No matter the need, CHOC Children's has the pediatric expertise for every step along the way in a baby's care and development. CHOC's comprehensive team is dedicated to supporting families through the distraction process, all working together to achieve the best results for patients and families.

Parents and families are vital members of the team, as well as partners in every stage of their child's care. CHOC has the pediatric expertise to care for this unique patient population. The NICU and PICU work closely with the CHOC Feeding Program and the CHOC Sleep Center to further evaluate and treat a patient whose condition affects their ability to eat and sleep safely after the surgical distraction procedure.

OUR COMPREHENSIVE TEAM INCLUDES:

- Mandibular Distraction Osteogenesis key physicians: Dr. Raj Vyas *(Plastic/Craniofacial Surgeon)*, Dr. Irfan Ahmad *(Neonatologist)*, Dr. Touran Zadeh *(Geneticist)*, Dr. Jason Knight *(Pediatric Intensivist)*, Dr. Neal Nakra *(Pulmonologist)*
- Plastic/Craniofacial Surgeons
- Neonatologists/Critical Care Physicians
- Anesthesiologists
- Geneticists
- Gastroenterologists
- Pulmonologists/Sleep Specialists
- Otolaryngologists
- Clinical Nurse Specialists
- Occupational and Speech Therapists
- Dietitians
- Neonatal/Pediatric ICU Nurses
- Music Therapists
- Pain Management Specialists

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CHOC CRANIOFACIAL PROGRAM

1201 W. La Veta Ave.
Orange, CA 92868
714.509.8378

CHOC Children's is exclusively committed to improving the health and well-being of children through clinical expertise, advocacy, outreach, education and research. Our growing health care community includes two state-of-the-art pediatric hospitals in Orange and Mission Viejo, many primary and specialty care clinics, a mental health inpatient center, and four clinical centers of excellence — the CHOC Children's Heart, Neuroscience, Orthopaedic and Hyundai Cancer Institutes.

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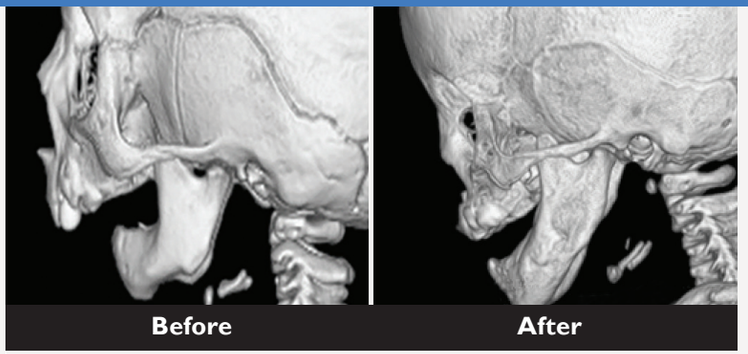
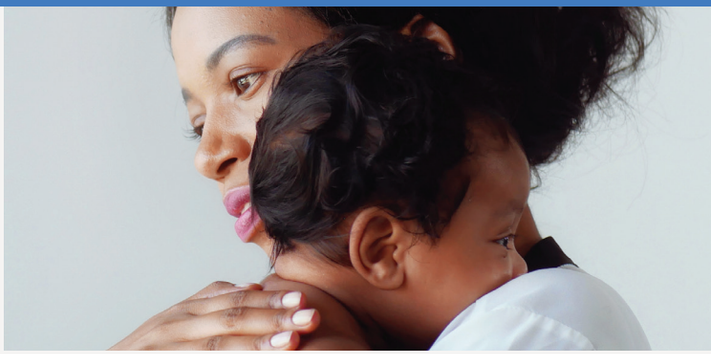
MANDIBULAR DISTRACTION OSTEOGENESIS

MANDIBULAR DISTRACTION

Before After



Before After



ABOUT MANDIBULAR DISTRACTION

Some babies are born with an undersized or recessed lower jaw (micrognathia), which can be caused by a condition called Pierre Robin Sequence. This can result in a baby having difficulty breathing, eating, and sleeping. Mandibular distraction osteogenesis (MDO) is a surgical procedure that lengthens the lower jaw and pulls the tongue forward to open the airway and correct these issues.

Traditionally, babies with this condition have been treated by placing a tracheostomy that remains for several years until the child outgrows the condition. Mandibular distraction is a more permanent solution that takes a few months to complete, improving a baby's chances for healthy development.

At CHOC Children's Level 4 Neonatal Intensive Care Unit, we specialize in performing mandibular distraction of the facial skeleton, including the neonatal mandible. We are one of a small number of hospitals to offer this unique procedure, with the goal of correcting the problem early in a baby's life and avoiding more complex treatments and complications.

HOW IT WORKS

Mandibular distraction is usually performed in the first several weeks of life. An incision is made in the neck and the jaw bone is carefully separated to allow a distraction device to be attached to the bone, on both sides of the jaw separation. The device has two pins that are turned gradually to further separate the bone after surgery. These pins are turned approximately every 8-12 hours for 3-4 weeks. Stretching the bone gradually, new bone forms to fill the gap. This brings the lower jaw forward and provides more space for the tongue so that it no longer blocks the airway. The device remains in place for 12 weeks to allow new bone to form. The device is surgically removed at the end of treatment.

Most babies stay in the NICU during the entire distraction process. In some cases, and with special education from our team, parents will complete the distraction process at home after learning how to turn and care for the screws.

The goal of mandibular distraction is to provide the baby a normal-sized jaw that allows him or her to breathe and sleep normally. This is objectively measured by a follow-up sleep study. Most babies go on to have normal jaw growth and meet their speech and developmental milestones. Some babies may have improvement in oral feeding skills.

THE REGION'S ONLY SURGICAL NICU

CHOC Children's is one of only a handful of hospitals in the country to offer a neonatal surgical unit, providing highly specialized care for babies who need surgery. The Surgical NICU provides pre- and postoperative care, with bedside nurses who are educated in the best practices for neonatal surgery, including pain management. A baby undergoing mandibular distraction will stay in the Surgical NICU for as long as needed. We make every effort to create a comfortable space that promotes healing and growth. As a baby heals and becomes stabilized, we encourage parents and families to hold, feed, and care for them just as they would at home.

Older children also benefit from mandibular distraction. This is true of children with craniofacial syndromes whose anatomy does not allow for distraction in the neonatal period and those who had a tracheostomy at birth and now seek removal. Our PICU physicians and nurses specialize in the care of these children and work with families to ensure they are comfortable and safe during their recovery.

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