Canada's Leadership in Cobalt-60 Radioisotopes

What is Cobalt-60?

Cobalt-60 is an isotope that emits gamma rays essential to the medical community for cancer treatments, as well as sterilization of medical devices.

Low-Specific Activity (LSA) Cobalt-60

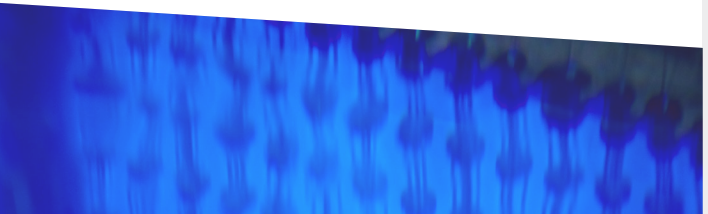
LSA Cobalt-60 is the first and most widely used type of Cobalt-60. It is utilized to sterilize medical devices such as sutures, gloves, and syringes.

High Specific Activity (HSA) Cobalt-60

HSA Cobalt-60 is used worldwide to battle cancer and for radiation therapy in the treatment of complex brain conditions.

Canada is a world leader in producing Cobalt-60

- **70%** of cancer therapies that use external radiation, use Cobalt-60.
- Canadian exports of Cobalt-60 provide affordable cancer care to **10 million** patients in the developing world.
- More than **40%** of all single-use medical devices produced globally are sterilized with Cobalt-60, the equivalent of sterilizing 10 billion syringes or 108 pairs of surgical gloves. More than half of this is provided by Canada.



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CANADIAN NUCLEAR ISOTOPE COUNCIL

Advancing human health.
Saving lives.

About us

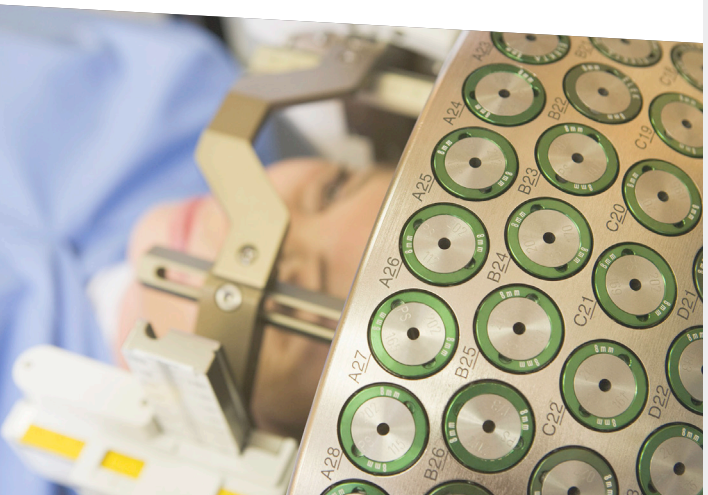
The Canadian Nuclear Isotope Council (CNIC) is an independent organization consisting of representatives from various levels within the Canadian health sector, nuclear industry, and research bodies, convened specifically to advocate for Canada's role in the production of the world's supply of isotopes.

Canada's Role

For more than 60 years, Canada has played an important role in researching, developing, and producing medical isotopes and radiopharmaceuticals for both domestic and international use.

Isotopes and their uses

- Sterilization
- Diagnostic imaging
- Cancer treatment
- Insect sterilization
- Food irradiation
- Research & Development



Canadian Isotopes by the Numbers

1951:

The world's first cancer treatment with radiation took place in London, Ontario. This marked an important milestone for both the fight against cancer and Canada's emergence as a leader in the field of nuclear power.

15,000

therapeutic doses administered each year in Canada.

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

250

radioisotopes licensed by the Canadian Nuclear Safety Commission for use and production in Canada.

1.5 million

nuclear diagnostic scans are performed each year in Canada.

Across Canada, about **20,000** patients undergo nuclear imaging procedures every week, and the field of nuclear medicine is growing around the world.

Nuclear Medicine

Nuclear medicine uses radioisotopes to provide diagnostic information about the functioning of a person's specific organs or to treat them. Thanks to Canadian innovation, diagnostic procedures that involve radioisotopes are now used routinely worldwide.

Nuclear medicine offers non-invasive imaging of biochemical changes in your body. Radioisotopes can reveal how organs and bodily systems are functioning, not just what they look like, as with X-rays.

- **30,000** times per week that doctors use isotopes in nuclear imaging to quickly and accurately diagnose illness.
- **40+ million** nuclear medicine procedures performed each year.
- **Over 10,000** hospitals worldwide use radioisotopes in medicine, and about 90% of the procedures are for diagnoses.
- **$4 billion:** the current valuation of the global business of medical isotopes, which is projected to grow by 5% every year.