

A guide for patients considering orthognathic jaw surgery

What is orthognathic surgery?

Orthognathic surgery is an operation to reposition the jaws. (Ortho means straighten, gnathia means jaw in Latin). The operation aims to correct imbalance between the upper and lower jaws which will enable the teeth to bite together correctly; this also has the benefit of balancing and enhancing the facial appearance.

Why is surgery needed?

We only perform jaw surgery if it is appropriate and if the patient wants it to be done. It is rarely essential to carry out this type of surgery.

However, it is not always possible to correct your teeth and how they bite together using only orthodontics. This is because the bones of your face and jaws, in which the teeth sit, may be out of balance with one another. (For example, you may have a larger lower jaw and a normal sized upper jaw). Orthognathic surgery is able to correct larger jaw discrepancies and balance the shape of the face.

Why do I need some orthodontic treatment as well as surgery?

It is important to use braces to move the teeth to make sure that they will meet together correctly after the operation. Usually, fixed 'train-track' type braces are fitted about 18 months before surgery. They are worn for up to 6 months afterwards until the teeth are finely adjusted and stabilised. Lastly, there will be a period when a removable retainer brace is worn that holds the teeth in their new position.

How long will the treatment take?

In total, treatment may take about two and a half years, with the surgery about 18 months from the start of orthodontics.

Please note that the period of orthodontic treatment is lengthened by missed appointments and any breakages of the brace.

Is the operation painful?

The main problem after surgery is numbness and swelling rather than pain, and the combination of numb lips and swelling makes the swelling seem worse than it actually is. Everybody is different, but most patients find the swelling is at its worst 36-48 hours after the surgery and it gradually goes down over the next fortnight.

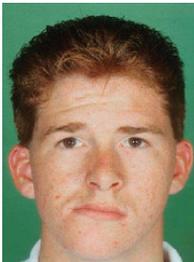
Your final appearance takes several months to fully emerge as the shape of your face adjusts (only close friends and relatives will be aware of these subtle changes). Patients may find it uncomfortable breathing through their nose and may have a sore throat after

surgery and most feel uncomfortable and 'sorry for themselves' for a few days. In our experience older patients seem to find these symptoms worse and take longer to get over the operation than younger patients.

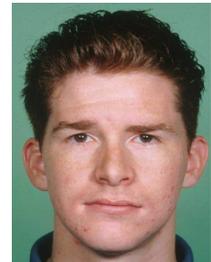
Examples of changing faces



Patient with strong lower jaw
Jaws repositioned in balanced position



Patient with lower jaw deviated to the
right side of his face
Jaw repositioned in central position



Patient with weak lower jaw and long
face



Jaws repositioned in balanced position



Examples of changing teeth



Patient with deep bite and irregular teeth

Jaws repositioned and bite and teeth corrected



Patient with strong lower jaw and reverse bite

Jaws repositioned and bite and teeth corrected



How long will I be in hospital?

This depends on the individual but most patients stay in hospital for one or two nights after surgery. People vary in their speed of recovery, but you should consider taking between two and four weeks off from whatever you normally do.

What does the operation involve?

The operation is all done from inside the mouth, so there are no external scars. On very rare occasions the surgeon may need to make a 2mm cut on the angle of your jaw, but this is usually virtually invisible a few weeks after surgery. The jawbones are repositioned and secured by tiny plates and screws, which remain under the gum. The teeth are not normally wired together but small elastic bands are used between the top and bottom brace to guide the teeth into their new bite.

Can I eat normally after surgery?

The mouth opens and closes normally, even on the day of surgery, but the opening is limited by the elastic bands and swelling. You will be encouraged to eat and drink from the first day and gradually progress from soft, mushy food to a normal diet over the next few weeks.

What are the risks or complications associated with this procedure?

This is usually a very safe procedure which is carried out regularly in this hospital by specialised and experienced clinical staff. Complications in this type of surgery are, fortunately, rare and may not apply to you but it is important that you are aware of them.

Numbness - The lips will be numb immediately after the operation, similar to the sensation of an injection of local anaesthetic at the dentist. The upper lip recovers

quickly. The lower lip is much more variable and may take 6-9 months to get its normal feeling back.

Very rarely sensation never completely returns.

(The lip still looks and moves normally and only exceptionally does it bother patients).

Infection - The tiny fixing plates are usually left in place permanently. In less than 10% of cases the plates may have to be removed if they become infected but this is usually after they have done their job.

Re-adjustment of the bite - In rare circumstances the bite may require adjusting. This sometimes occurs when the patient wakes up from the relaxed state of the anaesthetic and the strong jaw muscles move the bite. Although the bite may only be a few millimetres out of place, a second operation to adjust the plate fixation may be necessary.

Relapse of the operation - With most patients significant relapse is not a problem. However those who are having complicated surgery (movements of 10mm or more in one jaw, patients previously having had a cleft palate, or those with a particularly unusual bite) a relapse can occur. If relapse does occur, it is exceptionally rare for this to be significant.

Will I look different after the surgery?

You will almost certainly look different to some degree; quite how different depends on the extent of your original problem and how much the jaw(s) have had to be moved. Orthognathic surgery aims to balance the bony framework of the face, so that all the features are in proportion to one another, producing a pleasing facial appearance and teeth that chew properly.

The vast majority of patients are delighted with the results and, although there may be some difficult times during the treatment, once it is done the benefits will last you a lifetime.

Is there an alternative?

YES, don't have the operation. Nobody wants you to have the operation unless YOU want it. There are always new developments in medicine but, at the moment, this is the most successful and reliable method of correcting your type of condition.

Contact us

For further information and enquiries, please contact:

Maxillofacial & Orthodontics Unit

Tel: 01342 414300