## **The Pendulum Appliance** for Crowding and Molar Bite Correction

Since the introduction of the Pendulum appliance 20 years ago, it has proven to be an efficient and predictable method of correcting upper anterior crowding and Class II malocclusions. Changes in the Pendulum appliance design has greatly improved patient comfort and ease of appliance placement and activation.

A Pendulum appliance backs up the upper molars without the need for headgear and patient compliance. It is a fixed intraoral appliance that does not require patient cooperation for it to work.

The Pendulum appliance is custom made for the upper posterior teeth. It is used to move the upper molars backwards, similar to the effects of a headgear. It allows the orthodontist to correct the upper molar position and gain space for the upper anterior teeth without extraction of permanent teeth.

The Pendulum appliance is not removable, it is cemented to the upper posterior teeth. It uses the upper bicuspids and the roof of the mouth as anchorage to move the upper molars back. An acrylic pad touches the roof of the mouth and wire springs act to move the molars back.

It typically takes 6 months for the Pendulum appliance to move the upper molars back and gain space for the anterior teeth. After the molars are back, a Nance space maintainer is custom made and cemented to the upper molars to hold the space.

The Nance space maintainer will stay in the mouth for several months while the other upper teeth are moved into their proper positions using full braces. Orthodontic treatment with brackets on all upper and lower teeth usually lasts 18-21 months.

For patients with mild anterior crowding of the upper teeth and a Class II molar relationship, the Pendulum appliance is a great treatment modality for correction of the bite and upper anterior crowding without the extraction of permanent teeth.



Before treatment



6 months with Pendulum appliance



Nance space maintainer



After treatment