WHAT DO WE KNOW ABOUT RADIONUCLIDES?

Radionuclides are substances that release energy called radiation. Some radionuclides are made by humans, such as cesium-137, and others occur naturally, such as potassium-40 and lead-210. Radionuclides can be found everywhere in small amounts and the greatest exposure to radiation comes from naturally occurring radionuclides. These come from the Earth’s crust and from cosmic radiation (from outside of Earth’s atmosphere).

Man-made radionuclides come from above-ground nuclear weapons testing (which was banned in the 1960’s), and from nuclear accidents like Chernobyl (1986) and Fukushima (2011). Radionuclides can travel long distances from where they were released because they are carried in the air.

Natural radionuclide levels can also be increased by human activities, such as uranium mining.

In 1978, the Cosmos 954 satellite crashed into Great Slave Lake and released some radioactivity into the environment. This level of radionuclides was found to not be of concern.

HOW DO RADIONUCLIDES AFFECT HUMAN HEALTH?

High levels of radionuclide exposure can damage the cells of the body and cause cancer.

If exposure is severely high, early symptoms can include skin damage, cataracts, and in extreme cases, death. These exposure levels are not what one would find in the NWT.

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.