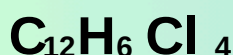
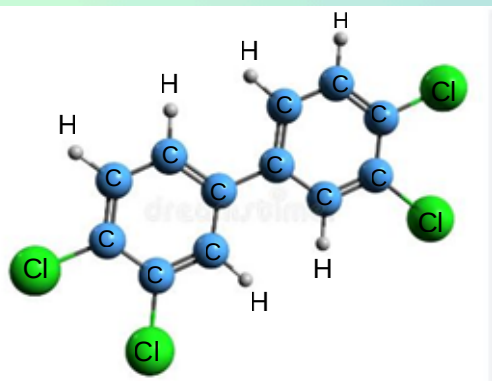


# Polychlorinated Biphenyls



## Description and properties

Polychlorinated biphenyls (PCBs) can withstand high temperatures and exposure to chemicals. They are classified as flame retardants, are heat-resistant, do not conduct electricity, do not cause corrosion, and have high water resistance.

They are multifunctional and relatively inexpensive to manufacture.

PCBs are classified as persistent organic pollutants (POPs). They can cause acute and chronic poisoning in humans and animals, particularly in aquatic environments.

## Uses

- As insulating and cooling fluids in electrical equipment, such as transformers and capacitors
- As hydraulic oil
- As a plasticizer and flame retardant in paints and resins
- As a plasticizer in sealants
- As a paper coating
- As an ingredient in insecticide formulations



## Effects on the Environment

PCBs are now found throughout the environment and accumulate in the food chain.

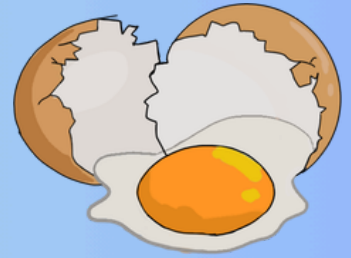
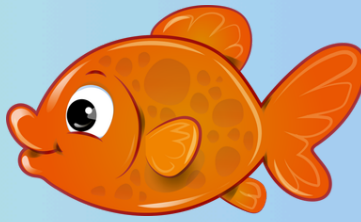
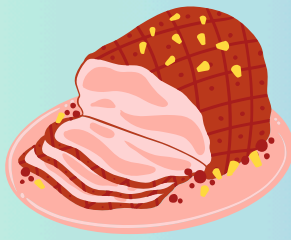
- They affect the immune and endocrine systems.
- They disrupt the reproductive functions of animals and cause fertility problems in males.



## Effects on Human Health

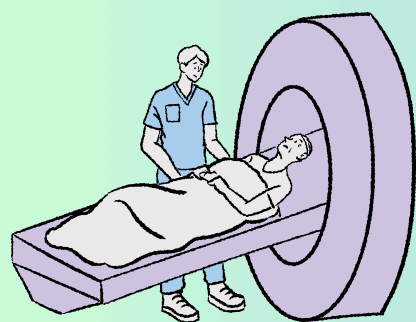
### Routes of Exposure

- Consumption of fatty foods (milk, meat, fish, and eggs)
- Contact with and inhalation of oil leaking from damaged equipment containing PCBs (polychlorinated biphenyls).



### Consequences of Poisoning

- Disruption of hormonal system function, leading to infertility in men
- Development of cancer
- Problems with embryonic development
- Impaired liver and immune system function
- Nervous system disorders in young children (for example, it may cause Attention-Deficit/Hyperactivity Disorder (ADHD))
- A dose of just 35 mg per kilogram of body weight can be fatal.



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