

Oral & Maxillofacial Surgery - Temporomandibular Joint Replacement Surgery

Information for patients

Introduction

This information is about what a Temporomandibular Joint Replacement (TMJR) is, why you need it, what will happen before, during and after the surgery, including the potential side effects and risks. It will also cover what to expect with your new joint. There are some useful websites for you to look at prior to deciding to have a TMJR. These are listed at the bottom of this leaflet.

What is Jaw Joint Replacement surgery?

The Temporomandibular Joint (TMJ) is the jaw joint. A TMJR is similar to a joint replacement elsewhere in the body, such as a knee. It aims to improve the function of a degenerated or damaged joint by replacing the bony components with a prosthetic joint. It involves a short hospital stay and a recovery period afterwards.

Different surgeons use different types of TMJR, some are custom made and some are stock (non-custom) joints. A custom made TMJR is made to fit the patient from a pre-operative scan. A stock TMJR is a prosthesis that is available in different prefabricated sizes and shapes based on mean measurements of the TMJ.

The life of the prosthetic joint varies from person to person, depending on many factors, such as use of the joint and wear. In general, it is expected not to last a lifetime but on average over 10-20 years.

The lower jaw component is made from metal like Cobalt-Chromium-Molybdenum and Titanium alloy. The upper jaw component is made from ultra-high-molecular-weight polyethylene with or without titanium. All the screws are made from titanium alloy.

Why do I need a TMJR?

There are many indications for a TMJR, the exact reason will have been diagnosed by your specialist Oral and Maxillofacial surgeon. A common reason would be wear and tear of the joint causing degeneration.

However other causes could include ankylosis (fused jaw joint), failed previous joint replacement, post-traumatic jaw joint injury, reconstruction after tumour surgery, developmental abnormalities, functional deformity and severe inflammatory (e.g. rheumatoid) conditions that have failed to respond to conservative treatment.

Often, there would be a significant reduction in the function of your jaw, not involving any muscular problems.

What happens during the surgery?

TMJR is done while you are fully asleep using General Anaesthetic. The surgery is likely to take several hours. Where possible, all cuts to the skin will be in a skin crease to make them less visible. You will

have an incision in front of your ear, which can extend into the hairline, to expose the top part of the joint. Some surgeons may shave a small amount of your hair in order to gain access to this area.

Another incision is made below your lower jaw to access the lower part of the Joint. The degenerative/diseased part of your joint (in particular the mandibular condyle) will be removed to make space for the new joint. The joint disc will also be removed. The new joint components will be fixed into place forming your new jaw joint.

Often a small drain will be inserted to collect excess fluid such as blood. Alternatively, a bandage may be wrapped around your head. These will likely be removed the day after surgery.

What happens after the surgery?

It is likely that you will spend a few days in hospital. Once you are able to eat a soft diet and your pain is controlled you will be discharged. Often a post operative Xray is taken at this time.

In some cases, the joints may be at risk of dislocation for a few days after surgery. Your surgeon will discuss this with you and take some measures to avoid its occurrence.

Some surgeons use a device called a Therabite or Orastetch to help with post operative mouth opening and joint function. Your surgeon will discuss this with you if this is the case.

After discharge

Eating and drinking instructions will be given to you.

Time off work

No driving, signing legal documents or operating heavy machinery for 48 hours after a general anaesthetic. A sick note can be given to you upon discharge. Length of time away from work would be discussed based on expected time for recovery.

Exercising the new joint

You will not be able to move your jaw from side to side. Opening your mouth widely will be difficult for the first few weeks. It is important to practice opening and closing the mouth regularly. Exercises will be given to you to help improve your mouth opening.

Sport

It is advisable to avoid contact sports and very hard or sticky foods so that the life of the joint is prolonged. Protect the head and site of joint if trauma to the face is expected. Swimming should be avoided for the first four weeks. Discuss other forms of sport with your surgical team beforehand.

Follow up

You will be seen on the ward after surgery. An outpatient clinic appointment will be arranged for you with your surgeon after discharge. It is advisable to have regular reviews for up to five years after surgery.

General risks and side effects include:

Like other surgical procedures, there are some risks involved with joint replacement.

- Pain – recommended pain relief will be given to you. It is advisable you take it regularly for the first few days
- Bruising – this can affect eyes as well as the surgical sites and can last for several weeks
- Swelling – Ice packs can be applied and sleeping with your head slightly raised can help reduce it. Swelling can last several weeks
- Infection – Antibiotics are used during surgery and several other measures are taken to prevent wound infection. If there is any concern about infection (sudden increase in swelling, redness, pain or discharge) at any time after surgery, you should report immediately to your surgeon
- Bleeding – usually controlled during surgery. If it happens afterwards, it will be managed by the surgical team.
- Blood clots – measures will be taken during surgery and post-operatively to reduce the risk of blood clots forming.

Specific risks and side effects

You may experience:

- numbness to your face on the side of the surgery. This usually wears off without any intervention. It can take several months to recover. There is a very small chance it can be permanent. The nerve that supplies feeling to your earlobe can also be affected, resulting in numbness and tingling in that area.
- Weakness to the face. There is a risk that you can have weakness on the side of surgery. This can be temporary (20%) or permanent (3%). This can affect the entire side of the face or parts of it. Permanent weakness is defined as no recovery after 12 months.
- Infection of the prosthesis is an uncommon (2%), but serious complication, as it usually results in the joint being removed (and later replaced)
- It is usual for your bite to feel slightly altered and for you to hear new noises from your new joint. This should not cause you worry.
- Continued pain or no change to pain levels, as TMJ pain is multi-factorial and some pain may still come from the muscles around the joint.
- Inability to move your jaw from side to side. This is a mechanical property of a TMJR. Currently the design of a TMJR will not allow this movement.
- It is uncommon, but possible for an allergic reaction to components of the joint. Some surgeons may allergy test you prior to surgery.
- Ear problems can occur, including infection, perforation of the drum and inflammation of the ear canal.

Taking care of your new joint

Continue to see your surgeon for follow up appointments and inform of any problems.

It is important to follow post-operative instructions so that your joint functions well.

If you feel like you are clenching or grinding your teeth, this problem needs to be addressed to protect your joint.

How to contact us / Further information

Please contact the Oral and Maxillofacial department if you have any questions or need further advice.

Useful websites

Prior to having your TMJ replacement, in order to be fully informed, the following website may be looked at as it may help you make your decision about surgery and help you understand the potential outcomes and evidence around TMJR.

<http://www.zimmerbiomet.co.uk/>

<https://www.nice.org.uk/Guidance/IPG500>

<https://tmjconcepts.com/>

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