Sagittal split osteotomy and bi-maxillary osteotomy

Definition and explanation
These procedures are operations to improve the balance between the upper and lower jaws. A sagittal split osteotomy involves repositioning the lower jaw (mandible) and the upper jaw (maxilla) is corrected with a bi-maxillary osteotomy.

Whilst asleep under anaesthetic, a tube is placed through the nose to the back of the throat and this helps you breathe. You can often experience minor nose bleeds afterwards because of the mild trauma caused by the tube on the lining of the nose.

Any incisions are made through the gum in order to gain access to the jawbones. Any stitches used to close the gum are dissolvable and these can take two weeks to come out. Small metal plates and screws are usually used to secure the upper or lower jaw in its new position. The metal is titanium which is not detected by metal detectors, such as those used in airport security.

What does the operation consist of?
- The operation is carried out under general anaesthetic and can take about two hours.
- The surgeon may place one or two wound drains in the jaw area. These are sealed devices that drain unwanted fluid and blood from the surgical site.
- You will wake up in the recovery area of the theatre department and be closely monitored by the nursing staff. You will be given any medication to relieve any pain or sickness and you will probably have a drip (intravenous fluids) to hydrate you. The drip will be taken down once you are able to drink enough fluids.

What happens back on the ward?
- Upon return to the ward, you will need to rest in bed, as you may well feel sleepy from the anaesthetic and dizzy from the surgery. It is strongly advised not to leave the ward area as you may feel unwell.
- Your condition will continue to be monitored with any medication to keep you comfortable. These can be given in liquid form, or if necessary as injections or suppositories (in the back passage).
- You will be nursed propped-up in bed, as this helps breathing and reduce any neck swelling.
- Your face can feel swollen and tight, your jaws can feel stiff and opening your mouth will be difficult. A cold compress can help. Swallowing can feel difficult. These symptoms generally begin to reduce after the second or third day. Staff will actively encourage you to drink as much as possible as this helps you to recover more quickly.
- You can have the occasional nose bleed. This is due to mild trauma from the nasal tube that was used whilst you were asleep under anaesthetic. Ice can help stop any bleeding.
- You may receive a short course of antibiotics given into the vein (intravenous); these help prevent infection.

Discharge advice
- Your doctor will advise you on a specific period of recovery but in general three to four weeks rest is recommended. If you need a sick certificate, please ask the medical staff before you leave the ward.
- You will be given medication for pain relief and may also need to complete a course of antibiotics, to prevent infection. The nurses will discuss with you how and when these should be taken. A cold
• Compress can help ease any swelling and discomfort or pain, and sleeping or resting propped-up helps to reduce swelling.
• You need to keep your mouth clean by using the prescribed mouthwash and/or warm salt water rinses (one teaspoon of salt in one glass of warm water) at least three to four times per day, but always after meals. Brush the teeth you can reach at least twice a day. It may be easier to buy a child toothbrush as it is smaller to use.
• You should follow a healthy diet, consisting of soft or sloppy foods, as chewing will be very difficult and can cause unwanted strain on the jaw. For some, a liquidised diet is needed. The ward dietician will give you advice with regards your diet before you leave.
• Any minor nasal bleeding (from the nasal tube used in anaesthetic) can take about one week to completely settle. If you experience a heavy nose bleed, apply pressure by pinching the fleshy part of the nose and apply ice (a bag of frozen vegetables is a good alternative) to the forehead and bridge of the nose. Lean forward and try not to swallow any blood as this tends to make you feel sick. If it does not settle after 30 minutes, contact F5 ward for advice.
• If you experience any heavy bleeding from the mouth, apply pressure to the area with the use of a clean, rolled-up handkerchief for about 30 minutes. If it does not stop, contact F5 ward for advice.
• The surgery can cause bruising to the nerves that supply the upper and lower jaws. The top or bottom lip can tingle or feel numb, and this can take several weeks to disappear.
• If you smoke, it is best to stop or at least cut down. Smoking affects the body’s ability to heal and it will also irritate the inside of you mouth. Staff can advise you on how to quit, provide you aids to quit (e.g. nicotine patches) and contacts for support groups.
• Contact F5 ward if you have any concerns after discharge or if you experience worsening pain and swelling, raised temperature and/or uncontrollable bleeding from the mouth or nose.

Contact information
F5 ward: 023 8120 6511
023 8120 4644

NHS 111: 111

If you need a translation of this document, an interpreter or a version in large print, Braille or audio, please call 023 8120 4688 for help.