TERRIBLE PESTICIDES That are Toxic to Children





Atrazine

Broad-spectrum herbicide. Banned in 2004 by the European Union (EU) because it can contaminate groundwater.

Hazards to children:

Potential developmental effects, immunotoxic, endocrine disruptor; later in *life cancer, male reproductive problems.* Risk of exposure via drinking water in areas of high intensity use is a major concern.

Carbaryl

An insecticide. Classified as a "likely human carcinogen" by the U.S. **Environmental Protection Agency** (U.S. EPA). Banned in the EU.

Hazards to children:

Neurotoxic at low levels of exposure. Can cause childhood brain cancer. Can cause birth defects. Can affect thyroid hormones. *Immunotoxic, can weaken the immune* system and enhance allergic responses.

Chlorothalonil

Broad-spectrum fungicide.

A "probable human carcinogen" according to U.S. EPA. Chronic exposure can cause kidney damage. Evidence of developmental and immune effects in animals. Banned in Denmark and Sweden.

Hazards to children:

Risk of cancer, endocrine disruption, immune and developmental effects.

Chlorpyrifos

An acutely toxic organophosphate insecticide, can result in death.

In US banned for household use because of toxicity to children, and complete ban is proposed by EPA.

Hazards to children:

Acute poisoning. Neurotoxic; at low levels of exposure can cause brain damage, reduced IQ, ADHD. Endocrine disruptor, affecting thyroid and sex hormones. Can impair immune system. Can cause cancer, birth defects; may predispose to obesity, diabetes.

Cypermethrin

A synthetic pyrethroid insecticide. A "possible human carcinogen" according to U.S. EPA. Endocrine disruptor.

Hazards to children:

Acute poisoning. Cancer. Behavioural effects and delayed mental development; impaired immune function. Can cause breast cancer, male reproductive problems, Parkinson's disease later in life.

DDT

An organochlorine insecticide. Classified as a "probable carcinogen" according to U.S. EPA. Neurotoxic, endocrine

disruptor, damages reproductive system.

Hazards to children:

Prenatal exposure associated with neurodevelopmental delays, and reduced cognitive disorders. Effect on pubertal timing; implicated in type 2 diabetes and obesity.

Deltamethrin

An acutely toxic synthetic pyrethroid **insecticide.** Can cause mutations in human and rodent cells. Can cause mammary and thyroid tumours. Highly toxic to fish,

> invertebrates, and bees. Hazards to children:

Associated with childhood brain cancer. Can cause nerve degeneration. Can disrupt thyroid and reproductive hormones, decrease growth hormone and growth factors, which may affect growth and reproductive development. Can cause immune system disorders. May cause breast cancer later in life.

Diazinon

An organophosphate insecticide. Banned in EU because of its adverse effect on adults and children. Neurotoxin, endocrine disruptor, immunotoxic, carcinogen.

Hazards to children:

Acute poisoning. Reduced foetal growth. Brain cancer. Can cause delayed neurobehavioral development, reduced cognitive function. Can lead to a range of cancers, diabetes, Parkinson's disease later in life.



Dichlorvos

An organophosphate insecticide.

Classified by the World Health Organization (WHO) as Class 1b: Highly hazardous. A highly toxic neurotoxin, fatal if inhaled, swallowed or absorbed through skin. A known animal carcinogen; endocrine disruptor; reproductive toxicant; immunotoxic. Banned in EU.

Hazards to children:

Acute poisoning; brain cancer, leukaemia, impaired immune function. A potential developmental neurotoxin. Increased risk of Parkinson's disease, cancers, diabetes later in life.

Lambda-cyhalothrin

An insecticide widely used in farming, public health and households. Highly toxic. Endocrine disruptor; male reproductive toxicant; suppresses immune system. Chronic toxicity can damage kidney, liver,

> lungs, heart, spleen in animals. **Hazards to children:**

Acute poisoning. Impaired immune function. Can cause impaired learning and brain changes similar to Parkinson's disease. Increases risk of breast cancer and can cause male reproductive problems later in life.

Malathion

An organophosphate insecticide. Neurotoxic. Classified as a 'probable human carcinogen' by International Agency for Research on Cancer (IARC) Immunotoxic;

endocrine disruptor. Highly toxic to aquatic organisms, it has caused many fish kills. **Hazards to children:**

Acute poisoning. Birth defects. Can cause brain degeneration, decreased learning, attention deficit hyperactivity disorder (ADHD), cognitive disorders. Can cause cancer and reproductive problems later in life, and increases risk of obesity and diabetes.







ASTHMA, ALLERGIES and immune system problems

Mancozeb

A fungicide. Classified as a "probable human carcinogen" by U.S. EPA. Can alter the immune system. Affects hormones, particularly thyroid hormones. Reproductive toxicant.

Hazards to children:

Acute poisoning. Birth defects. Allergic sensitisation. Can alter the developing brain and affect behaviour. May cause Parkinson's disease, cancers, female reproductive problems later in life.

Maneb

A fungicide. Acutely toxic, can be life-threatening to children. Classified as a "probable human carcinogen" by the U.S. EPA Affects hormone system, especially thyroid; can alter immune system response.

Hazards to children:

Acute poisoning. Birth defects. May cause development and behavioural effects; and *impaired immune function. Early* developmental exposure may be associated with Parkinson's disease, cancers and male reproductive problems later in life.

Methamidophos

A broad-spectrum organophosphate **insecticide.** Acutely toxic. Classified by WHO as Class 1b: Highly hazardous neurotoxin. Disrupts hormones. Residues are commonly found in vegetables. May affect immune system. Potential to cause cancer. Banned in many countries.

Hazards to children:

Acute poisoning, death. A potent neurobehavioral and developmental toxicant. It can cause cognitive problems, depression, mood disorders.

Methyl Parathion

An acutely toxic insecticide.

Classified by the WHO as Class 1a: extremely hazardous. Disrupts hormones. Toxic to immune and reproductive systems. Banned in Laos, Cambodia, Vietnam, Indonesia, Sri Lanka, Philippines, China, Thailand, Malaysia, Myanmar, South Korea, Vanuatu and EU.

Hazards to children:

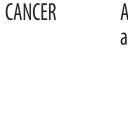
Can cause impaired short-term memory and attention, motor skill and behavioural problems. Can cause allergic dermatitis. Can lead to neuro-psychiatric disorders and reproductive problems later in life.

HEALTH IMPACTS OF PESTICIDES



POISONING





BIRTH DEFECT is one of the impacts of pesticide on children



REPRODUCTIVE **DISORDERS** and abnormalities



OBESITY, DIABETES and other metabolic diseases



NEURODEVELOPMENT and behavioural disorders

Monocrotophos

An organophosphate insecticide. Acutely toxic by all routes of exposure. Classified by the WHO as Class 1b: highly hazardous. Repeated exposure may induce type II diabetes. Banned in Australia, Cambodia, China, EU, Indonesia, Laos, Phillippines, Sri Lanka, Thailand, Vietnam and US.

Hazards to children:

Can cause neurobehavioural problems, delayed neuropathy and the growth of human breast cancer. There is evidence of endocrine disruption in animal tests. In animal tests there is decreased fertility, depressed lactation, birth defects. Can reduce the ffectiveness of the immune system (in animal tests).

Hazards to children:

Associated with neurobehavioural effects,

delayed mental development and

leukaemia. Can aggravate skin irritations,

asthma and allergies. May lead to

breast cancer later in life.



Permethrin Propoxur

An insecticide. Associated with An insecticide used mostly for indoor leukaemia, lung and liver tumours, and residual spraying and bed nets for multiple myeloma. Disrupts hormonal mosquito control. Classified as a "probable human carcinogen" by the system; suppresses immune system. U.S. EPA. Banned in the EU. Banned in the EU.

Hazards to children:

Acute poisoning. Prenatal exposure associated with poorer motor development in children. Leukaemia. Can disrupt hormone levels and cause breast cancer cells to grow. Can suppress the immune system. Can led to breast and other cancers later in life.



Paraquat

Trade name: Gramoxone. An acutely toxic herbicide. A teaspoon of paraquat concentrate can cause death. There is no antidote. Chronic exposure to paraguat can cause pulmonary fibrosis: stiffening of the

lung tissue. Banned in many countries. Hazards to children:

Acute poisoning, death. Can adversely affect the development of brain function. Linked to Parkinson's disease. Disrupts hormones and may affect immune system. *Implicated in diabetes.*

Parathion

An organophosphate insecticide. Classified by the WHO as Class 1a: Extremely hazardous. Neurotoxin; endocrine disruptor; immunotoxic. The U.S. EPA classifies it as "possible human carcinogen". Banned in many countries.

Hazards to children:

Acute poisoning. Death. Birth defects. *Neonatal exposure can cause reduced cognitive* function and ability to learn in children, and compromised neurological function in adults. Can lead to obesity, diabetes and cancer later in life. Can weaken the immune system and aggravate allergic asthma, dermatitis.

New Addition: Glyphosate

A herbicide and most widely used in the world. Trade name: Round Up (manufactured by Monsanto) and others. The International Agency for Research on Cancer (IARC) classified glyphosate as a "probable carcinogen to humans". Banned in Sri Lanka.

Hazards to children:

Cancer. Birth defects. Skin conditions. Kidney damage. Allergic responses. Can disrupt hormones, particularly progesterone and testosterone, alter the progression of puberty and cause breast cancer cells to grow. Possible link with Parkinson's disease.

