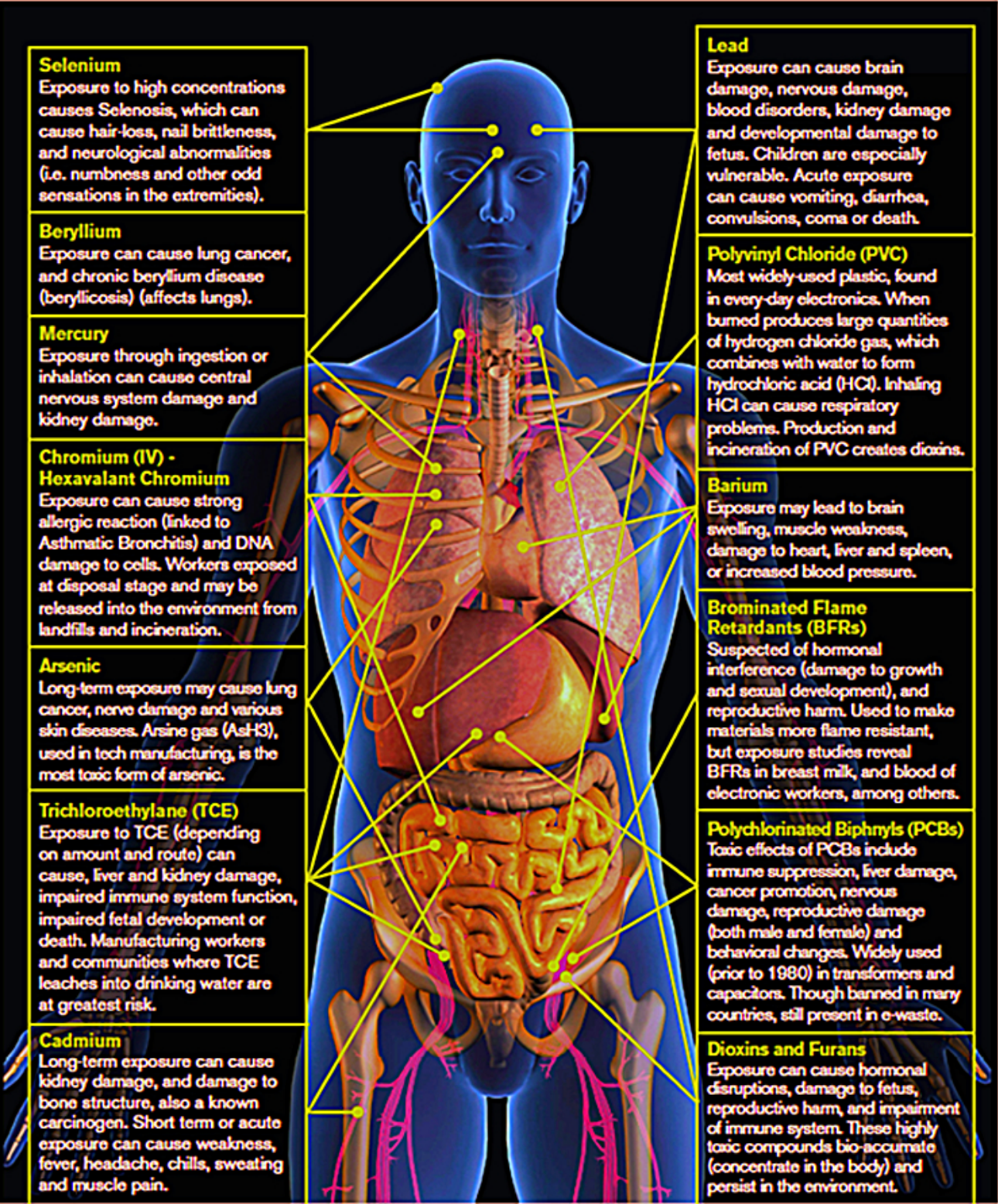
Selenium
Exposure to high concentrations causes Selenosis, which can cause hair-loss, nail brittleness, and neurological abnormalities (i.e. numbness and other odd sensations in the extremities).
Beryllium
Exposure can cause lung cancer, and chronic beryllium disease (berylliosis) (affects lungs).
Mercury
Exposure through ingestion or inhalation can cause central nervous system damage and kidney damage.
Chromium (IV) - Hexavalant Chromium
Exposure can cause strong allergic reaction (linked to Asthmatic Bronchitis) and DNA damage to cells. Workers exposed at disposal stage and may be released into the environment from landfills and incineration.
Arsenic
Long-term exposure may cause lung cancer, nerve damage and various skin diseases. Arsine gas (AsH3), used in tech manufacturing, is the most toxic form of arsenic.
Trichloroethylane (TCE)
Exposure to TCE (depending on amount and route) can cause, liver and kidney damage, impaired immune system function, impaired fetal development or death. Manufacturing workers and communities where TCE leaches into drinking water are at greatest risk.
Cadmium
Long-term exposure can cause kidney damage, and damage to bone structure, also a known carcinogen. Short term or acute exposure can cause weakness, fever, headache, chills, sweating and muscle pain.
Lead
Exposure can cause brain damage, nervous damage, blood disorders, kidney damage and developmental damage to fetus. Children are especially vulnerable. Acute exposure can cause vomiting, diarrhea, convulsions, coma or death.
Polyvinyl Chloride (PVC)
Most widely-used plastic, found in every-day electronics. When burned produces large quantities of hydrogen chloride gas, which combines with water to form hydrochloric acid (HCl). Inhaling HCl can cause respiratory problems. Production and incineration of PVC creates dioxins.
Barium
Exposure may lead to brain swelling, muscle weakness, damage to heart, liver and spleen, or increased blood pressure.
Brominated Flame Retardants (BFRs)
Suspected of hormonal interference (damage to growth and sexual development), and reproductive harm. Used to make materials more flame resistant, but exposure studies reveal BFRs in breast milk, and blood of electronic workers, among others.
Polychlorinated Biphnyls (PCBs)
Toxic effects of PCBs include immune suppression, liver damage, cancer promotion, nervous damage, reproductive damage (both male and female) and behavioral changes. Widely used (prior to 1980) in transformers and capacitors. Though banned in many countries, still present in e-waste.
Dioxins and Furans
Exposure can cause hormonal disruptions, damage to fetus, reproductive harm, and impairment of immune system. These highly toxic compounds bio-accumate (concentrate in the body) and persist in the environment.