

## TREATED CASES • SECOND CLASS

R.G. female, 9 years old, presents malocclusion with an upper arch contraction with slight Cross bite on the left and absence of space for the eruption of 12 and 22, mandibular contraction with absence of space for 33-43, dental misalignment, atypical swallowing.



The treatment plan involves the use of an A.M.C.O.P. **S INTEGRAL** elastodontic appliance, which enables the correct development of the jaws, their coordination and correct lingual function. The appliance is worn passively every night and about 1 hour during the day for about 8 months in order to restore a first Class bilateral molar and canine relationship and the correct maxillary and mandibular development with the correction of the posterior Cross Bite and the creation of the correct space for the eruption of 12 and 22.

Once the correction of the molar relationship, the resolution of the Cross Bite and after the eruption of 12 and 22 has been achieved, the appliance will be worn by the patient for about another 8 months in order to continue the lingual reeducation to stabilise the result obtained.



### Results

The results obtained show the great importance of elastodontic therapy in restoring normal occlusion very quickly, given the plasticity of skeletal structures during the growth peak. The A.M.C.O.P. **INTEGRAL** appliance is also used as a neuromuscular re-educator in order to obtain a dental and at the same time muscular result so that the case remains stable over time.

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D.E female, 9,5 years old, presented with skeletal Class II malocclusion, Class II molar and canine right and left, Deep Bite.



Malocclusion is the cause of periodontal problems on 41. Skeletal and dental malocclusion is also associated with postural problems, as can be seen from the radiography, which shows compression of the first cervical vertebrae with an increase in the cervical curve created by posterior sliding of the mandible. The therapy through elastodontic appliances allows the recovery of the vertical dimension and the restoration of the correct arch form; the duration of the therapy is about 18 months with restraint that is always with the same appliance for another 7-8 months. Currently, 10 years after therapy, great occlusal stability is found. The resolution of the skeletal and dental malocclusion is associated with a clear recovery of the posture with consequent improvement of the cervical curve, as it is possible to read in the final radiography. Once the correction of the molar and anterior ratio has been achieved, the appliance will be worn by the patient only during the night to stabilise the result obtained and guide the eruption of the permanent dental elements.

### Results

The results obtained show bilateral Class I molar and canine teeth and excellent intercuspitation, centring of the midline and frenula. Elastodontic Therapy was instrumental in resolving skeletal Class II as well as excess Overbite and Overjet.

The examination of the initial latero-lateral radiography shows the cervical hyperlordosis with hyper extension of the head on the neck, the hyoid bone is positioned down and backwards, note the reduction of the joint spaces C2 C3 C4.

The latero-lateral radiography performed at the end of the treatment shows a normal cervical lordosis and a correct position of the hyoid bone and therefore normalization of the articular spaces between C2 C3 C4. Correct posture was achieved with elastodontic treatment itself.

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P.B. female, 9.5 years old, presented with skeletal Class II malocclusion, Class II molar and canine right and left, midline displaced left, altered inclination of 11 and 21, inferior crowding with lingualisation of 32.



The working mechanism of elastodontic appliances is such that through the more or less high elasticity of the material it is possible to intervene in a three-dimensional way within a reality that is also three-dimensional, such as the oral cavity; unlike the common standard functional appliances able to work two-dimensionally due to an occlusal relationship often altered by the presence of plates or showers that make the therapy less biological by preventing the achievement of intercuspitation during the therapy itself.

### Materials and Methods

Therapy with elastodontic appliances allows the recovery of the vertical dimension and the restoration of the correct arch form; the duration of therapy is about 18 months with restraint using the same appliance for another 7-8 months.

Currently, 9 years after the therapy, great occlusal stability is found. The resolution of skeletal and dental malocclusion is associated with a clear recovery of posture with consequent improvement of the cervical curve. Once the correction of the molar and anterior ratio has been achieved, the appliance will only be worn by the patient at night to stabilise the result obtained and guide the eruption of the permanent teeth.



### Results

The results obtained show bilateral Class I molar and canine and excellent intercuspitation, centring of the midline and frenum, correction of the axes of 11 and 21. Elastodontic therapy was determined to resolve Class II skeletal as well as excess Overbite and Overjet. Correct posture was achieved with elastodontic treatment itself.

### Conclusions

Preventive orthodontics by means of elastodontic appliances therefore represents an important step forward in the field of developmental orthodontics as it is able to solve most orthodontic problems by transforming many of these cases into ideal occlusions from an aesthetic and functional point of view. With elastodontic appliances it is possible to correct malocclusions and at the same time solve the related postural problems.