

## Functional Orthodontic Appliances Information for patients

*This information about functional orthodontic appliances is a simple overview and if you have any questions or concerns we shall be pleased to discuss them with you.*

Functional appliances are removable appliances which aim to alter jaw growth. They are generally best used in patients who have prominent upper teeth or a small lower jaw. When inserted, they reposition the lower jaw and rely on forces from muscle function (hence their name) to correct the positions of the teeth and jaws.

Such appliances can significantly improve jaw relationship and facial aesthetics and a functional appliance may be all that is required. In other cases, fixed appliances are needed to complete treatment. Functional appliance treatment frequently produces significant changes within six to nine months but sometimes they are worn for longer.

There are different designs of functional appliance. Some are made in one piece, whilst others consist of two separate braces (twin block appliances) which fit upper and lower jaws independently. They act by guiding the lower jaw into a new forward position when they are brought together. This appears to be a result of a change in postural habits plus a change in muscle activity plus stimulation of favourable growth changes through the changed muscle behaviour.

The more that the appliances are worn, the more effective they will be. Functional appliances should be worn nearly all the time (day and night). Generally, they are not worn during eating, have to be removed for cleaning, and may need to be removed for some sporting activities.

Becoming accustomed to wearing the appliances can be difficult at first and requires strong motivation and persistence. As the malocclusion improves, this type of appliance becomes easier and easier to wear.

The appliances need regular cleaning and the recommended regime which must be followed is to brush the brace four times a day, morning, middle of the day before lessons start again, after school at tea time and before going to bed. The teeth and gums must also be brushed of course and brushing is best done after meals.

The appliances should be removed and put somewhere safe (a rigid brace box is best) before undertaking sports or P.E. (including swimming) where they may become accidentally displaced.

At first, the appliances will make it difficult to speak clearly but this rapidly improves with practice.

Sometimes areas of soreness can develop after the appliance has been worn for a while. Telephone us during normal working hours for advice or so that arrangements can be made to see you and adjust the appliances before your next scheduled appointment. This avoids interrupting the progress of treatment. Any other problems, such as accidental breakages, should also be notified as soon as possible (during normal working hours). Repairs normally require the taking of another impression and work by a laboratory technician before refitting, which means that accidental damage can significantly interfere with progress of treatment. Therefore, every care must be taken of the appliances.