

DEEP BITE

Deep bite is defined as a condition of excessive overbite, where the vertical measurement between the maxillary and the mandibular incisal margins is excessive when mandible is brought into occlusion. Significant deep bites affect approximately 20% of mixed dentition patients. The problem may result from reduced lower face height, lack of eruption of posterior teeth, or overeruption of the anterior teeth. The possible treatments are quite different.

Types of Deep Bite:

- **Dental Deep Bite**

Dental deep bite is confined to the dentition where there is extrusion of anteriors and intrusion of molars and it is often seen in Angle's class II division 2 malocclusion.

- **Skeletal Deep Bite**

Skeletal deep bites are usually of genetic origin caused by upward and forward rotations of mandible, downward and forward inclination of maxilla or combination of both. The anterior facial height is reduced; especially the lower third of the face, meanwhile the posterior facial height is excessive. When the anterior facial height is lesser than the posterior facial height the maxillary bases converge and the result is a deep bite of skeletal origin.

Clinical Features of Deep Bite:

Extra-oral Features

- Decreased lower facial height.
- Brachicephalic face

Intra-oral Features

- Increased overbite
- Decreased overjet
- Extruded maxillary anteriors.
- Intruded maxillary posterior teeth.
- Gingivitis in lower anterior region.

Some Cephalometric Findings:

- Increased inter-incisal angle (dental deep bite)
- Decreased FMA angle (skeletal deep bite).

Children with vertical deficiency can be identified at an early age. Children exhibit a skeletal vertical deficiency (short face), almost always with an anterior deep bite and some degree of mandibular deficiency and often with a class II division 2 malocclusion. The goal in correcting deep bite is to increase eruption of posterior teeth and influence the mandible to rotate downward without decreasing chin prominence too much.

Removable Orthodontic Appliances to Correct Deep Bite

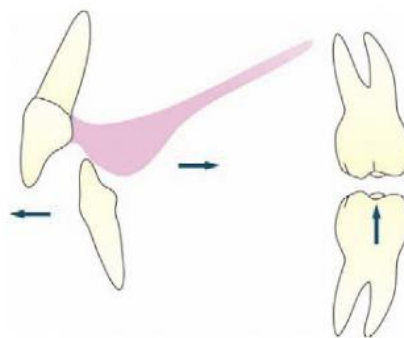
Anterior bite plane can effectively be used to treat deep bite:

Flat Anterior Bite plane

The flat anterior bite plane is used with maxillary removable orthodontic appliance. The main purpose of flat anterior bite plane is to reduce the incisal overbite (deep bite). It is mainly used to reduce incisal overbite in Angle's class II division 2 malocclusion and Angle's class I malocclusion with deep bite. The flat anterior bite plane induces extrusion of upper and lower posteriors thereby it brings about reduction of the incisal overbite (deep bite).

Inclined Anterior Bite Plane

Inclined anterior bite plane on the maxillary removable orthodontic appliance is also used for the correction of deep bite cases. It is mainly used in the correction of deep bite in Angle's class II division I malocclusion. The inclined anterior bite plane induces a forward mandibular posture and reciprocal backward force on the maxillary appliance from the masticatory forces and extrusion of lower posteriors.



Myofunctional Orthodontic Appliance to Correct Deep Bite

Functional appliance can be used to correct deep bite when inter-occlusal acrylic is trimmed to facilitate extrusion of posterior teeth.

Fixed Orthodontic Treatment Appliance to Correct Deep Bite

Fixed orthodontic appliances can be used to treat deep bites. Different types of archwires can be used to correct the deepbite.

Retention After Deep Bite Correction

This is done by using a removable upper retainer with an anterior bite plane that contact the lower incisors, but does not separate the posterior teeth. Because vertical growth continues into late teens, this retainer can be worn continuously for the period of minimum 4-6 months and then only at night for several years after fixed orthodontic appliance treatment is completed.

Stay Patient And Trust Your Journey

GOOD LUCK