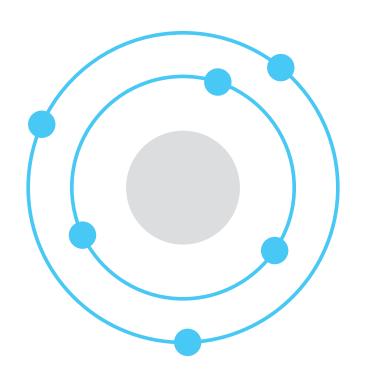
## What is an Isotope?



The global business of medical isotopes is projecting to grow by up to 5% every year.

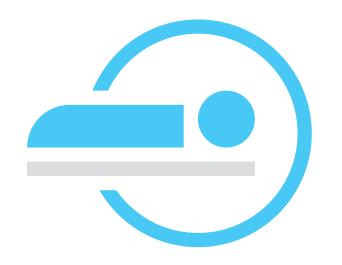


The Canadian Nuclear
Safety Commission
licenses the use and
production of over
250 radioisotopes in
Canada.

**Isotope** (*i-so-tope*) An isotope of a chemical element is an atom that has a different number of neutrons (that is, a greater or lesser atomic mass) than the standard for that element. The atomic number is the number of protons in an atom's nucleus.

Canada's supply of isotopes comes from two complementary sources — cyclotrons and nuclear reactors. They each play an essential role in developing various types of isotopes that are critical to our health care system.

Canada has made real advancements in the development of cyclotrons, but with the shutdown of the National Research Universal reactor (NRU) in 2018, the world is in need of a new supply of reactor isotopes. There is a gap today in our national infrastructure around that supply, which needs to be closed for us to retain our strategic and economic advantage in this innovative field.



Nuclear
technology saves
lives through the
use of radioisotopes
for screening,
diagnosis and
therapy of
various medical
conditions.

Canada contributes more than 50% of the world's "raw material" isotope supply.