## **Opening spaces for implants**

Dental implants (screw-in false teeth) can provide a very good replacement for missing lateral incisors. However they cannot be placed in growing individuals, so placement often has to be delayed until patients are in their early to mid-twenties.

Before implants can be placed most individuals first require orthodontic treatment to open spaces for the implants and to properly position the adjacent teeth. This typically occurs in their mid teens. These spaces then need to be kept open until the patient has reached the maturity that allows the placement of implants. Wearing a partial denture or temporary resin bonded bridge for five to ten years often becomes necessary. This can be difficult and demands exceptional patient cooperation. Even then, the spaces can still close, with the risk of the adjacent teeth tipping, making orthodontic retreatment necessary just prior to implant placement.

#### **Long term considerations**

With ageing, adult faces usually grow vertically and the incisors continue to erupt, thus "lengthening" the face. This eruption can be minimal for some patients and significant for others. Unlike the incisors, implants do not move vertically and can be left behind. Consequently, even if implant placement is delayed until the midtwenties when the vertical growth of the face has slowed, continued adult vertical growth can make the implants less aesthetic.

#### **Treatment selection**

Treatment with implants therefore tends to be confined to:

- Patients who require little or no orthodontic treatment to position their teeth for implants, or
- Patients who, due to other factors, would obtain better functional and aesthetic results from implant treatment than could be achieved by closing the spaces.

## **Cost considerations**

#### **Initial cost**

The cost of orthodontic treatment to close the spaces is the same as the cost of opening the spaces for implants.

The cost of cosmetic dental treatment required after closing the spaces is small compared to the combined cost of temporary bridges or partial dentures and then dental implants after the spaces have been opened.

#### **Ongoing cost**

Once the spaces have been closed, patients usually require no further treatment. Only if composite adhesives have been used to reshape the canines and/or first premolars may there need to be further expense, with the resin being replaced every ten years or so. These are relatively inexpensive.

While implants might last a lifetime (and we don't know yet), their crowns will not. Their replacement will present additional and significant costs every fifteen years or so.

#### Patients' and their parents' choice

Up to 95% of parents and the patients who require orthodontic treatment and have missing upper lateral incisors choose the to close the spaces.



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**Orthodontic considerations** 



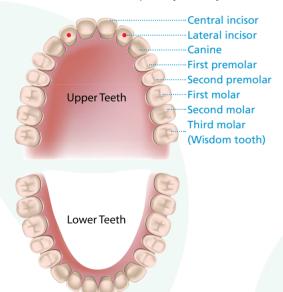
## Congenitally missing teeth

Sometimes not all of a patient's permanent teeth develop. As this often occurs within families, it is generally thought to have genetic causes.

The most commonly missing teeth are third molars (wisdom teeth). This does not always become apparent until the late teens or early twenties and is rarely a cause for concern.

The other permanent teeth most often missing are lower second premolars and upper lateral incisors. The upper lateral incisors are the smaller incisors next to the two upper front teeth. Having missing upper lateral incisors can seriously affect appearance.

Any abnormal dental development, such as the absence of permanent teeth, can usually be confirmed with an x-ray taken around the age of ten. Parents who are concerned about a child's abnormal dental development, or who have one or more family members with missing or underdeveloped teeth, should consider having an orthodontic assessment and possibly an x-ray examination.



# Treatment options for missing upper lateral incisors

Determining the best treatment firstly requires a thorough evaluation of the patient's face, jaws and teeth. Depending on the outcome of this evaluation, one or two treatment options may be available:

- Close the spaces, thus substituting the canines for the missing lateral incisor(s).
- Open spaces for eventual implant replacement of the missing lateral incisor(s).

Both require close cooperation between the patient's dentist and orthodontist to create the best possible result for the patient.

# **Closing the spaces**

Orthodontic treatment with braces can close the spaces between the incisors and the canines, thus putting the upper canines in the places of the missing lateral incisors. At the same time, it puts the upper first premolars in the usual places of the canines.

For a nice smile line, the orthodontist positions the six front teeth to best maintain normal tooth and gingival height (gum line).

After orthodontic treatment, most patients will require some cosmetic reshaping of the canines to obtain a better aesthetic result. The canines may also be bleached if they are noticeably yellower than the adjacent incisors.

While in most cases the first premolars look acceptable and function well as canines, some patients will require some lengthening and reshaping of the first premolar crowns.

The end result of this multi-disciplinary treatment is stable, requires little long term maintenance and no false teeth.

The patients and their parents are invariably happy with the outcome. One such result is illustrated by the case opposite.

## Before treatment to close the spaces

The upper right baby lateral incisor is still present









### After treatment to close the spaces

The dentist has reshaped the upper canines and first premolars







