SONOPET®
Ultrasonic Aspirator

Cranio-maxilliofacial procedure guide

Dacryo-cysto-rhinostomy

**DCR**

**Summary**

This procedure creates a new tear duct from the eye to nose when the existing tear drain is blocked. The surgeon inserts a small plastic tube to create an opening while healing occurs. After healing is complete in a few months, this tube is removed. Excessive scarring resulting from the procedure can require revision surgery, where a surgeon inserts a permanent glass tube.

**Surgical specialty**

- Otolaryngology
- Ophthalmic plastic and reconstructive surgery in teaching institutions ([www.asoprs.org/custom/directory/membership.cfm](http://www.asoprs.org/custom/directory/membership.cfm))

**High-level case flow**

- Raise flap to expose bone.
- Remove bone.
- Incise mucosa.
- Insert tubing stent.


**Tips used**

- Payner 360 Superlong
- Spetzler Open Angle Micro Claw Superlong

**Alternative**

- Punch, drill, shaver with bur

**Advantages**

- Speed (reduces time by approximately 15 minutes)
- Less effort

Craniosynostosis

**Cranial vault remodeling**

**Summary**

Craniosynostosis is a condition in which an infant’s skull sutures close too early, causing problems with normal brain and skull growth. Premature closure of the sutures may also increase pressure inside the head, changing the normal symmetrical appearance of the skull and facial bones.

**Surgical specialty**

Craniofacial surgery and neurosurgery (team) at children’s hospitals and pediatric teaching hospitals

**High-level case flow**

- Remove soft tissue.
- Detach bone flaps (locations depend on where skull sutures have fused).
- Reposition and secure with plating and screws.

**Tips used**

- Serrated knife
- Nakagawa serrated knife
- Serrated aggressive knife

**Alternative**

- Drill/bur, sagittal saw

**Advantages**

- Precision—more predictable, controlled
- Speed—faster cutting on thin bone
- Safety
Segmental Le Fort

Standard, two-piece or three-piece

Summary
Le Fort osteotomy is an upper-jaw procedure that involves sectioning and repositioning the maxilla—or upper jaw—to correct its abnormal position.

Surgical specialty
• Oral surgery
• Craniofacial plastic surgery
• Maxillofacial surgery

High-level case flow
• Remove soft tissue.
• Detach bone.
• Reposition and secure with plating and screws.

Tips used
• Knife
• Serrated knife
• Serrated aggressive knife

Alternative
• Reciprocating saw

Advantages
• Safer cut than reciprocating saw
• Sparing of soft palate
• Less chance of shattering bone or unanticipated fractures
• Less risk of injury to the internal maxillary artery and its branches

Bilateral sagittal split osteotomy

BSSO

Summary
This procedure is performed to correct a wide array of minor and major skeletal and dental deformities and irregularities, including the misalignment of jaws and teeth. Correcting these irregularities can greatly improve functionality of the bite, speaking and breathing. It reduces wear on teeth and can improve facial aesthetics.

Surgical specialty
• Oral surgery
• Craniofacial plastic surgery
• Maxillofacial surgery

High-level case flow
• Expose anterior ramus.
• Make superior/medial cut.
• Separate posterior aspect.
• Reposition and secure bone.

Tips used
• Knife
• Serrated knife
• Serrated aggressive knife

Alternative
• Reciprocating saw

Advantages
• Safer cut than reciprocating saw
• Protection of nerves in the mandible
• Sparing of soft palate
• Less chance of shattering bone or unanticipated fractures when making vertical cut
• Less risk of injury to the internal maxillary artery and its branches

Endoscopic orbital decompression

Summary
Orbital decompression is the partial or complete removal of one or more of the four walls of the eye socket. This procedure is primarily performed for Graves’ disease. Graves’ disease frequently includes some combination of thyroid disease, bulging of the eyes (exophthalmos), lid lag, retraction of the eye lids and double vision (diplopia).

Surgical specialty
• Otolaryngology
• Ophthalmology
• Ophthalmic plastic and reconstructive surgery (www.asoprs.org/custom/directory/membership.cfm)

High-level case flow
• Expose the orbit.
• Resect the bone around the eye to allow the eye to fall back.

Tips used
• Spetzler Claw
• Spetzler Micro Claw Long
• Spetzler Open Angle Micro Claw
• Payner 360

Alternative
• Drill bur/shaver
• Manual instrumentation

Advantages
• Deeper access
• Protection of optic nerve and other critical structures
• Speed—eliminates need to continually clean bur/instrument
• Less bleeding

http://services.medicine.uab.edu/publicdocuments/surgery/neuro/nerve_decompression.pdf