



DDT (DICHLORODIPHENYLTRICHLOROETHANE)

ENVIRONMENTAL HEALTH – CONTAMINANTS FACT SHEETS

WHAT DO WE KNOW ABOUT DDT?

DDT is a persistent organic pollutant (POP). It is made by humans and does not occur naturally in the environment.

DDT was used as an insecticide to prevent the spread of disease and to protect crops. Canada banned the use of DDT in the 1980s, but some countries (primarily in Africa) still use it to prevent the spread of diseases, like malaria, that are carried by insects.

DDT is a mixture of several similar chemicals. It is very stable and lasts a long time in the environment. It can travel long distances in the air and settle in regions far away from where it came. This process is called Long Range Atmospheric Transport (*see Contaminants Overview fact sheet - <http://www.hss.gov.nt.ca>*).

POPs (such as DDT) can build up in animal tissues over time through a process called bioaccumulation (*see Contaminants Overview fact sheet - <http://www.hss.gov.nt.ca>*). This means that older animals tend to have higher levels of POPs than younger animals. POPs tend to be found at higher levels in animals that eat other animals and in smaller amounts in animals that eat plants. This is due to a process called biomagnification (*see Contaminants Overview fact sheet - <http://www.hss.gov.nt.ca>*). Marine mammals tend to have the highest levels of POPs.

POPs do not dissolve very well in water. When POPs enter water, they will stick to sediments instead. This means that water contains very low levels of POPs and we do not need to be concerned about POPs in the water.

HOW DOES DDT AFFECT HUMAN HEALTH?

If a person is exposed to POPs, many factors will determine whether any harmful health effects will occur and what the type and severity of those health effects will be. These factors include the dose (how much), the duration (how long), the route or pathway by which you are exposed (breathing, eating, drinking, or skin contact), the other chemicals to which you are exposed, and your individual characteristics such as age, gender, nutritional status, family traits, life-style, and state of health.

Most DDT exposure is through consuming contaminated food that contains small amounts. DDT is not absorbed through the skin or lungs easily. When DDT enters the body, it tends to be stored in the fatty tissues and is excreted from the body over time.

High amounts of DDT exposure can lead to problems with the nervous system and liver. Animal studies conducted with DDT indicate very high doses may cause effects on the nervous system, kidney, liver and immune system, but it is not known if humans are affected in the same way as animals.

ARE TRADITIONAL FOODS SAFE TO EAT?

Traditional foods provide many essential nutrients that can lower the risk of chronic diseases. Marine mammals tend to have the highest levels of POPs, particularly in the fatty

tissues. However, most people do not need to be concerned about contaminated-related effects from traditional food consumption. Generally, the benefits of eating traditional foods outweigh the risks from contaminant exposure.