



Gamma Knife beams in Alberta

The future is here! What was once perhaps thought of as science fiction technology is now a reality in Alberta as the University of Alberta Hospital has introduced the leading edge Gamma Knife in Alberta.

The 20-tonne apparatus offers intricate treatments for neurological patients. The Gamma Knife provides pinpoint accuracy, allowing surgeons to access hard-to-reach portions of the brain and remove entire tumours.

"Can zap an area as small as one millimeter without damaging surrounding tissue."

It uses Cobalt-60 as its source of gamma radiation. Almost 200 individual beams of radiation can converge and pass through brain tissue, providing enough energy to halt proliferating cancerous cells. It can zap an area as small as one millimeter without damaging surrounding tissue.

"Almost 200 individual beams of Cobalt-60 gamma radiation can converge and pass through brain tissue"

This state-of-the-art technology providing new options for people with brain tumours, malformations and even disorders like Parkinson's. Traditional surgery would require treatment having doctors peel back layers of scalp, exposing greater risk. With no need to open the skull, patients are spared scalpels, general anesthetic, blood loss, infection risks and prolonged recoveries, and can typically return home the same day.

"Together with 3T MRI, provides amazing precision from research to diagnosis to operating room"

Together with the Gamma Knife, a research 3T MRI, and the already in-place 3T Intraoperative MRI, the U of A Hospital's Brain Centre stands

as one of the very few Brain Units in the world than can provide 3T precision from research to diagnosis to the operating room.

Bringing the \$17.5-million Gamma Knife to Alberta was made possible through donations to the University of Alberta Hospital Foundation. This includes a \$3 million donation from Jim and Sharon Brown and Guy and Shelley Scott, and the naming of the Scott and Brown Families Advanced Imaging & Gamma Knife Centre. [VP](#)

Did you know ...

On November 25, 1884, Mr. Rickman J. Godlee performed the first recognized resection of a primary brain tumor.

