

# Mercury & Mercury Compounds

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## Summary of Health Effects

Mercury affects the way unborn babies and children develop. Breathing in mercury vapors affects the human nervous system.

## How are mercury and mercury compounds used?

There are three forms of mercury, each with generally different uses<sup>1</sup>:

- 1) Metallic – used in some thermometers and light bulbs
- 2) Inorganic – used in some industrial processes, in the production of other chemicals, and in cosmetics
- 3) Organic – used as preservatives in pharmaceuticals

## Toxicity: What are its health effects?

The Agency for Toxic Substances and Disease Registry (ATSDR) toxicological profile states that harmful developmental effects may occur when a pregnant woman breathes or ingests mercury; some of the mercury is passed on to the developing child.<sup>1</sup>

It also notes that these forms of mercury are more dangerous for young children than for adults because it passes more easily into the developing brain and may interfere with the developmental process.<sup>1</sup>

Mercury vapors affect the human nervous system and may cause irritability, nervousness, tremors, changes in vision, and muscle coordination issues according to ATSDR<sup>1</sup>

Mercury is listed as a developmental hazard by the European Union and the State of California.<sup>2,3</sup>

## Exposure: How can a person come in contact with it?

A person can come in contact with mercury by breathing in contaminated air, swallowing contaminated food, or from skin contact with consumer products.<sup>1</sup>

Mercury is a naturally occurring substance, which means that some level of exposure is inevitable.<sup>4</sup> Mercury is naturally taken up by many animals living in the ocean environment.<sup>4</sup>

Other sources of exposure include the following: vapors from fungicides that contain mercury, outdated medicinal products that may have been made with mercury, skin lightening creams, topical antiseptics, disinfectants and foods such as certain types of seafood.<sup>4</sup>

Mercury has been identified in the Environmental Protection Agency's Urban Air Toxics Strategy as one of 33 hazardous air pollutants that present the greatest threat to public health in urban areas.<sup>5</sup>

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## References

1. Agency for Toxic Substances and Disease Registry (1999). *ATSDR Toxicological profile for mercury*. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Services. Retrieved from [www.atsdr.cdc.gov/toxprofiles/tp46.pdf](http://www.atsdr.cdc.gov/toxprofiles/tp46.pdf)

2. European Chemicals Agency (ECHA) (2011). *REACH Registration dossier—Mercury*. [echa.europa.eu/registration-dossier/-/registered-dossier/5169/2/1](http://echa.europa.eu/registration-dossier/-/registered-dossier/5169/2/1)
3. California EPA, Office of Environmental Health Hazard Assessment. List of Chemicals Known to the State to Cause Cancer or Reproductive Toxicity. January 23, 2015. [oehha.ca.gov/proposition-65/proposition-65-list](http://oehha.ca.gov/proposition-65/proposition-65-list)
4. EPA National Air Toxics Program: Integrated Urban Strategy. List of the 33 Urban Air Toxics. [www2.epa.gov/sites/production/files/2014-08/documents/07061999-fs-air-toxics-strategy.pdf](http://www2.epa.gov/sites/production/files/2014-08/documents/07061999-fs-air-toxics-strategy.pdf)