

CHLORINE

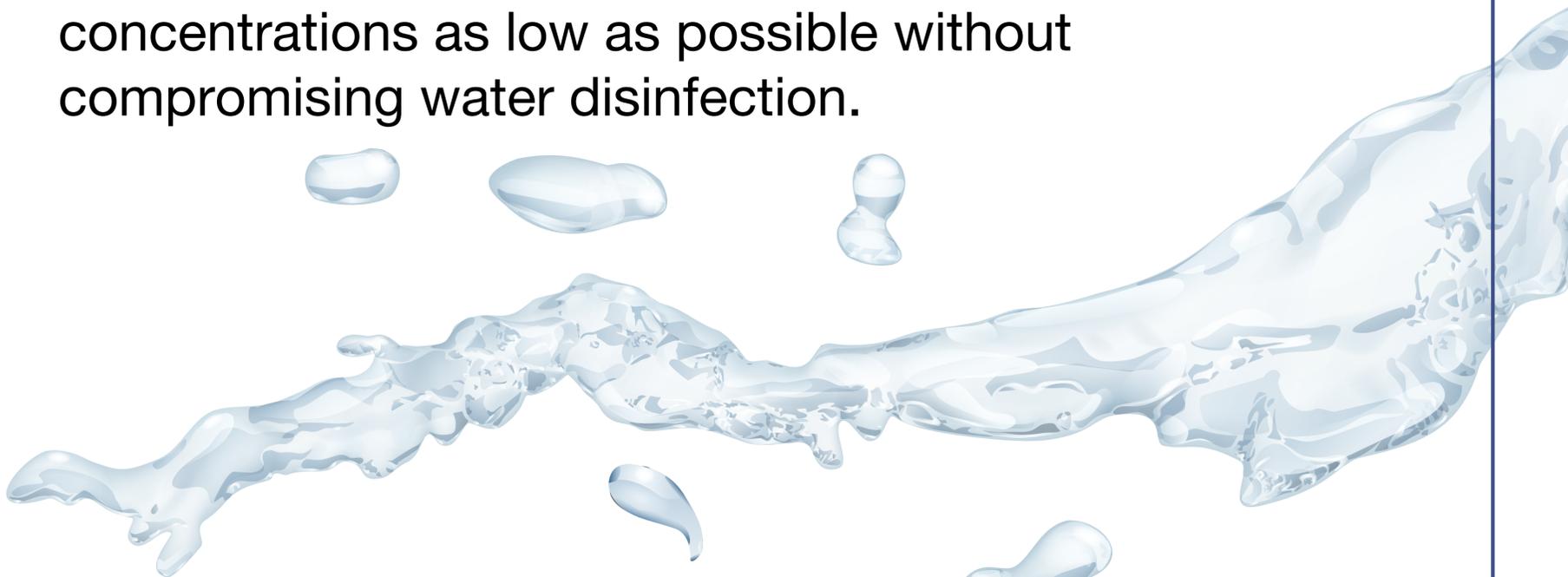
Why do we use Chlorine in drinking water?

Chlorination of drinking water has virtually eliminated typhoid fever, cholera and many other diseases in Canada.

Chlorination is one of the greatest achievements of public health protection.

Chlorine reacts with organic material in water, creating byproducts called Trihalomethanes, or THMs.

Health Canada recommends keeping THM concentrations as low as possible without compromising water disinfection.



**simcoe
muskoka**
DISTRICT HEALTH UNIT

THE EVIDENCE

THMs and Health

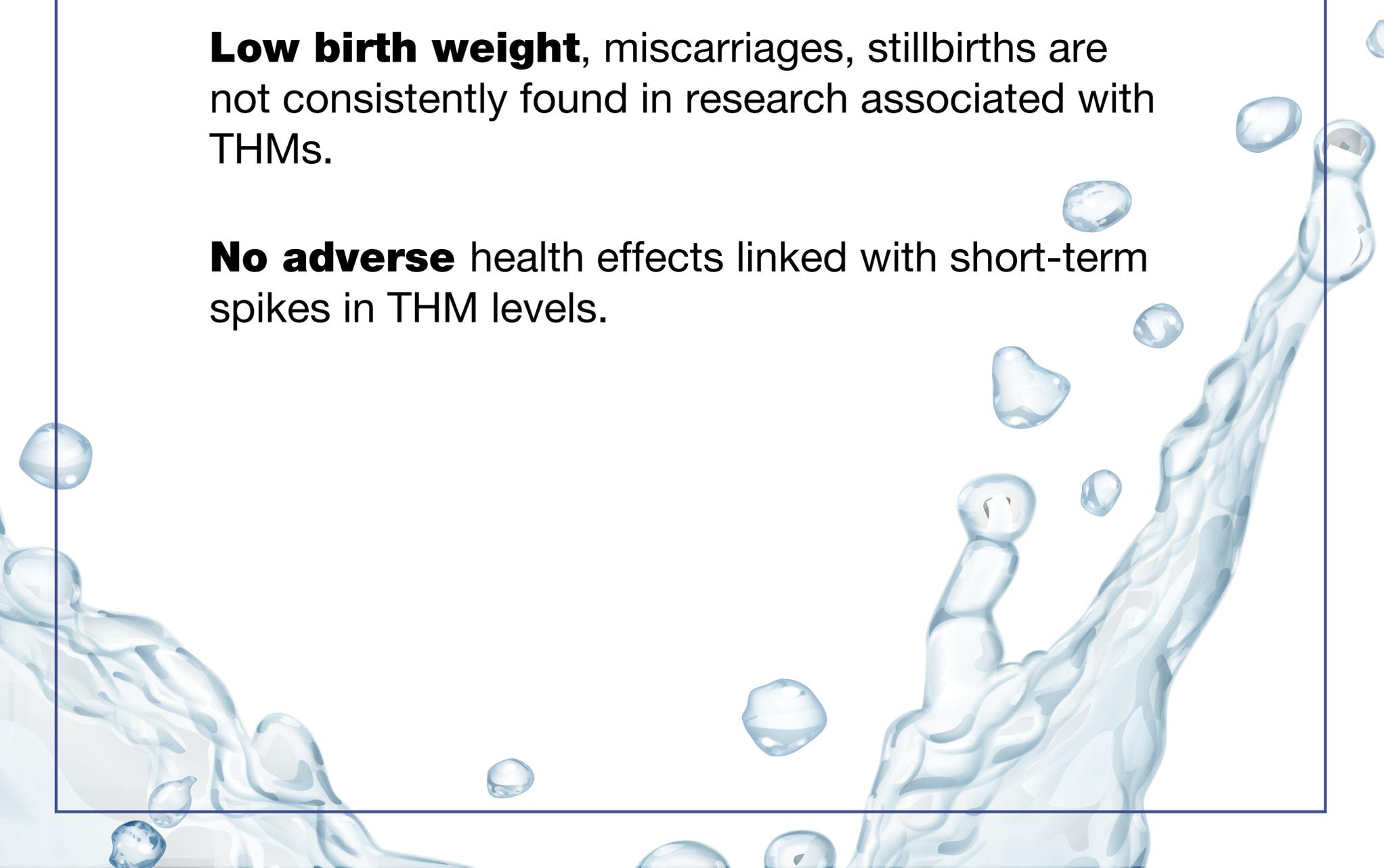
Some research shows elevated THMs may cause cancer in colon, rectum, kidney, bladder, liver.

A slight increase in cancer risk may exist with a lifelong exposure at high levels.

Risk elevation of 1 cancer case per 100,000 people exposed over 70 years at 0.100 mg/L.

Low birth weight, miscarriages, stillbirths are not consistently found in research associated with THMs.

No adverse health effects linked with short-term spikes in THM levels.



SAFE WATER

It's the health unit's responsibility...

Our goal is to prevent or reduce
water-borne illnesses related
to drinking water.

We work with the Ministry of Environment,
Conservation and Parks and drinking water
operators.

We respond to adverse water quality reports
including exceedances of the Ontario Drinking
Water Standards.

We provide direction to water operators on any
adverse water quality reports.



THMs

What are Trihalomethanes (THMs)?

THMs are a colourless, tasteless, and odourless by-product. They include chloroform, bromoform, dibromochloromethane, bromodichloromethane.

Concentrations of THMs within a drinking water system may vary significantly over time.

The drinking water standard for THMs, is 0.100 mg/L (reported as a running annual average).

Without adequate disinfection of our water supplies, the health risks from bacteria and viruses would far outweigh the risks from THMs.

