

## 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.*

## Pat Ricalde, MD, DDS, FACS



Dr. Pat Ricalde is from Ann Arbor, Michigan. She completed her undergraduate training at Eastern Michigan University, then attended both dental and medical schools at the University of Maryland in Baltimore. She graduated magna cum laude and received numerous

performance awards including: the Academy of Dentistry for Persons with Disabilities Award, the American Association of Oral and Maxillofacial Surgeons Award, Nathan David Gold Memorial Award, and the Neighbors Helping Neighbors Award. She was also inducted into the Gorgas Odontological Honor Society as well as the OKU Honorary Dental Society.

She continued her education in Oral and Maxillofacial Surgery at the University of Maryland and did her pediatric craniofacial fellowship at Georgetown. She then completed a fellowship with Dr. Jeffrey C. Posnick, who is internationally renowned for the treatment of patients with craniofacial anomalies. **In addition to Board Certification, she is the only Fellowship Certified Craniofacial Surgeon in the entire Tampa Bay area.**

Dr. Ricalde is the author of numerous publications and lectures both nationally and internationally on the subject of pediatric craniofacial surgery. She is a lead investigator in research projects to improve surgical care for patients, and maintains academic affiliations with the Universities of South Florida and Maryland to educate future physicians and surgeons.

Dr. Ricalde uses her surgical expertise to volunteer with various international non-profit organizations that provide assistance to patients with cranio-maxillofacial anomalies. She is also the Founder and Director of the Cleft and Craniofacial Team at St. Joseph's Children's Hospital.

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## Facial Asymmetry and Pain

Pat Ricalde, MD, DDS, FACS

### 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 radio graphic 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, septoplasty, 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."



*Facial views before orthognathic surgery*



*Facial views after orthognathic surgery*