

Informed Consent

Informed consent is an important process before the start of radiation therapy. As any cancer treatment involves certain risks, it is important for patients to understand the benefits and risks of the recommended therapy before the initiation of the treatment.

Through the process of informed consent, patients are informed about the purpose of the treatment, the technique or approach to be used, and the outcome and potential adverse effects to be expected.

Patients are usually required to sign a consent form before planning radiation therapy. Signing the consent form indicates that the patient fully understands the therapeutic process and associated benefits and adverse effects, and agrees to accept the recommended treatments and their consequences. However, if questions or concern about the treatment arise after signing the consent form, patients should not hesitate to direct them to the attending physicians.

About RTC@NCIS

Established in 1999, the Radiation Therapy Center of the National University Cancer Institute, Singapore (RTC@NCIS) houses state-of-the-art facilities and an internationally-trained team of radiation oncologists, therapists, physicists, nurses and healthcare professionals. Dedicated to providing holistic and specialized care, RTC@NCIS aims to be one of the world's leading comprehensive cancer centres, dedicated to the prevention, management, and cure of cancer.

Online Resources

National University Cancer Institute, Singapore (NCIS)

www.ncis.com.sg

American Cancer Society

www.cancer.org

American Society of Clinical Oncology

www.cancer.net

Macmillan Cancer Support

www.macmillan.org.uk

Contact Information

**National University Cancer Institute, Singapore (NCIS)
Radiation Therapy Centre (RTC)**

5 Lower Kent Ridge Road Singapore 119074
(Kent Ridge Wing, via Linkway on Level 4)

Opening Hours: 8:30am – 5:30pm (Mon- Fri)
(except on Public Holidays)

For appointments, please contact

Tel: (65) 6772 4870/4854 Fax: (65) 6779 4062

Email: CancerApptLine@nuhs.edu.sg

For International Patients and Visitors

The International Patient Liaison Centre (IPLC) is a one-stop centre to support all the medical needs of our foreign patients.

Tel: (65) 6779 2777 (24-Hours Helpline) Fax: (65) 6777 8065

Website: www.nuh.com.sg/iplc

National University Cancer Institute, Singapore (NCIS)

1E Kent Ridge Road,
NUHS Tower Block, Level 7, Singapore 119224

Tel: 6772 4811 Fax: 6872 3137

Email: ncis@nuhs.edu.sg

Website: www.ncis.com.sg



National University Hospital

5 Lower Kent Ridge Road, Singapore 119074

Tel: 6779 5555 Fax: 6779 5678

Website: www.nuh.com.sg

Free Shuttle Bus Service

Free Shuttle Bus Service from Dover MRT Station to NUH

Operation hours : 8.00 am – 8.30 pm (Mondays – Fridays)
: 8.00 am – 2.00 pm (Saturdays)
Not available on Sundays and Public Holidays

Dover/NUH passenger pickup/ drop off point : 1. Dover MRT Station (opposite Singapore Polytechnic)
2. Main Building, Lobby Entrance (near roundabout)
3. Kent Ridge Wing, Level 3, South Entrance

For more information on Shuttle Bus schedule, log on to www.nuh.com.sg

NEW! Circle Line Kent Ridge Station opens on 8 October 2011

Commuters can transit at the Buona Vista MRT Interchange and alight two stops after at the Kent Ridge Station, right at the door step of the NUH's Main Building. The NUH Shuttle Bus Service between Dover Station and NUH will cease on 1 Nov 2011.

Information in this brochure is given as a guide only and does not replace medical advice from your doctor. Please seek advice from your doctor if you have any questions related to the surgery, your health or medical condition.

Information is correct at time of printing (Aug 2011) and subjected to revision without notice.

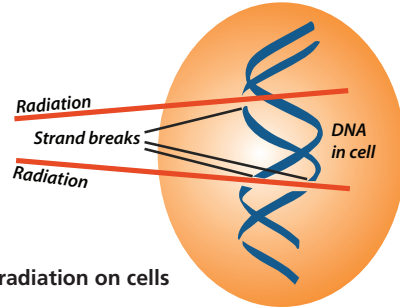
Patient Information on Stereotactic Radiotherapy and Radiosurgery

NEW LIFE, NEW HOPE



What is radiation therapy?

Radiation therapy treats cancer by using high-energy X-rays generated from a radiotherapy machine to destroy the cancer cells. It inhibits cancer cells from multiplying by delivering ionizing radiation to destroy cancer cells whilst sparing normal tissues. When these cancer cells die, the body naturally eliminates them. Healthy tissue is then able to repair itself in a way cancer cells cannot, and are hence spared.



Effect of radiation on cells

Radiation therapy can be delivered in two ways, externally (external beam radiation therapy) and internally (brachytherapy). The type of radiation therapy prescribed by a radiation oncologist depends on the location, size and type of cancer.

What is Stereotactic Radiation?

Stereotactic radiation is a type of external beam radiation therapy. It uses extremely focused radiation beams to destroy tumours or cancer cells with higher accuracy. The accuracy is partly achieved by immobilisation of the head or body during treatment. It differs from conventional radiotherapy because it kills the tumor in a few potent doses while delivering little radiation to the surrounding healthy tissue.

Specially trained radiation oncologists are able to deliver high doses of radiation precisely, sparing the surrounding normal tissues. Whether you require a single treatment or multiple treatments depends on the size and type of tumour.

The two types of stereotactic radiotherapy are Stereotactic Body Radiotherapy (SBRT) and Stereotactic Radiosurgery (SRS).

What can I expect for Stereotactic Body Radiotherapy (SBRT)?

- During treatment, you will be positioned on the linear accelerator.
- You are required to be secured with the help of body moulds or head masks to ensure precision treatment.
- To further ensure precise tumour localisation, PET, MRI or CT scans will be performed before treatment.
- Given in a few treatments (typically 3 to 5), the entire treatment course for SBRT is significantly shorter than conventional fractionation radiotherapy.
- Treatments are painless and usually last about 30 minutes.

What are the common conditions treated with SBRT?

- Primary lung cancer and liver cancer.
- Solitary lung and liver metastasis.
- Primary spinal tumour and cancer metastasis to spine.
- Patients who are medically unfit or decline surgery.

What can I expect for Stereotactic Radiosurgery (SRS)?

- During treatment, you will be positioned on the linear accelerator or linac.
- You are required to wear the head frame which will be fixed to the linac couch to ensure precision treatment.
- To further ensure precise tumour localization, MRI or CT scans will be performed before treatment.
- Due to the sensitivity of the treatment area, SRS is frequently given in a single dose. However certain cases might require more than one dose.
- Treatments are painless and usually last about 30 minutes.

What are the common conditions treated with SRS?

- Primary brain tumours
- Brain metastasis
- Benign tumours
- Abnormal blood vessels in the brain
- Nerves causing severe pain

What are the benefits of SBRT and SRS?

- Relatively short treatment process
- Side effects are minimised due to the precise delivery of radiation beams
- Short recovery time

Are there any side effects?

- Discomfort in specific treatment area
- Fatigue
- Nausea
- Skin reaction
- Rib fracture

Some patients may develop short term memory loss after treatment and in a small number of patients severe brain injury can result from the treatment. Many of these side effects can be controlled with medications. Inform your doctor or nurse if you are experiencing any discomfort so they can help you feel better.

How should I care for myself during radiation therapy?

- Get plenty of rest during treatment.
- Advise your doctor about any medications or vitamins you are taking, to make sure they are safe to use during radiation therapy.
- Eat a well-balanced diet.
- Stay out of the sun, avoid hot or cold packs, only use lotions and ointments after checking with your doctor or nurse and clean the area with warm water and mild soap.
- Battling cancer is tough. It may help to join a support group.

What can I expect at Radiation Therapy Centre@NCIS?

Before Treatment

- A radiation oncologist will review your current and past medical records, family history, medications, allergies and lifestyle.
- Simulation of your treatment area which involves measurement of the body and marking of skin or immobilisation devices, is done to ensure accuracy.
- Your treatment plan will then be reviewed and developed by a professional team.

During Treatment

- At the start of treatment, you will be positioned on the Linear Accelerator.
- Once positioned correctly, the therapist will monitor your treatment process via the control room.
- Communication with the therapist is possible through the two-way microphones in the treatment room and the control room.
- Treatment can be stopped at any time should you feel unwell or uncomfortable.
- Throughout the procedure you will be awake and will not experience any pain.
- Depending on the response of the tumour, your treatment plan may be modified.
- Weekly consultation will be scheduled with your radiation oncologist to monitor your progress, side effects and address your concerns.

After Treatment

- Follow-up appointments will be scheduled to ensure your recovery is proceeding normally.
- As time goes by, the number of appointments will decrease, but your treatment team will always be available to assist you.