

Patient Education Animation for the Bilateral Sagittal Split
Osteotomy of the Mandible and Osseous Genioplasty

by
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2nd draft

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INT. PLAIN BACKGROUND

Fade in.

A standard 3D skull is visible slowly rotating in space.

NARRATOR

The skull: It provides the underlying framework of the face. Sometimes the mandible, or lower jaw, can under develop in relation to the other facial bones of the skull.

The mandible of the skull shown reduces in length to show the pathology.

NARRATOR

When such an under development causes problems, like difficulty speaking, eating, or with appearances, a doctor may recommend orthognatic surgery.

A face fades in briefly, matching the convex curvature of the skull, and then back out again.

NARRATOR

If you've received this animation from your doctor, you are probably considering a bilateral sagittal split osteotomy of the mandible, which from here on out, we'll just refer to as a BSSO. So let's move in to get a look at how this works.

The camera zooms in to the right ramus of the mandible, and the rest of the skull fades away.

NARRATOR

In your BSSO procedure, the surgeon will use specialized tools to create an incision, like so, on each side of the jaw through the hard exterior of the bone, avoiding the teeth.

Lines are drawn onto the mandible where the cuts will appear.

NARRATOR

The inner delicate bone and marrow are then carefully chipped away.

(MORE)

NARRATOR(cont'd)

Special care must be taken to avoid the nerve and artery coursing through to supply the chin.

The mandible's pieces slide away from each other and reposition more appropriately. Once the nerve and artery are mentioned, we see a brief flash of where these structures go.

NARRATOR

Once the bone is fully separated on both sides, it can be moved forward to a more fitting position. Plates and screws are then put in place to allow for natural bone regrowth between the pieces.

Plates and screws fade in to the scene and the screws drill into the plates.

NARRATOR

The corrected jaw will align upper and lower teeth as planned out in advance with your orthodontist.

Now, this procedure alone may be enough to restore the face's form, or depending on your individual needs, there may also be a second procedure - the osseous genioplasty.

In these cases, one more incision will happen here, and a chin is created by moving this piece of bone forward.

The incision line is shown like before, and the mental protuberance is moved forward.

NARRATOR

As with the BSSO, special care must be taken to avoid the artery and nerve. Risk to these structures is increased by including another incision, so you will have to talk to your doctor about the risk and benefit in your particular case. Once again, plates and screws will hold the new alignment in place, thus restoring facial function and form.

Plates and screws appear and the screws drill in to the bone.

The face is shown again, this time with a normal chin. An inset box labeled "before" is shown with the pre-surgical face. Both rotate in sync with each other.