**Orthognathic Surgery**

Orthognathic Surgery is used to correct conditions of the jaw and face related to structure, growth, sleep apnea, TMJ disorders, malocclusion problems owing to skeletal disharmonies, or other orthodontic problems that cannot be easily treated with braces. It is also used in treatment of congenital conditions like cleft palate. [1] Bones can be cut and re-aligned, then held in place with either screws or plates. Orthognathic is also referred to as corrective jaw surgery. [2]

FCI provides input from a multidisciplinary team. Radiographs and photographs are taken to help in the treatment planning, and specialized software helps predict the shape of the patient’s face after surgery. [3,4] This is especially helpful for the patient, the patient’s family and the referring oral practitioner to insure the structural and cosmetic goals are achieved.

The surgery might involve one jaw or both jaws during the same procedure. The modification is done by making cuts in the bones of the mandible and/or maxilla and repositioning the cut pieces in the desired alignment. Usually surgery is performed under general anesthetic and using nasal tube for intubation rather than the more commonly used oral tube; this is to allow wiring the teeth together during surgery. The surgery often does not involve cutting the skin, and instead, a surgeon may be able to go through the inside of mouth.

The main goals of orthognathic surgery are to achieve a correct bite, an aesthetic face, and an enlarged airway. While correcting the bite is important, if the face is not considered the resulting bone changes might lead to an unaesthetic result. [6] Orthognathic surgery is also available as a very successful treatment (90-100%) for obstructive sleep apnea. [7] Great care needs to be taken during the planning phase to maximize airway patency, which Florida Craniofacial Institute provides.

Throughout the process, Dr. Ricalde will see the patient for check-ups, to monitor healing, check for infection, and to make sure nothing has moved. The frequency of visits will decrease over time. If the Dr. Ricalde is unsatisfied with the way the bone is mending, she may recommend additional surgery to rectify whatever may have shifted. It is very important to avoid any chewing until the healing process is complete.

*Please call our office for references featured in this article.*
Patient History

Patient was a healthy, teenage female. She was referred from her orthodontist, who had helped manage her malocclusion. She complained of difficulty chewing, speaking, and facial muscle pain and fatigue.

She underwent a comprehensive workup, which included facial and occlusal analysis, TMJ exam, clinical and radiographic measurements, and dental models. During her work up it was revealed that she had a large cystic mass in her mandible. Coordination with her orthodontist was accomplished and a treatment plan was established. The insurance authorization process began, taking 6 weeks to complete.

Treatment

The cystic lesion was removed first, followed by her facial reconstruction. She underwent LeFort Maxillary osteotomy, septreroplasty, reduction of inferior turbinates, bilateral sagittal split osteotomies of the mandible; and genioplasty. She stayed in the hospital for two nights, was on a liquid diet for one week and resumed normal activities after five weeks.

Outcome

Two years after surgery, she says, “I’m so glad I did it. It was worth it.”