

Informed consent

Informed consent is an important process before the start of radiation therapy. Through the process of taking consent, we will discuss the purpose of the treatment, the technique or approach to be used, and the outcome and potential adverse effects to be expected. If questions or concerns about the treatment arise after signing the consent form, you should not hesitate to ask one of our staff for clarifications.

Clinical Trials

Clinical trials are research studies exploring new ways to improve treatment for cancer patients. Today's radiation treatments are the result of clinical trials completed years ago proving that radiation therapy kills cancer cells and is safe long term. For more information on clinical trials, please visit: www.ncis.com.sg

About RTC@NCIS

The Radiation Therapy Centre of the National University Cancer Institute, Singapore (RTC@NCIS) provides comprehensive radiation therapy services for patients by internationally trained radiation oncologists, radiation therapists, physicists, nurses and other healthcare professionals. The centre is the only accredited radiation oncology training centre for the Fellowship of the Royal Australian and New Zealand College of Radiologists (RANZCR) outside of these two countries.

Online Resources

www.networkofstrength.org

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.

Radiation Therapy for Head and Neck Cancers

NEW LIFE, NEW HOPE



What are the types of head and neck cancers?

Head and neck cancers begin in the cells that line the mucosal surface in the head and neck area, and are further identified by the areas in which they begin:

Oral – Lips, front two-thirds of the tongue, gums, lining inside the cheeks, floor of the mouth under the tongue, the hard palate, and small area behind the wisdom teeth

Laryngeal – Cartilage and tissues located just below the pharynx in the neck.

Nasopharyngeal – Upper part of the pharynx, which is behind the nose.

Oropharyngeal – Middle part of the pharynx, includes back of mouth, base of the tongue, and the tonsils.

Hypopharyngeal – Lower part of the pharynx.

What are the symptoms of head and neck cancers?

Oral

- White or red patches, and ulceration on gums, tongue, or lining of mouth
- Swelling of the jaw
- Unusual pain or bleeding

Laryngeal

- Prolonged throat pain when swallowing
- Hoarseness of voice
- Ear Pain

Nasopharyngeal

- Frequent headaches
- Neck lump(s)
- Nasal bleeding or blood in sputum
- Pain or ringing in ears
- Reduced hearing

Oropharyngeal/ Hypopharynx

- Ear or throat pain

Which treatment is suitable?

Nasopharyngeal cancer

- Radiation therapy is the most important treatment method for nasopharyngeal cancer. Many patients may also benefit from the addition of chemotherapy to radiation therapy.
- Intensity Modulated Radiation Therapy (IMRT) is the current radiation technology of choice as it allows treating the tumour with high-dose radiation, while sparing normal organs such as the brain and salivary glands.
- Nasopharyngeal cancer is highly curable with radiation therapy if discovered early.

Oropharyngeal and hypopharyngeal cancer

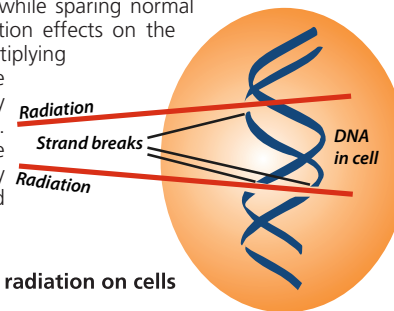
- Radiation therapy, with or without chemotherapy, plays a major role in the treatment of cancers of the oropharynx and hypopharynx.
- As these diseases are often diagnosed in more advanced stages, surgery may be needed but may cause excessive functional abnormality.

Oral and laryngeal cancer

- Cancers originated from larynx, lip, and oral cavity including the tongue can be treated with surgery or radiation alone in their early stages.
- Radiation therapy is often used with chemotherapy for advanced diseases, with or without surgery.

What is radiation therapy?

Radiation therapy treats cancer by using high-energy X-rays generated from a radiotherapy machine to eradicate cancer cells. It inhibits cancer growth while sparing normal tissues by ionizing radiation effects on the DNA of actively multiplying cancer cells. 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 Treatment Planning

You will be required to undergo CT simulation, which will allow us to see a detailed radiological image of the area to be treated, and allow calculations and treatment planning to be performed. In most cases, a customized mask (also known as a shell) will also be made at the same time. This will be used during each treatment session to maintain your body position.

Contrast dye may or may not be administered through an injection for the purpose of enhancing the clarity of the CT images.

After Radiation Treatment

You will be given a follow-up appointment to consult a radiation oncologist in about 2-4 weeks after treatment. Follow-up is an important part of the management of the disease and can help to detect recurrence early and to help manage the side effects of radiotherapy.

What are the potential side effects?

- Redness, irritation and sores in the mouth
- Dry and thickened saliva
- Difficulty in swallowing
- Change/loss in taste
- Swelling of soft tissues
- Change in texture of skin
- Fatigue

Many of these side effects can be controlled with medication. Please inform your doctor or nurse if you are experiencing any discomfort so that they can help you feel better. Late side effects, such as hardening of the neck skin, hearing loss, or decrease in thyroid hormone levels, can occur months to years after treatment in some patients. There are other rare side effects, such as damage to nerves or the jaw bone, which may affect <5% of our patients.

How should I care for myself during radiation?

- Avoid hot, spicy and acidic food.
- Avoid alcohol and smoking.
- Eat soft food with a high liquid content eg: ice cream, congee or soup.
- Use the gargle / medication prescribed.
- Eat a balanced diet.
- Eat small frequent meals.

Consult your radiation oncologist for the need to be referred to a dietician. If you are smoker, we strongly encourage you to quit smoking.

Dental care and oral hygiene during and after treatment

Dental care and oral hygiene are very important for head and neck cancer patients who plan to receive radiation therapy. Dry mouth and inflammation caused by radiation may change the environment in the mouth and increase the risk of mouth infections.

The following steps are recommended for maintaining oral hygiene and dental health:

- Go for a dental evaluation and treatment prior to the start of radiation therapy.
- Use a toothbrush with soft bristles.
- Rinse mouth with baking soda and salt gargle, and avoid alcohol containing gargle.
- Use non-shredding dental floss at least once a day.
- Use fluoride treatment to the teeth according to the direction of your dentist.
- Follow up regularly at six monthly interval with your dentist after the completion of radiation therapy treatment.