

Deadly dioxin found in human a first in North America

STAR
24/6/82
P.A3

By Peter Rickwood
Toronto Star

Traces of the deadliest poison known to man, dioxin TCDD, have been discovered in a human tissue sample from Kingston.

It is believed to be the first time in North America that the lethal toxin has been found in a human, except among veterans of the Viet Nam war.

Dioxin is so powerful that some experts say an ounce in Metro's water supply would be enough to poison the entire population.

The presence of the chemical in existing chemical dumps, such as the former chemical dump on the Niagara River in Ontario, has been a cause of growing anxiety for Canadian officials.

The detection of dioxin in one of the samples from Kingston was part of a survey into Great Lakes pollution that began in 1978.

Environmental scientists say they

have no way of knowing how the chemical entered the body of the Kingston person the tissue sample was taken from.

The tiny amount of dioxin — believed to be between one and ten parts per trillion — was just above the limit of detection, said David Williams, head of the federal research group that found it.

Altogether, eight adipose tissue (fat) samples were tested for dioxin, he said.

Two were from Ottawa — used as a control in the test — and six from Kingston, all supplied by hospitals between late 1979 and early 1981.

Older people

"They (the bodies from which the samples were taken) were mainly older people," said Williams, head of the organic chemistry section of the ministry of health and welfare's environmental health directorate. "We don't know if their age is significant." Nor was their cause of death revealed.

"I don't think I am qualified to answer whether this is cause for alarm," Williams said. "We were just doing this as a preliminary research study to see how useful such research would be."

He said that previous surveys have found evidence of polychlorinated biphenyls (PCBs) and DDT in body tissue, but not dioxin.

Two years ago the science advisory board of the International Joint Commission warned that "for the protection of all life forms" dioxin should be absent from the environment.

"It is a highly toxic and carcinogenic chemical for which there is no

threshold," Dr. Samuel Epstein, a U.S. cancer expert, said yesterday.

"Even parts per trillions in terms of numbers of molecules is significant. It is a very overwhelming chemical."

Dioxin's effect on humans is evident among Viet Nam veterans exposed to the defoliant Agent Orange, which contained small amounts of the chemical and in Vietnamese children.

Western visitors to Viet Nam say that some of its hospitals are filled with terribly deformed children, the victims of dioxin. A high cancer incidence has also been reported among residents of some of the areas that were sprayed with Agent Orange.

The U.S. veterans report skin lesions, swollen livers, numbness and personality disorders.

The presence of the chemical in Lake Ontario has been known to scientists for years.