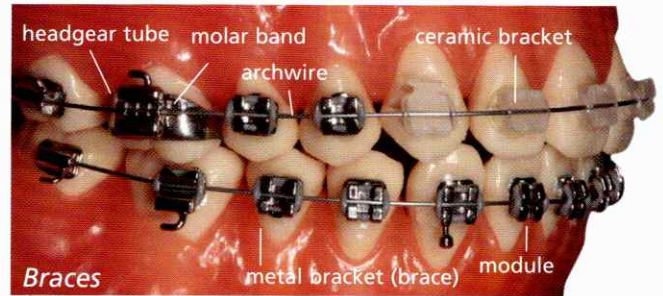


Orthodontics

An introduction to the straightening of teeth

O rthodontic treatment can improve the appearance, health and function of the teeth and jaws. Orthodontics means “straight teeth”. It is the branch of dentistry that deals with the diagnosis, prevention and treatment of problems in the alignment of teeth and jaws.

Crooked teeth are a common dental problem. Some experts have estimated that up to seven people out of 10 would benefit from orthodontic treatment at some point in their lives.



Benefits of orthodontic treatment

Appearance: People are very aware of how their teeth look to others. An attractive smile can play an important role in enhancing self-confidence.

Cleaning of teeth: Teeth that are crowded and overlapping can be difficult to clean. Inadequate cleaning is a major factor in tooth decay and gum disease, which can cause tooth loss. Teeth with good alignment are much easier to floss and brush.

Chewing: Your ability to chew food is best when your occlusion (“bite”) is correct. Proper and thorough chewing of food aids digestion.

Speech problems: Some people have difficulty speaking properly because of alignment problems with their teeth and jaws.

Gum damage: In cases of incorrect bite (malocclusion), teeth may damage gum tissue. For example, in cases of deep bite, the lower front teeth can injure the gum behind the upper front teeth.

Tooth wear: Crooked teeth often show abnormal, and sometimes damaging, patterns of wear.

Occlusion: Occlusion describes how the

upper and lower teeth meet during chewing or when the jaws are closed. This is commonly called the “bite”. Proper occlusion is important for good oral health and for an attractive appearance of the mouth and teeth. A person who has an alignment problem with their teeth or jaws has a “malocclusion”, which literally means “bad bite”. The aim of orthodontic treatment is to correct the malocclusion.

Appliances

Orthodontic treatment involves the design and use of corrective appliances including braces, plates and headgear. These appliances move teeth by exerting gentle forces on them. When the appliances are adjusted, the teeth receive a little pressure. In response to this pressure, a tooth will move gradually through the bone.

This process may cause some minor discomfort (and sometimes pain). Due to advances in technology, the appliances used today are more comfortable and effective than ever before, and not as visible.

Your dentist or orthodontist will

help you choose the appliance that best suits your particular needs. Every dentist is legally qualified to provide orthodontic treatment. An orthodontist is a dentist who is a specialist in the field of orthodontic treatment.

TALK TO YOUR DENTIST OR ORTHODONTIST

This pamphlet is intended to provide general information. It does not contain comprehensive treatment information and details about possible complications of other dental or surgical treatments that may be necessary during orthodontic treatment.

This pamphlet does not replace advice from your dentist or orthodontist, and does not contain all known facts about this topic.

Your dentist or orthodontist will be able to answer any questions or concerns you may have about the benefits, risks and limitations of orthodontic treatment.

The proposed treatment options should be discussed with your dentist or orthodontist before treatment begins.

Your dentist or orthodontist cannot guarantee that orthodontic treatment will meet all your expectations or that treatment has no risks. See page four for possible complications.

If you are uncertain about the advice you have been given, you are encouraged to seek the opinion of another dentist who practises in orthodontics or an orthodontist.

Depending on the case, a range of treatment options may be available.

This pamphlet should be used only in consultation with your dentist or orthodontist.

IMPORTANT: Fill in all details on the sticker below.

Dear Dentist or Orthodontist: When you discuss this pamphlet with your patient, remove this sticker and put it on the patient’s medical history or card. This will remind you and the patient (or the parents) that this pamphlet has been provided. Some dentists and orthodontists ask their patients (or the parents) to sign the sticker to confirm receipt of the pamphlet.

TREATMENT INFORMATION PAMPHLET

PROCEDURE:.....

PATIENT'S NAME:.....

DOCTOR'S NAME:.....

EDITION NUMBER:..... **DATE:** (day).....(month).....(year).....

When to have an orthodontic assessment

Many orthodontic problems are apparent by seven to nine years of age when the six-year molars and most of the adult front teeth have come through. The best age for a child to have an orthodontic assessment is usually around seven to eight years of age.

Early treatment

Early examination of the teeth and jaws allows the dentist or orthodontist to detect and evaluate problems, and plan the best treatment.

In some cases, early treatment may prevent orthodontic problems from getting worse or may prevent damage to teeth and gums. It may also result in

shorter and less complicated treatment at a later age.

Early treatment is usually relatively simple, involving a minimum of appliances. It is often done while many baby teeth are present.

Full treatment

Full treatment usually involves fixed appliances (braces) for about two years. In many patients, the best time to start full orthodontic treatment is around the time the last baby tooth is shed. This is usually about 12 years of age.

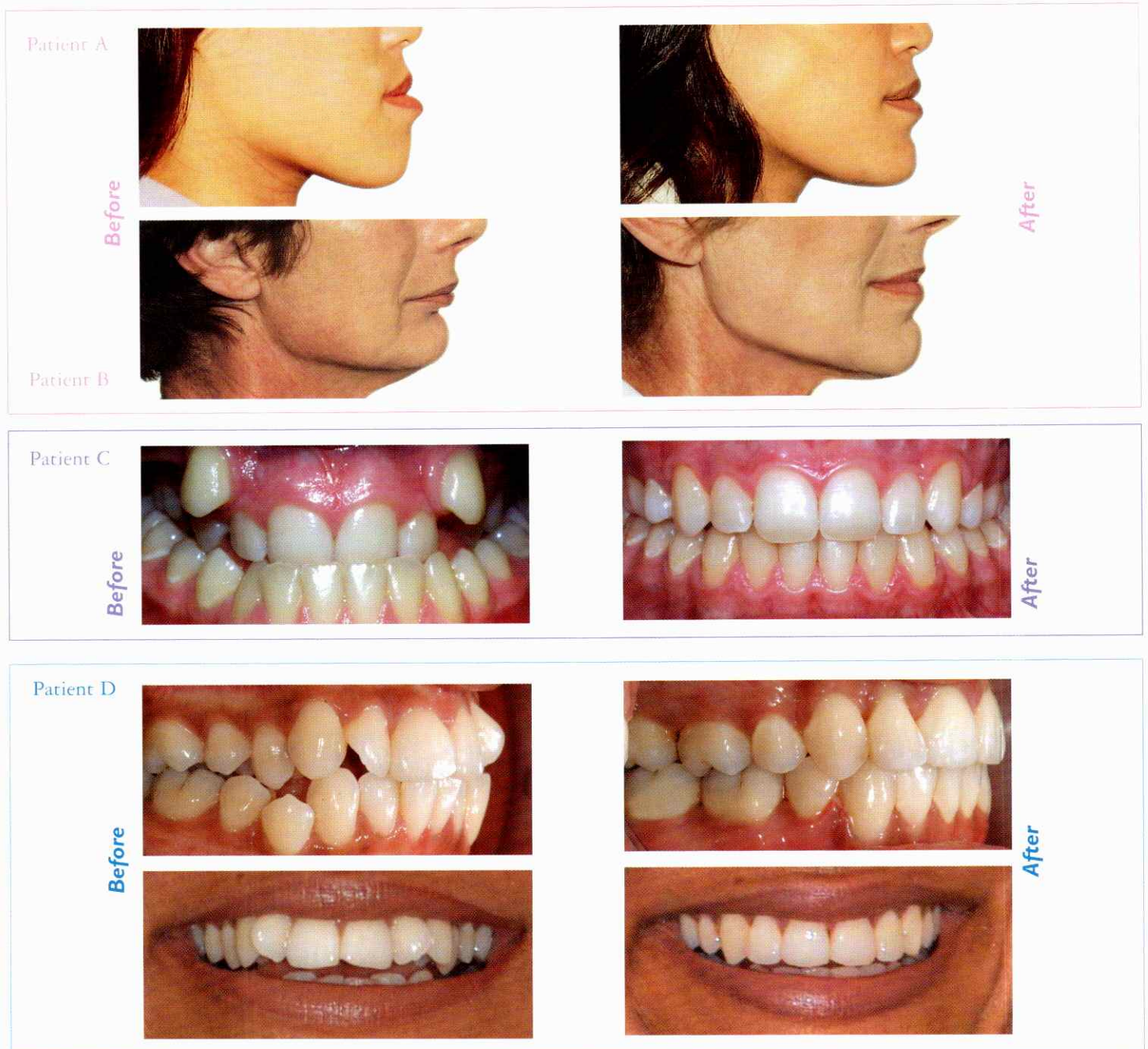
Treatment of adults

Orthodontic treatment is not restricted to children and teenagers. The basic

process involved in moving teeth is the same at any age. Orthodontic treatment can be successful for adults.

Treatment may take longer for adults because their jaw bones are more dense than in children.

As an adult's facial bones are no longer growing, some severe malocclusions cannot be corrected with braces alone. In such cases, orthodontic treatment is combined with jaw surgery (orthognathic surgery) to achieve an acceptable outcome. A pamphlet titled *Orthognathic Surgery - a guide for patients* is available from oral and maxillo-facial surgeons, orthodontists and general dentists.



The "Before" photos show serious malocclusion and crooked teeth in patients who required orthodontic treatment. The "After" photos represent the proper occlusion and improvement to appearance that can be achieved in about two years of treatment. Although results are likely to be excellent, your dentist or orthodontist cannot guarantee a "perfect smile" or that the outcome will match your expectations.

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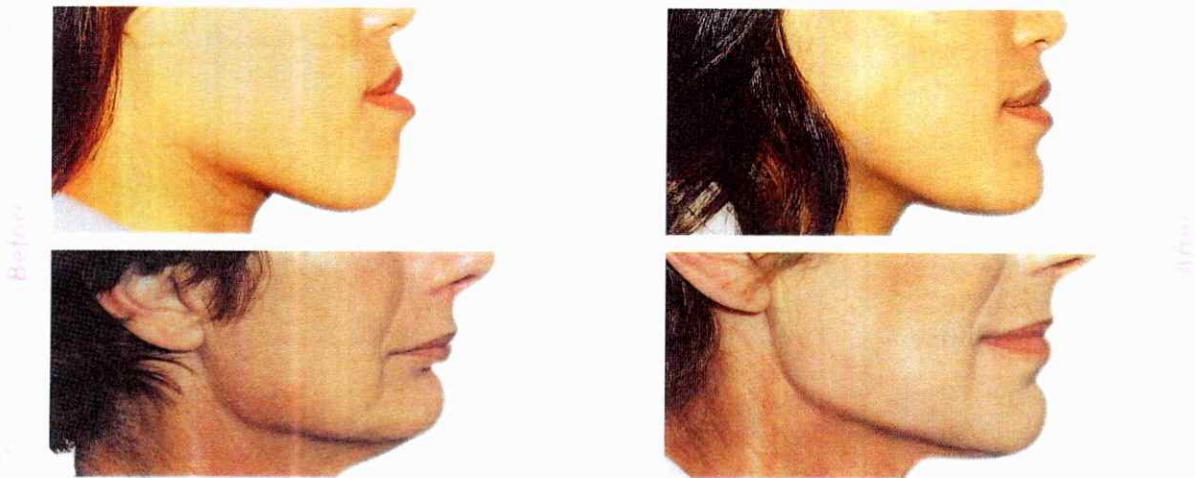
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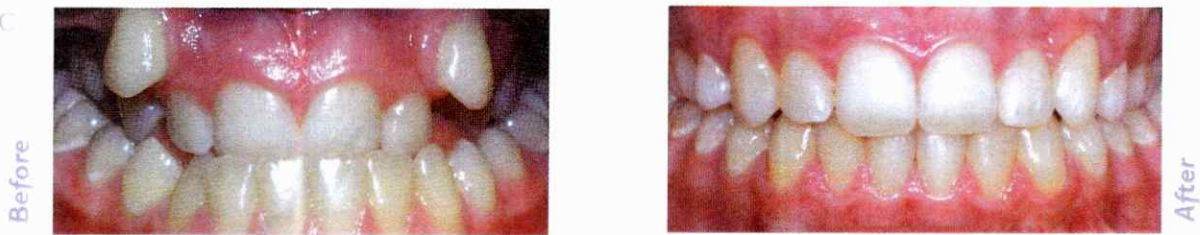
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Patient C



Patient D



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Orthodontic treatment

Examination and treatment planning

A thorough examination is important for proper diagnosis of a malocclusion. Records assist the accurate analysis of each patient. They also record the existing malocclusion for future reference. Records include:

- impressions from which plaster models of the teeth are constructed
- photographs of the teeth and face
- X-ray films of the teeth and jaws.

Advice can then be given on:

- treatment options
- when treatment should start
- how long it should last
- how much it is likely to cost.

If it is too early to start treatment, the patient is reviewed at regular intervals until the time is right to start.

Extractions and other treatments

Sometimes, one or more teeth must be removed so enough space is available to align teeth and produce a balanced outcome. Cavities in teeth should be filled before orthodontic treatment. Teeth may need to be professionally cleaned.

Braces

Braces are the most efficient and accurate way of moving teeth. Braces consist of bands, brackets and wires. They are usually made of stainless steel and selected metal alloys. Clear brackets (made of a tough ceramic) are used if the person wishes to display less metal; these braces usually cost more.

Patients return about every four to eight weeks for adjustments, wire changes and general inspection of the treatment's progress.

Importance of dental hygiene

The patient must be committed to oral hygiene and proper teeth cleaning during treatment. Thorough cleaning must be done at least twice daily and preferably after each meal. Poor oral hygiene may result in damage to teeth

and gums, and an unsatisfactory outcome.

Braces and appliances do not cause cavities. However, they can make cleaning difficult. Cleaning must be thorough so that food and plaque are removed from all tooth and appliance surfaces.

Elastic bands and headgear

During treatment, some patients may need to wear items such as elastic bands and headgear with their braces. These provide important additional forces for the correction of their teeth and bite.

Length of orthodontic treatment

For most patients, treatment takes about 24 months. Some cases may be finished earlier, and others may take longer.

The total treatment time depends on the complexity of the original problem, the type of treatment carried out, and the cooperation of the patient. To avoid treatment delays, follow instructions, keep appointments, and take good care of teeth, gums and braces.

Other orthodontic appliances

Other appliances can be used either preceding or together with braces, and sometimes as an alternative. Such appliances and their common uses include:

- sequential clear plastic aligners to correct mild to moderate dental crowding
- arch expansion appliances to correct cross bites
- functional appliances to correct jaw disharmony
- removable orthodontic plates to correct relatively simple problems.

Your dentist or orthodontist will be able to advise you on the suitability or need for these appliances.

Dental check-ups

Continue to attend your general dentist for regular check-ups at least every six months during the course of treatment.

Inconvenience during treatment

For most people, treatment will require

changes to their daily routine and diet. For example, you may not eat sticky foods such as toffees and hard foods, such as raw carrots.

Avoid soft drinks, or take them in moderation. You will need to intensify your efforts at keeping your teeth clean.

When playing contact sports, wear a mouth guard. Your dentist or orthodontist will give you more information when you start treatment.

Retention

At the completion of treatment, braces are removed, and retaining appliances ("retainers") are fitted to hold and support the teeth in their new position. These appliances may be removable plates or wires fitted behind the teeth.

Retainers play an important ongoing role in orthodontic treatment. If they are not worn according to instructions, the teeth may move out of alignment.

Your dentist or orthodontist will want to inspect the corrected teeth at regular periods for several years after the completion of orthodontic treatment. During retention and the subsequent observation period, patients are expected to attend once or twice a year.

Interpreter Service

If you have trouble reading English, telephone the translating and interpreting service.

Australia: Translating and Interpreting Service (T.I.S.) 13 14 50 (national number).
New Zealand: Interpreting and Translation Services 09 276 0014 (Auckland).

ARABIC إذا وجدتم صعوبة في قراءة الإنجليزية اتصلوا بخدمة الترجمة الخطية والشفوية على الرقم 13 14 50 في أستراليا و 09 276 0014 في نيوزيلندا

CHINESE 如果您閱讀英語有困難，請致電口筆譯服務處。澳大利亞：13 14 50 新西蘭：09 276 0014

GREEK Αν δυσκολεύεστε να διαβάσετε αγγλικά, τηλεφωνήστε στην υπηρεσία διερμηνέων μεταφραστών.
Αυστραλία: 13 14 50 Νέα Ζηλανδία: 09 276 0014

ITALIAN Se avete difficoltà nel leggere in inglese, telefonate al servizio interpreti e traduttori.
Australia: 13 14 50 Nuova Zelanda: 09 276 0014

TURKISH İngilizce okumakta zorluk çekiyorsanız, tercümanlık servisini arayınız. Avustralya: 13 14 50 Yeni Zelanda: 09 276 0014

VIETNAMESE Nếu quý vị gặp khó khăn khi đọc tiếng Anh, điện thoại cho dịch vụ thông ngôn và phiên dịch. Tại Úc: 13 14 50 tại Tân tây lan: 09 276 0014.

YOUR DENTAL HISTORY

Your dentist or orthodontist needs to know your complete medical and dental history to help plan the best possible treatment. Tell your dentist or orthodontist if you:

- are taking or have been taking aspirin, any anti-inflammatory drug (such as ibuprofen), a bisphosphonate, cough medicine, hormone replacement

medicine, the contraceptive pill, or any drug for diabetes or epilepsy

- have ever had an allergy or bad reaction to antibiotics or other medicines, nickel or other metals, latex, acrylic or adhesive
- bleed heavily when you are injured or have surgery, or
- have any blood disorder, such as haemophilia or other conditions.

Possible complications of orthodontic treatment

While orthodontic treatment can improve function of the teeth and jaws, oral health, appearance and self-confidence, complications are possible. All dental procedures are associated with some risk. While the dentist or orthodontist makes every attempt to minimise risks, complications can occur, and some may have permanent effects.

It is not usual for a dentist or orthodontist to dwell at length on every possible side effect or rare but serious complication of any dental procedure. However, it is important that you have enough information to weigh up the benefits, risks and limitations of orthodontic treatment. Most people having orthodontic treatment will not have complications, but if you have concerns about possible complications, discuss them with your dentist or orthodontist.

The following possible complications are intended to inform, not alarm you. There may be other risks that are not listed.

DAMAGE TO TOOTH ENAMEL Weakening of the tooth enamel can occur. This is called "decalcification". It is related primarily to poor or inadequate oral hygiene, and too much soft drink and sugary foods. It can lead to decay. The best way to reduce the risk of decay during orthodontic treatment is to keep oral hygiene at a high standard and reduce the intake of soft drinks and foods containing sugar. Applying fluoride and using recalcified (CPP-ACP) may also be helpful.

INFLAMMATION OF GUMS An orthodontic appliance may cause gum inflammation. Usually it is not serious and clears up when the braces are removed. In some patients, the inflammation may persist and lead to gum infection. This may require specialised treatment. At-risk patients may need to have extra check-ups and cleaning procedures.

DAMAGE TO TOOTH ROOTS As each tooth

is moved, its root may shorten a little. This usually does not affect the tooth. However, in about three patients in 100, some roots may be shortened by one-quarter or more. In most cases, this is not excessive. Substantial root shortening may affect the long-term health of the tooth and increase the likelihood of root canal treatment or tooth loss. A tooth damaged by a large cavity, a large filling or from trauma (as in a sports accident) is at greater risk of loss during treatment.

DAMAGE TO PULP (NERVE) In the first days after adjustment of an appliance, the blood supply to the pulp and tooth nerve may be reduced, causing some discomfort or pain. Uncommonly, the pulp (nerve) may die, and the tooth will require root canal treatment or extraction.

DAMAGE TO TISSUES INSIDE AND AROUND THE MOUTH If an appliance rubs on soft tissues (cheek, lips or gum), a mouth ulcer may develop. This type of ulcer usually heals quickly. In time, the tissues of the mouth "toughen up", and ulcers become less frequent.

DANGERS OF LOOSE APPLIANCES Rarely, a loose appliance may be swallowed or aspirated into a lung. Urgent medical treatment is needed if the part has gone into a lung and is causing distress. Contact the nearest hospital with an accident and emergency department.

ALLERGIES Allergies to orthodontic materials can occur but are rare. An allergy or hypersensitivity may be caused by:

- the metal nickel used in the stainless steel bands, brackets, headgear and wires
- latex in devices or the practitioner's gloves used for infection control
- composite and acrylic adhesives.

INJURY FROM HEADGEAR Modern headgear is designed to minimise the risk of injury to the face or eyes. However, head-

gear can cause injury, especially during rough play. Follow the safety instructions to minimise the risk of injury.

GROWTH If a young patient's jaws grow in an unfavourable or unpredictable way, treatment time may increase. Such growth can create a need for jaw surgery.

FAILURE OF TREATMENT Orthodontic treatment is less successful if the patient does not complete the full course. If the patient does not maintain good oral hygiene, the orthodontic appliances may have to be removed to prevent further damage to teeth and gums. This interruption or premature ending of treatment will affect the outcome.

RELAPSE Despite orthodontic treatment of a high standard and a good initial outcome, it is possible that some teeth may move away from their corrected position. This is called relapse. Front teeth are the most prone to such movement. If worn according to instructions, retainers should restrict this movement. If the relapse is severe, another course of orthodontic treatment may be needed.

Teeth continue to move during one's lifetime. This movement may not be related to the orthodontic treatment and can be restricted by occasional wearing of the orthodontic retainers.

PROLONGED TREATMENT TIME Treatment may become much longer than originally predicted. The main reasons are poor patient cooperation and compliance with the orthodontic program.

JAW-JOINT PROBLEMS ("TMD") Orthodontic treatment may be linked to increased risk of jaw-joint problems or a temporomandibular disorder (TMD). However, no proof has been found.

Finding a dentist or orthodontist

In Australia, you do not need a referral to see a dentist or orthodontist. You can find and contact any orthodontist directly. Visit the websites of the Australian Society of Orthodontists and the Australian Dental Association:

www.aso.org.au and www.ada.org.au

YOUR DENTIST OR ORTHODONTIST

No two orthodontic problems are the same.

Cost of Treatment

The cost of treatment will depend on the severity of the problem and the dentist's or orthodontist's fee scale.

In Australia, the fee for full orthodontic treatment involving upper and lower braces varies from about \$3,000 to \$7,000, sometimes more.

The orthodontist's fee usually covers the entire treatment including fitting of braces, periodic adjustments, removal of the braces, fitting of retainers, and visits to assess the results of treatment. Generally, the fee does

not cover the initial consultation, records or other preparatory steps for the fitting of braces.

You should discuss costs fully before proceeding with treatment.

Dental Benefit Funds

If you have private health insurance, your fund may offer some rebate on orthodontic treatment.

The rebate depends on your level of health cover and how long you have been in the health fund. You should discuss the rebate with your health fund before starting orthodontic treatment.

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