

S.A.R.P.E. SURGERY

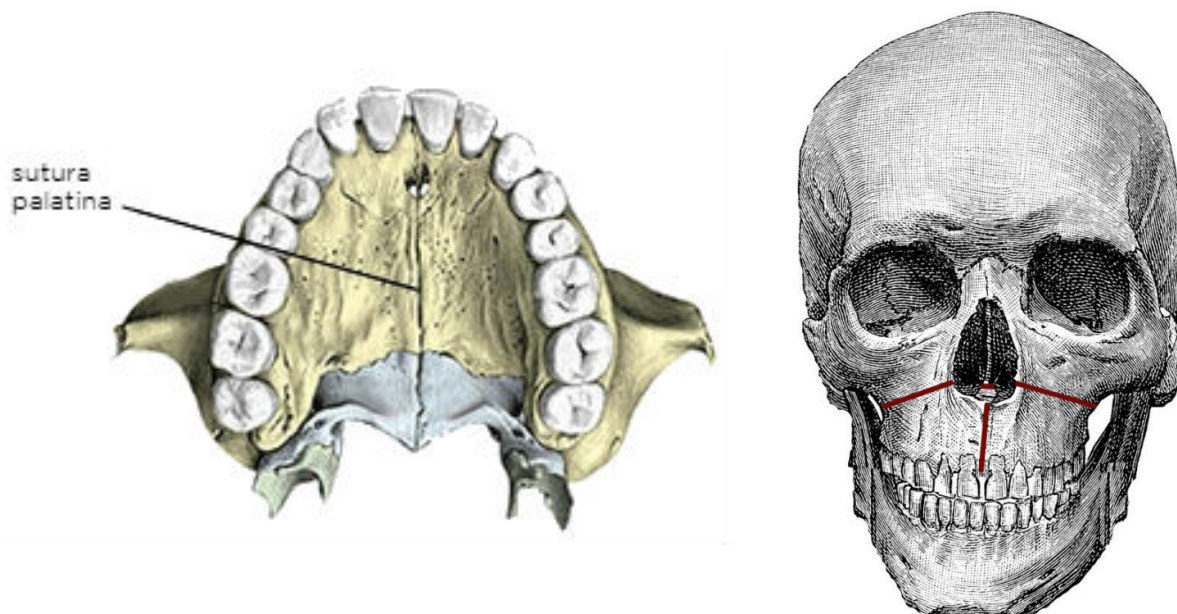
What is SARPE?

S.A.R.P.E is an acronym for Surgically Assisted Rapid Palatal Expansion. It is a technique that combines surgery with orthodontic treatment to achieve a widening of small palates, correcting problems such as lateral crossbite and dental crowding of the upper arch.



For whom is SARPE indicated?

The palate is formed by two bones that join in the dome of the maxilla. The union between these two bones is called palatine suture or maxillary suture. Ideally, the palate expansion should be carried out at an early age, before the palatine suture has completely fused, a process that is completed during puberty. In these cases a surgical intervention is not necessary, but only an orthodontic treatment called RPE (Rapid Palatal Expansion). For patients whose palatal suture has already fused, the SARPE procedure (the palatal expansion by surgical route) is an option to expand the upper jaw. A SARPE procedure helps to create facial harmony and balance between the upper and lower jaws.



How is a SARPE done?

A SARPE is usually carried out under local anesthesia and sedation. The first steps are completed by the orthodontist, who will place a rapid expansion device (RPE). During surgery, the maxillofacial surgeon performs a vertical osteotomy (cut in the bone) in the maxillary midline, as well as a Le Fort I osteotomy on either side (red lines in the image above) to facilitate expansion. Five days after surgery, and following the specialist's instructions, the patient will begin to open the expander little by little until reaching the necessary dimension to start the orthodontic treatment. Then, a stabilization period of approximately three months begins. During this period the expansion stops but the expander is kept in place, causing the bones to fuse in their new position. During this process, interdental spaces will be produced between the central incisors. This is completely normal and will be corrected later on with the orthodontic treatment. In some patients, a second orthognathic surgery is necessary to address the vertical and anterior-posterior changes.



BEFORE

Narrow, V shaped upper arch with crowding.



AFTER

Ovoid upper arch, broad smile & alignment.