



## Dental Procedure Information

### Orthodontic Treatment

#### Introduction

Orthodontic treatment uses appliances to correct the position of the teeth.

#### Outcomes

The treatment is able to correct the dental crowding and your bite. Also, it can reduce the chance of damage to prominent teeth and improve your appearance.

The results are limited by various biological parameters often beyond the control of the orthodontist, such as the sizes and shapes of teeth; the pattern of growth of the facial and jaw bones; the level of growth discrepancy between the upper and lower jaws; the amount of correction required; the amount of space made available, etc. Treatment within these parameters is individualized and may not be treated to one's wish. As such, the results are not comparable between patients.

#### Important Notes during Treatment

1. Patient co-operation is necessary throughout the course of treatment. Any insufficient wearing of elastics, removable appliances, headgear or neck-strap; broken appliances or missed appointments will lengthen the treatment time and adversely affect the outcome of treatment.
2. Orthodontic treatment requires regular routine check-ups every 4 – 6 weeks. As such, you should be well prepared before accepting the treatment.
3. All necessary dentistry (e.g. scaling and filling) should be completed prior to the orthodontic treatment. It is also essential to maintain regular dental check-ups (every 3 – 6 months) and scaling during the treatment.
4. Avoid collision during sports, wear a mouthguard if necessary.
5. The treatment can be affected by your physical conditions, physical changes or some medications. Please keep your orthodontist informed of any changes.
6. Swallowing or aspirating parts of an appliance; dislodging a restoration; chipping of teeth may rarely occur, please inform your orthodontist promptly should this happen.
7. Entire course of treatment is around 2 – 3 years; the actual duration may vary depending on the individual's circumstances.

#### Possible Issues Throughout Treatment

##### 1. Extraction

It is often necessary to have certain teeth extracted as part of the treatment. This is usually because the jaw is not large enough to hold all the teeth. After the extraction, the remaining teeth will have sufficient space to be straightened. The extraction is normally carried out by the dental surgeon but in certain cases you may need to be referred to other specialists.

##### 2. Impacted Teeth - Teeth Unable to Erupt Normally

In attempting to move impacted teeth, especially canines, various problems may be encountered which may lead to loss of tooth or periodontal (gum) problems. The length of time required to move such a tooth can vary considerably. Occasionally second molars may be trapped under the crowns of the first molars; consequently the removal of third molars (wisdom teeth) may prove necessary. Not all impacted teeth can be treated successfully.

3. Decalcification / Dental Decay

Decalcification is unsightly white spots developing on the teeth around the appliances, often a result of inadequate oral hygiene, breakage or loosening of the appliance for a period of time. The decalcified areas are weakened enamel that can become decay. In order to minimize the chance of decalcification or decay, it is important to reduce sugar intake and to brush your teeth and gum immediately after eating. The avoidance of hard and sticky foods will keep bands and brackets from loosening. Report any loose bands as soon as they are noticed. Should oral hygiene become a problem, treatment may need to be terminated before completion.

4. Periodontal (Gum) Problems

Periodontal disease can be caused by accumulation of plaque (bacterial deposit) around the teeth and gum, but there are other causes that can lead to progressive loss of the supporting bone. Swollen and bleeding gum can usually be prevented by proper and regular flossing and brushing. Prolonged treatment with poor oral hygiene will result in worsening of the periodontal condition of the teeth. Should the condition become uncontrollable, orthodontic treatment may have to be discontinued before it is completed. In the case of crowded teeth with pre-existing periodontal disease, bone loss will manifest as triangular spaces between the teeth after alignment.

5. Discomfort

Different types of orthodontic appliances can cause transient discomfort in the oral cavity such as mild dental pain or mucosal ulcers.

6. Non-vital Tooth

A tooth can become non-vital due to injury or caries. An injured tooth can lose its vitality over a period of time with or without orthodontic treatment and the tooth may look darker. An undetected non-vital tooth may flare-up during orthodontic treatment and will require root canal treatment. Such discoloration may also be noticed after treatment has started or following the removal of the appliance. Loss of tooth vitality due to orthodontic treatment is rare.

7. Root Resorption/ Shortening of Root Ends

This can occur with or without orthodontic treatment. Tooth injury or impaction, endocrine or idiopathic disorders or other unknown factors, can also be responsible for root shortening. Under healthy conditions the shortened roots are usually of no consequence. On rare occasions, root resorption may threaten the longevity, stability, and/ or mobility of the affected teeth.

8. Temporomandibular Joints (TMJ)

The sliding hinge connecting the upper and lower jaws is called TMJ. Possible problems may pre-exist or occur during or following orthodontic treatment. TMJ problems are not all bite related. Its occurrence during treatment is usually coincidental. Joint problems occurring during treatment should be reported promptly to your orthodontist.

9. Unfavorable Growth

The growth of the jaws may occasionally become disproportionate during or after treatment. This will limit the ability to achieve the desired result and cause shifting of teeth during or following treatment. Jaw growth is a biological process beyond the orthodontist's control. On some occasions it may be necessary to recommend a change in the original treatment plan. Surgical procedures (mostly by Oral & Maxillofacial Surgery Specialist) may be needed to correct these problems. Uncorrected habits can influence growth and treatment results.

## **Post Treatment Notes**

1. Tooth position is constantly changing throughout life, regardless of whether or not they have had orthodontic treatment. Therefore, it is vital to hold the fixed teeth in place after orthodontic treatment.
2. Orthodontist will recommend patient to wear a suitable retaining appliance (removable or fixed retainer) depending on their needs. In general, patient should wear the retaining appliance 24 hours every day during the first year of retention and switch to 8 – 10 hours during bed time in the second year.
3. If the retainer is not worn correctly or the retention period is insufficient, teeth are likely to shift in varying degrees. This will lead to, for example, rotations and crowding of lower anterior teeth, slight spaces in the extraction sites or between some upper anterior teeth. Faithful wearing of retainers should reduce this tendency.

Should there be any enquiries or concerns, please consult the dentist.

Under the professional care of the dentist, you will gradually recover. We wish you all the best during your treatment and recovery.

If you have any questions after reading the entire leaflet, please write them down in the spaces provided in order for the dentist to further follow-up.

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