



Effects of **PCBs** on human health

Effects of PCBs on human health

Polychlorinated biphenyls (PCBs) are one of the most harmful man-made pollutants. Today, almost everyone has been exposed to PCBs, as they are widely distributed in the environment.

How do PCBs enter the human body?

PCBs enter the human body through:

- Ingestion (e.g., animal fats or contaminated water).
- Absorption through the skin
- Inhalation
- Breastfeeding



There are two ways in which we can be exposed to PCBs:

• Occupational exposure

This exposure can be controlled more effectively if safety regulations about the use of PCBs at the workplace are provided.



• Environmental exposure

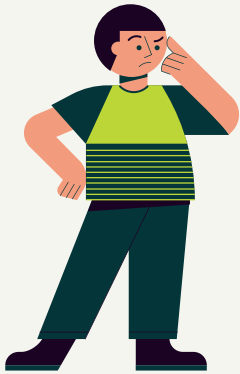
We are exposed to PCB by eating animal fats as PCB can accumulate for a long time in animals, especially fish and top predators.



Because PCB are very stable, they remain for a long time (or for many decades) in the environment and therefore PCBs can be found all over the world in many food products such as milk, fish, seafood, etc.

Effects of PCBs on human health

How harmful are PCBs to human health?



There are many factors that determine how harmful it will be to your health in case you are exposed to PCBs.

Factors:

- The dose (how much)
- The duration (how long)
- How you came into contact with PCB
- Other chemicals you are exposed to
- Age
- Sex
- Diet
- Family traits
- Lifestyle
- State of health

Health effect that PCBs have been linked to:

- Cancer
- Chloracne
- Liver damage
- Menstrual cycle alterations
- Endocrine system disruptions
- Lymphatic and reproductive system problems
- Hyperpigmentation of nails and skin
- Immune system suppression, which may increase the risk of developing diseases.
- Neurological development problems due to the presence of PCBs in breast milk or in the placenta



Effects of PCBs on human health

Is there a medical test to prove that I have been exposed to PCBs?

There are medical tests available to measure PCBs in blood, body fat and breast milk. These are not routine clinical tests, but could be ordered by a doctor. These tests indicate whether you have been exposed to a higher amount of PCBs than the general population. However, they do not indicate the exact amount, the type of PCBs you have been exposed to, or predict whether you will suffer adverse effects.

Blood tests are the easiest and safest method to detect recent exposures to PCBs.



PCBs accumulate in fat tissue in the human body for many years. Their excretion (or release) is therefore extremely slow. Thus, safety measures are important when handling PCBs to avoid exposure to them.



Effects of PCBs on human health

How can people reduce the risk of exposure to PCBs?

You and your family may be exposed to PCBs by eating certain types of fish or wild animals caught in contaminated locations. In the case of workers handling electrical equipment, they may be exposed to PCBs. Therefore it is important that people are informed about PCBs and their risks.



PCBs dissolve easily in body fat, including breast milk fat and thus be transferred to infants.

Recommendations for reducing the risk of exposure to PCBs

- If children live near hazardous waste sites, they should not play on the ground or in areas where a transformer has caught fire.
- Children should not eat dirt and should wash their hands carefully and frequently.
- Children should not play with old electrical equipment or transformers.



Children

Effects of PCBs on human health



Worker exposed to PCBs

- Comply with safety regulations provided at your workplace regarding PCBs.
- Shower and change clothes before leaving your workplace for home.
- Your clothes should be washed and kept separate from those of your family.

- Avoid consumption of animal fats from areas where PCBs are known to be present or have been produced.
- Avoid consumption of large fish from areas where PCBs have been detected.
- Follow local and state recommendations and restrictions for fishing.
- Check with your local or state health authority or environmental department for advice on PCB risk in different types of fish and wildlife and for which areas those apply.



General public