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ORTHODONTIC APPARATUS SPECIES

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## ANNOTATION

This is a comprehensive list of functional appliances that are used in the field of orthodontics. The functional appliances can be divided into fixed and removable. The fixed functional appliances have to be bonded to the teeth by an orthodontist. A removable functional appliance does not need to be bonded on the teeth and can be removed by the patient. A removable appliance is usually used by patients who have high degree of compliance with their orthodontic treatment. Fixed appliances are able to produce very accurate movement in the teeth.

Key words: medical science, dentistry, diagnosis, orthodontic treatment INTRODUCTION

Orthodontics is a branch of dentistry that deals with the diagnosis, prevention, and treatment of crooked teeth and jaws, as well as incorrect bite patterns. The goal of orthodontic treatment is to achieve a healthy bite. This consists of straight teeth meeting the opposing teeth in the opposite jaw properly. Biting, chewing, and speaking is thus made easier with a good bite.

Therefore, correction may be necessary if your teeth are protrusive, crowded, spaced much far apart, meet abnormally, or don't meet at all. Orthodontic treatment may be cosmetic, aiming at enhancing the appearance of a person. It can also help improve general oral function.

Benefits of Orthodontic Treatment

An orthodontist can perform the orthodontic treatment to accomplish the following goals:

- Bridging large gaps between teeth
- Alignment of the teeth's tips
- Crooked teeth straightening
- Enhancing one's capacity to speak or chew



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- · Improving the gums' and teeth's long-term health
- Preventing long-term severe tooth wear or trauma
- Repairing a faulty bite

Treatment not only improves the teeth' appearance but can also improve chewing and speech capacity. In other cases, it helps preserve teeth from injury, damage, or decay. The orthodontist usually uses a variety of medical dental equipment, like headgear, braces, and plates, to achieve these objectives.

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Types of Orthodontics Devices

Orthodontics devices can include:

Fixed devices:

Fixed devices are typically the most prevalent orthodontic appliances. Dentists often recommend them when accuracy is crucial. With fixed appliances, one can feed normally. However, certain foods and drinks must be avoided, including carbonated beverages, gum, hard candy, and particular sticky foodstuffs.

If you take part in contact sports, you should inform your orthodontist since you may require special gum shields.

The following are some examples of fixed orthodontic devices;

Brackets, bands, and wires are examples of braces. Orthodontics brackets are normally attached to the front of the teeth. On the other hand, bands are secured firmly around the teeth, functioning as anchors for the device.

Arch-shaped wires go through the brackets and are secured to the bands. Tension is imparted to the teeth since the arch wire is tightened. This gradually shifts them into the appropriate position.

Monthly follow-up visits are necessary to adjust and tighten the braces. This treatment can generally last anything from a few months to several years. Luckily, there are clear and colored orthodontics braces to choose from.

• Fixed-space maintainers

When a child lost one of the baby's teeth, the dentist can use a space maintainer to prevent the teeth on both sides of the gap from sliding into the space till the adult



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tooth emerges. A band is attached to one of the teeth adjacent to the gap, while a wire connects it to the other tooth.

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• Specialized fixed appliances

These can aid in the management of tongue thrusting and thumb sucking. Because they can be uncomfortable, particularly when feeding, they are used when necessary.

• Removable space maintainers

A removable space maintainer can be used instead of fixed-space maintainers. Removable orthodontics devices:

These can be used in addressing small issues like thumb sucking prevention or slightly crooked teeth correction. When cleaning, eating, or flossing, the appliance should be removed. During some activities, like cycling, the orthodontist may ask the patient to take them out.

The following are some examples of removable orthodontic devices:

• Aligners: Adults may benefit from aligners as an alternative to braces. They are practically undetectable to others, and are easily removable when brushing, flossing, or eating. Usually, the aligner is worn for two to three weeks before being replaced with a tighter one.

• The palatal expander: This is a device that is used to widen the upper jaw arch. It is made up of a screwed-on plastic plate that is put on the palate (mouth's roof). The screws apply pressure to the bones' joints, pushing them outward. The region in the mouth roof expands as a result of this.

• Headgear: This consists of a strap on the back of the head that is connected to a metal wire at the front part (a face bow). The goal is to hold the back teeth in place as the front teeth pull back, slowing down upper jaw growth.

• Lip and cheek bumpers: They are specially designed to ease pressure from the cheeks or lips on the teeth.

• Retainers: After treatment, retainers are worn to keep the teeth from reverting to their previous positions. They can also be used to prevent the child from sucking the thumbs if they are changed.



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