

# ORTHOGNATHIC SURGERY

When an individual's jaw or jaws fail to grow or develop normally their function and facial appearance can be affected. This may cause problems with jaw alignment, speech and eating.

Corrective jaw surgery (Orthognathic surgery) moves the teeth and jaws into a new position that is more balanced, functional and healthy with the teeth meeting normally. Orthodontics (braces) are required with the surgery to enable the teeth to be moved into the correct position.

If you are considering having orthodontic treatment and jaw surgery you may have a number of questions to ask and you may like to be informed of the process taken leading up to a decision to go ahead with such treatment.

## This leaflet will cover the following:

- Planning
- Orthodontic Treatment
- Surgery
- At home
- Psychological adjustment
- Known risks and complications

## Planning

Patients are seen on a joint clinic with an Orthodontist and an Oral and Maxillofacial Surgeon before they start their orthodontic treatment.

At this appointment there may be a few clinicians present and a careful clinical assessment is made using photographs, x-rays and study models of the teeth.

A treatment plan can then be obtained to allow optimum improvement and this will be discussed with you on this clinic. It is often necessary for patients to need their wisdom teeth removed before their main operation and if this applies to you, this will be arranged after this first joint clinic appointment.

## Orthodontic Treatment

Fixed braces are used prior to jaw surgery as they allow the teeth to be positioned accurately prior to the operation. This is followed by the surgery (when the braces remain in place) and then some final orthodontics.

Orthodontic fixed braces are normally worn for approximately 2 years before your operation to allow your teeth to be moved into the correct position for surgery. The braces are left on the teeth for the surgery and then are also kept on after surgery for a few months (approx 6 months) to ensure that the teeth fit together well and to ensure that the jaws are properly aligned. It is often necessary to use small elastics inside your mouth between the upper and lower braces to help this process. The gums and teeth must be healthy prior to fixed braces being placed and sometimes dental treatment needs to be carried out before treatment can begin. Orthodontic appliances are usually adjusted between every 6-8 weeks over the entire treatment period. You will be seen again on a joint clinic when you are ready for surgery for final surgical planning and to be given a date for surgery.

## Surgery

Surgery is carried out under general anaesthetic and may take from one to three hours depending on the nature of the surgical procedure. Surgery is usually done from inside the mouth and therefore there are no visible external scars. Occasionally a small external approach will be necessary under your chin and this would be discussed prior to commencement of treatment.

After surgery you will be looked after by specialist nurses and returned to your ward only after recovery from the anaesthetic. You can expect some swelling and bruising which is usually worst during the 1<sup>st</sup> week. You may also have an intravenous line in your arm to administer medicine and fluid. Small drains are also sometimes placed to reduce the swelling – these are removed soon after the operation.

You may feel your nose is very blocked after surgery – this is normal. Nasal drops and inhalations may be prescribed.

Usually your jaws are held in their new positions by small plates and screws. The jaws are held together to prevent complete opening of the jaws by means of small elastic bands after the operation and your orthodontist will gradually alter these elastics over the few weeks after surgery.

Whilst in hospital you will be given help with feeding and cleaning the mouth. Your stay in hospital will vary according to the operation, but is normally 1-2 nights.

## At home

Swelling starts to reduce after 1-2 weeks although it can take several months for all of the swelling to completely resolve and there are changes to the skin/muscle to adapt to the new underlying bones. For the first week after surgery we advise a more or less liquid diet and this then changes to a soft diet for the following 5 weeks. You may require some dietary supplements during the first few days. Blenders are very helpful and food can be eaten frequently in small amounts. You will gradually progress to a normal diet over a few weeks and should be able to return to school or work over this time.

You will have painkillers and antibiotics to take which will prevent infection and pain. However it is also vital to keep your mouth as clean as possible and a mouthwash is required to help maintain good oral hygiene. Brushing of the teeth, gums and braces is also required and baby toothbrushes are advisable.



## Psychological adjustment

It will take time to adjust to the changes to your face. Patients often feel depressed in the week after surgery when discomfort can be at it's worst and swelling is most severe. It is normal to feel like this and most patients recover quickly. Your friends and family may also show surprise at the 'new' you, but you should find it a positive change.

## Known risks and complications

Certain side effects and complications are possible with orthognathic surgery. You need to understand these before you consent to surgery. Possible risks may include the following, and your surgeon can discuss these with you.

- 1 Swelling is a normal reaction to surgery but can vary between individuals. It usually increases in the first 72 hours and then starts to subside after approximately 1 week.
- 2 Nausea and vomiting may occur following a general anaesthetic. Medication may be given to help.
- 3 Pain is usually only moderate and can be controlled with medication. If it worsens you must contact the hospital.
- 4 Minor bleeding can occur following surgery. When a procedure involves the upper jaw this may result in oozing of blood from the nose. This is usually controlled in the hospital but if you should experience it when you get home you must contact the hospital.
- 5 Altered nerve sensation may result in numbness or a tingling sensation in the face, teeth or tongue. This occurs as nerves heal and regenerate. As healing takes place sensations of warmth/tingling may affect the areas in recovery. Some individuals however may experience permanent altered sensations especially where the lower jaw has been operated on.
- 6 Infection can occur following a surgical procedure. It is usually treated with antibiotics. When fever persists or pus develops you should contact the hospital.
- 7 Sinus complications such as sinusitis may occur when the upper jaw has been operated on. This should be reported to your surgeon.
- 8 Teeth/bridgework occasionally get damaged during surgery. This may require appropriate dental treatment.
- 9 TMJ (jaw joint) pain may occur following surgery and pre-existing jaw joint problems may be aggravated. Persistent limited movement is unusual.
- 10 Relapse of the new position is unusual. Sometimes additional treatment is required.



## Further Information

We endeavour to provide an excellent service at all times, but should you have any concerns please, in the first instance, raise these with the Matron, Senior Nurse or Manager on duty. If they cannot resolve your concern, please contact our Patient Experience Team on 01932 723553 or email [asp-tr.patient.advice@nhs.net](mailto:asp-tr.patient.advice@nhs.net). If you remain concerned, the team can also advise upon how to make a formal complaint.

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