



American Association of Oral and Maxillofacial Surgeons

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AAOMS study: Physiotherapy critical to children's recovery from maxillofacial trauma

December 19, 2016, Rosemont, Ill. – Intense and regular physiotherapy – including exercises and special equipment to temporarily keep the jaw open – is critical to the recovery of pediatric patients who suffer complications from maxillofacial trauma, according to a new scientific study.

The study's recommended treatment plan can help young patients who suffer from post-traumatic restricted mouth openings prevent permanent disabilities, including future TMJ-related disorders, jaw growth problems, functional issues, and the development of chronic pain and joint stiffness. The study was published in the December issue of the *Journal of Oral and Maxillofacial Surgery* – the official journal of the American Association of Oral and Maxillofacial Surgeons (AAOMS).

Working with 86 patients ages 3 to 17 who had suffered mandibular (jawbone) or midface fractures or trauma, the researchers found those who followed a regular program of exercises and used mouth props to keep their jaw open for an hour several times a day recovered more quickly and completely than those who were not provided such treatment.

To ensure patient cooperation, especially for children younger than 12, researchers stressed that treatments be performed under the close supervision of their surgeons. In addition, parents were motivated to ensure compliance after being informed of the permanent disabilities the treatment could prevent by maintaining muscle function while preventing adhesion (internal scar tissue) formation and contraction of soft tissues.

In addition to difficulties with patient cooperation, researchers said children create special challenges for maxillofacial surgeons because their facial skeletons differ significantly from those of adults. These differences include the small bone and sinus size, growth potential, a quicker healing process and a high incidence of temporomandibular joint (TMJ) issues.

Patients who followed the study's recommended treatment plan returned to their preoperative mouth opening size at the fourth month, with fixed normal measurements at the sixth month.

The study results led researchers to conclude that a vigorous physiotherapy treatment plan is critical in the recovery of restricted mouth openings and prevention of bone stiffness for pediatric trauma patients.

“Physiotherapy Maneuver Is Critical to Recover Mouth Opening After Pediatric Trauma” is authored by Ghada Amin Khalifa, M.D., Naglaa Shawki El-Kilani, M.D., and Hanan Mohamed Shokier, M.D.

The full article can be accessed at [http://www.joms.org/article/S0278-2391\(16\)30649-8/fulltext](http://www.joms.org/article/S0278-2391(16)30649-8/fulltext).

The Journal of Oral and Maxillofacial Surgery is published by the American Association of Oral and Maxillofacial Surgeons to present to the dental and medical communities comprehensive

coverage of new techniques, important developments and innovative ideas in oral and maxillofacial surgery. Practice-applicable articles help develop the methods used to handle dentoalveolar surgery, facial injuries and deformities, TMJ disorders, oral and head and neck cancer, jaw reconstruction, anesthesia and analgesia. The journal also includes specifics on new instruments and diagnostic equipment, and modern therapeutic drugs and devices.

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