

## Herbst Appliance

The doctor has recommended a Herbst Appliance as part of your treatment plan. Here is a review of what that appliance is for and how it is used. Further instruction will be given when the appliance is placed.

A **Herbst Appliance** helps your lower jaw grow forward by moving it forward and keeping it in that position. It attaches to the back molars on both top and bottom jaws.



A **Herbst Appliance** is a functional appliance designed to transmit steady, gentle forces to influence the growth of the lower jaw to correct severe Class 2 malocclusion. Class 2 malocclusion is when a patient has an overbite, the top teeth are in front of the bottom teeth. Traditional braces and elastics can correct mild Class 2 malocclusion. However, the Herbst appliance is used when there is a severe overbite caused by a deficient lower jaw, also known as being "retrognathic". This appliance along with braces contributes to a better bite and facial profile.

The appliance is worn for 12 months in conjunction with braces to help the lower jaw grow forward. After 12 months, the appliance is removed and braces remain for an additional 9-12 months, for total treatment time between 21-24 months. After the initial 12 months, the lower jaw has grown into its new position and the remaining time is used to complete the dental bite correction.

Patients with retrognathia, where the jaws are misaligned with the lower jaw being behind the upper jaw, often have challenges with eating, breathing and sleeping. This condition creates a posterior displacement of the tongue base, which narrows the upper airway. This becomes even more problematic in adults as they gain weight.

The Herbst appliance can only be used during a child's growth spurt, usually associated with Skeletal Maturation Indices = 4, which is when the sesamoid bone develops and the person enters his/her growth spurt. Adults with this condition need a surgical correction when growth is no longer available.

Although there is an adjustment period getting used to talking, chewing and brushing with the Herbst appliance, patients often adjust to the appliance without issue and are pleased with the positive bite and facial improvements.