Patient information

Reconstructive Surgery for Osteoradionecrosis (ORN)

Liverpool Head and Neck Centre

This information has been designed to explain what is necessary and the outcomes for those patients having reconstructive surgery for osteoradionecrosis (ORN). It contains answers to many frequently asked questions.

Why is reconstructive surgery necessary?

The bone is so badly damaged by the radiotherapy that only living new bone will allow the jaw to heal. Living grafts are called free flaps.

Which patients tended to have reconstructive surgery?

The damaged bone and soft tissues cause severe pain. Some patients require very strong painkillers such as morphine. The pain is often worse when the bone breaks (fractures).

As the dead bone and chronic infection progresses some patients find it increasingly difficult to open their mouth. Sometimes the infection drains outwards through the skin of the face and occasionally bone can be seen. Repeated chronic infection can lead to a gradual deterioration in fitness and well-being. Unfortunately, there are long-term side effects of radiotherapy which reconstructive surgery cannot improve such as dry mouth, chewing, speech and swallowing difficulties.

What reconstructive surgery options are available?

Usually, bone and skin are used to replace the damaged jaw. The bone can be taken from the back (scapula), hip (DCIA), leg (fibula) or arm (radial). There are side-effects of taking bone from elsewhere (donor site pain / discomfort also known as donor site morbidity) and there are separate patient information leaflets to read on this.

What takes place at the operation?

Typically, the operation can take eight - ten hours as there are many steps.

First a urinary catheter is placed (this is a tube passed into the bladder) to gain an accurate assessment of fluid balance and to allow the bladder to empty. It is typically in place for a few days until you can get out of bed and to the toilet.

A temporary breathing hole is then made (tracheostomy) in the midline of the neck just below the Adams apple. This is to make sure your breathing is safe during and after the operation. The tracheostomy typically stays in for three to five days.

The tracheostomy may feel uncomfortable when you wake up and something perhaps most disliked by patients but is very safe. Although you will not be able to verbally communicate you will be able to communicate using pen and paper.

The next step is to find a suitable artery and vein in the neck to provide a blood supply and drain the graft. Sometimes the tissue on the side of the ORN is so poor the other side of the neck is used. In this case the incision used to remove the jaw is carried round to the other side too.

The damaged piece of bone is removed, and a bone plate placed. The new graft is taken and the vein and artery or blood vessels are joined to the vessels in your neck.

What is the success of the surgery?

After a period of post-operative recovery, most patients go back to a life as before the surgery but with the considerable benefit of reduced pain and no active infection. This leads to an improvement in quality of life.

The success rate of the graft is around 95% and the outcomes generally very good. If the graft does not work, it might be that no new tissue is possible.

Patients can be left with a hole, and this can be managed by a prosthesis (an artificial appliance designed to restore the part that cannot be reconstructed or repaired surgically) About one to two percent of patients have a very serious event whilst in hospital over the first 30 days and unfortunately this carries a threat to life.

The plate used to hold the graft to the jaw whilst it heals can become infected. This occurs in around 20% of patients and for some their plate needs to be removed, typically a year or so post-operatively.

Further ORN either close to the area that has been removed can occur and further small operations might be needed to remove dead bone fragments. Very occasionally ORN can arise in the other side of the jaw.

Those patients with pre-existing swallowing difficulties can have additional problems. There can be a need for a new feeding tube if swallowing is made worse. This could also cause chest infections if saliva and liquids go into the lung (aspiration).

What other outcomes can be expected?

The outcome for patients can be considerably different. With such extensive surgery there will be scarring, altered facial appearance and difficulty with mouth opening. Also, the way you bite together might be different in the future, through the Liverpool Head and Neck Centre website, we hope to include some patient stories to share their lived experience of ORN surgery.

What is required in preparation for surgery?

Because of the complex and individual nature of the surgery it is important to have multi-professional support. This multidisciplinary support is also part of the post-operative care and recovery too.

Those involved include:

Head and Neck Clinical Nurse Specialist

This nurse has experience in the care of patients having reconstructive surgery for ORN. They will be able to advise both the patient and carers about what to expect.

Dietician

Nutrition is essential for good healing and recovery. The dietician will help guide patients and carers as the best way to get the best and balanced food intake.

Speech and Language Therapist

Speech and swallowing can be compromised before and after surgery. The therapist will be able to give individualised assessments and advice as to what to expect.

Physiotherapist

It is important to be as fit as possible before surgery. The physiotherapist will be able to give advice on pre-operative exercise. Whilst in hospital the physiotherapist will give treatment to reduce the possibility of chest infection and support early mobilisation.

Emotional Support Therapist

There are natural anxieties about having major surgery. The emotional support therapist will be able to help the patient and carers cope during this difficult time.

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated. Your co-operation is greatly appreciated.

Further information

Head and Neck Team Contact Details:
Tel: 0151 529 5256
Email: headandneckcns@liverpoolft.nhs.uk

Support Groups:

Merseyside Head and Neck Cancer Patient and Carer Support Group (HaNC for short)

If you would like further information about the HaNC Support Group, please contact:Mike McGovern (HaNC Support Group Chair) on 07982 408171 or mikemcgovern54@aol.com, the Clinical Nurse Specialists or visit our social media page on Facebook (@HaNCCommunity) and Twitter (@HaNCCommunity)

Warrington and Halton Patient Head and Neck Cancer Support Group is an independent self-health group for people living with or affected by cancer of the head or neck. You are very welcome to join us at our regular monthly get togethers held at the Centre for Independent Living, Beaufort Street, Warrington, WA5 1BA.

For more information about the Support Group and details of meeting dates, please contact Dave Betts QPM on 07881 384365 or email davejbetts@gmail.com.

The Manx Swallows is a patient-led support group for patients and carers who have been affected by Head and Neck Cancer.

Contact details:

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"**The Swallows Head and Neck Cancer Group"** this group is designed to provide help with patients and carers.
The Swallows was formed by like-minded cancer patients to help and support fellow sufferers and their carers.
www.theswallows.org.uk

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All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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