Alberta Radiosurgery Centre

Alberta Cancer Board

calgary health region

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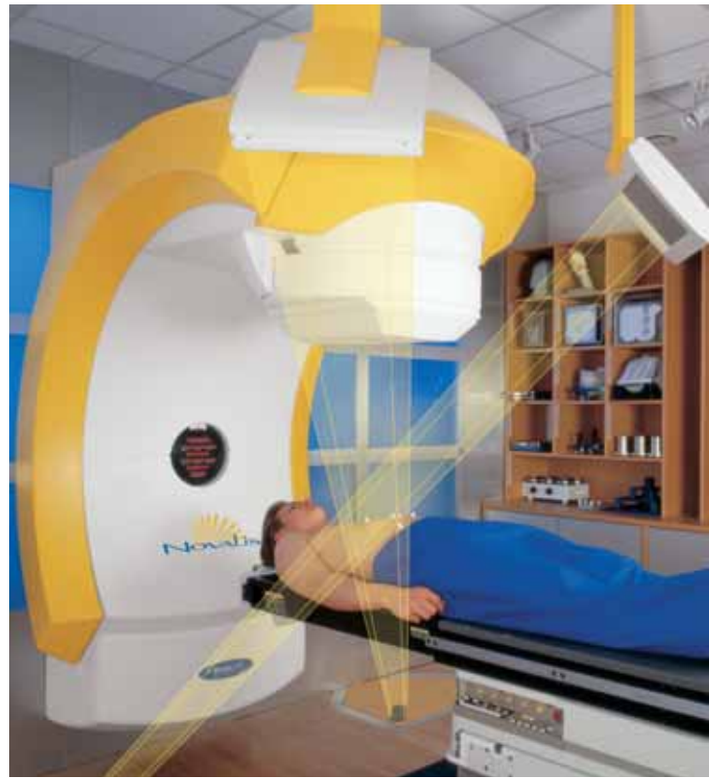

NOVALIS
Shaped Beam Surgery

Who are candidates for Novalis treatment?

Novalis can be used to treat cancerous and noncancerous brain tumours, that have spread from other parts of the body, recurrent brain tumours, functional brain disorders, uncontrolled seizures, head and neck tumours and other tumours within the body, such as the liver, lung, prostate and spine. However, not all patients may be candidates for treatment with Novalis.

Before deciding on treatment with Novalis, a review of your medical history is done by your team of doctors. All available treatment options are considered and the choice of treatment will depend upon your particular diagnosis, tumour or lesion size and location, as well as your personal treatment preferences. You may have more than one treatment option, including Novalis.

What is Novalis Shaped Beam Surgery?

Novalis is a state-of-the-art treatment device for patients undergoing stereotactic radiosurgery or stereotactic radiotherapy. Stereotactic radiosurgery is applied in a single session with a high dose of radiation. Stereotactic radiotherapy is given in a series of treatment sessions over a specified period of time.

With Novalis, the radiation beams are shaped to match the exact contour of the tumour or lesion so that even irregularly shaped tumours or lesions can receive doses of radiation exactly as prescribed. Sophisticated computer software calculates the ideal access points to the tumour or lesion and defines the treatment plan.

Novalis was first implemented for the treatment of brain tumours or lesions, where pinpoint precision is required to focus radiation treatment on tumours or lesions close to critical structures within the brain. Now, experts are taking advantage of the accuracy of Novalis to treat other areas of the body to improve and increase the range of a patient's available treatment options.

During treatment, Novalis steadily moves around the patient's body so that the radiation penetrates the tumour or lesion from different angles. While the tumour or lesion receives the full dose of radiation, the surrounding healthy tissue is protected from the radiation. This reduces potential damage to delicate structures such as the brainstem or spinal cord.

What are the benefits of Novalis for the treatment of tumours?

There are several reasons why you might want to consider treatment with Novalis:

- Novalis is extremely precise and radiation damage to normal tissue is minimized.
- Novalis makes sure that the tumour or lesion receives an even distribution of the prescribed radiation dose by shaping the beam to accurately match the outline of the tumour or lesion.
- Novalis is one of the most technologically advanced procedures available today.
- Novalis is non-invasive, with minor incisions for cranial procedures, resulting in no scarring or disfigurement.
- Novalis is virtually painless and treatment is usually performed on an out-patient basis.
- Novalis allows for a complete treatment session to take place in a single-day, although your doctor will decide if your treatment will be given in a single dose.