



# The need for Orthodontic Treatment

The correction of malaligned teeth



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## The need for Orthodontic Treatment

The correction of malaligned teeth

Rs.1200

Designed & produced by

**SMART DOC®**

[www.smartdocposters.com](http://www.smartdocposters.com)

E-mail: [info@smartdocposters.com](mailto:info@smartdocposters.com)

Ph: +91 9846244680

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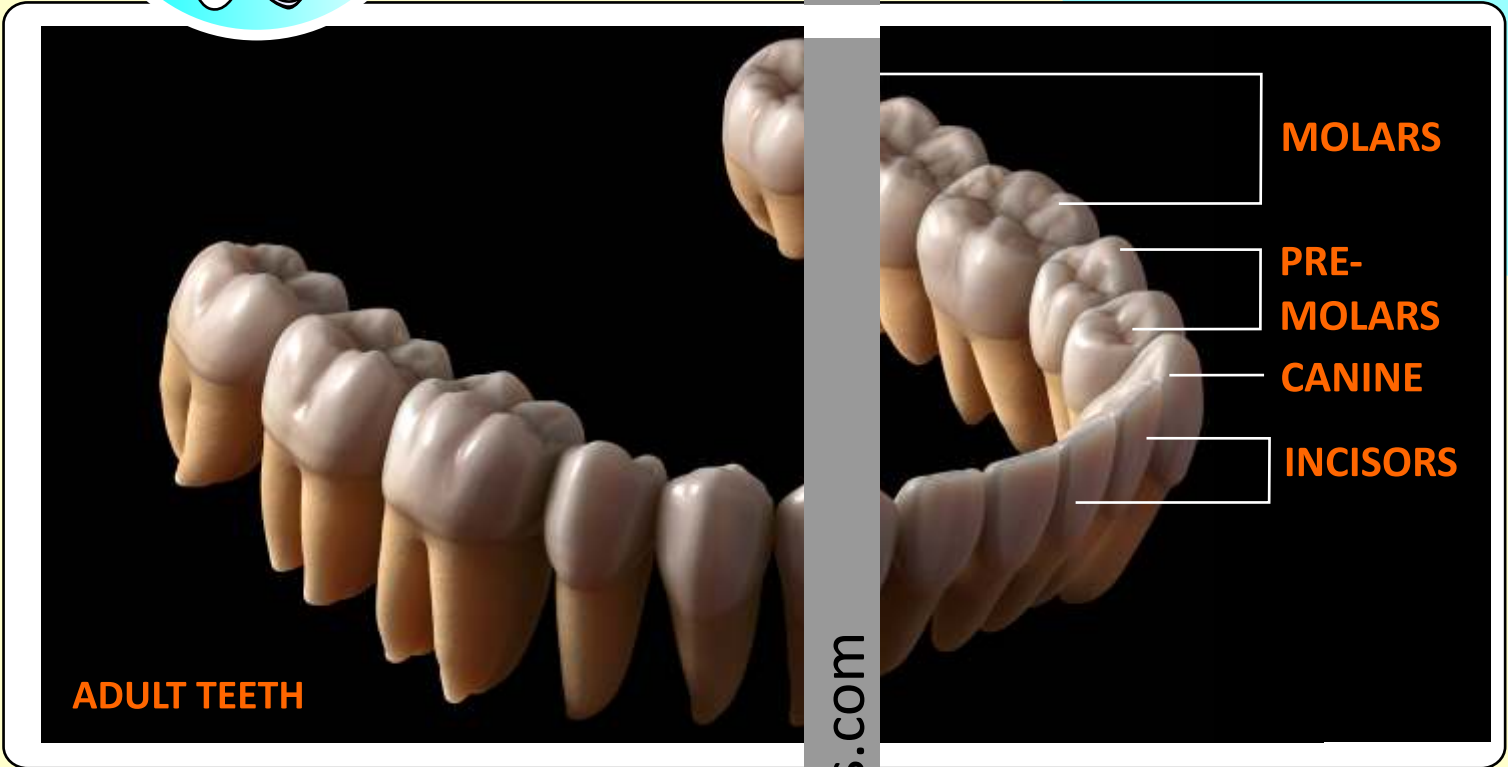
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Issued in interest of Public Dental Awareness



# Know... Your Teeth !

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ADULT TEETH

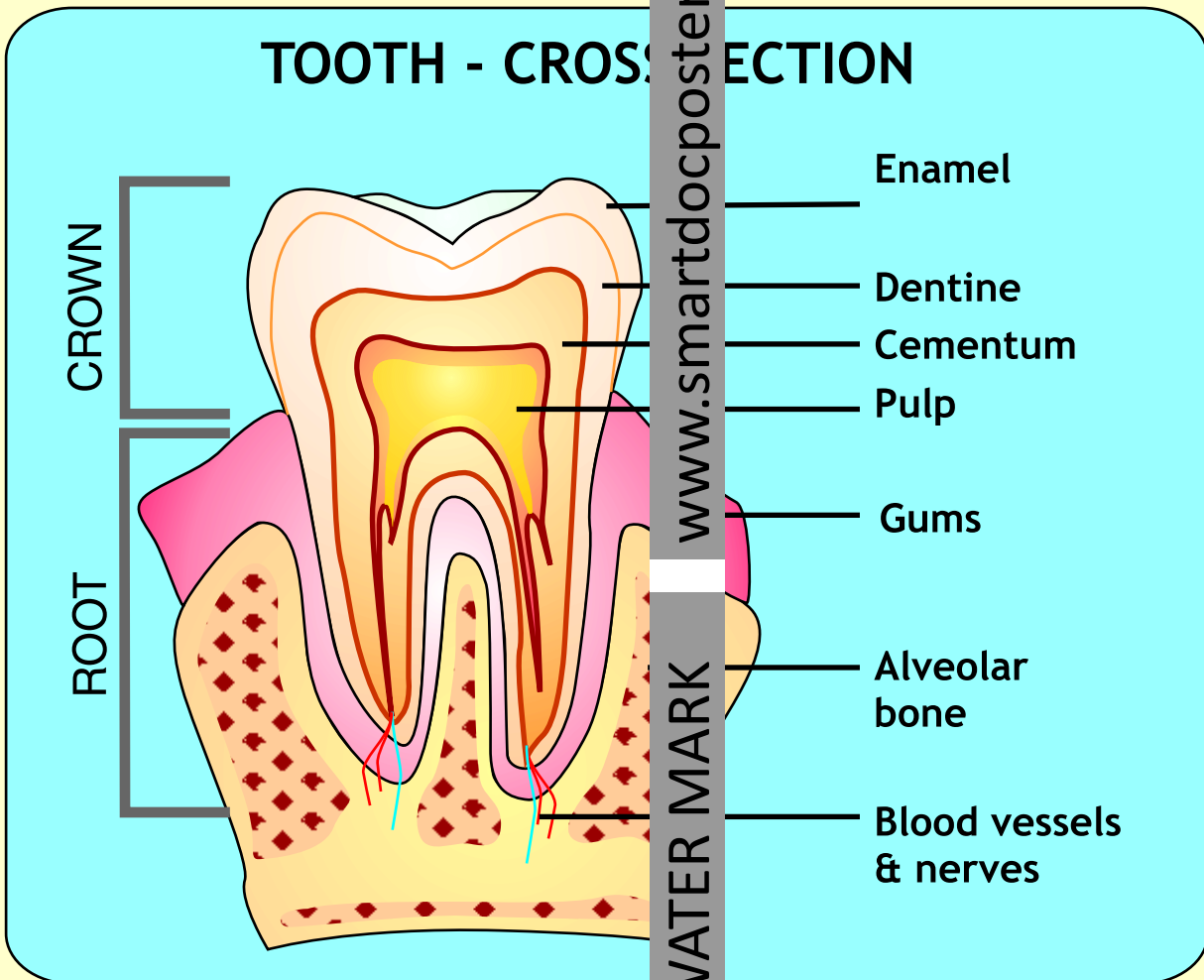
MOLARS

PRE-MOLARS

CANINE

INCISORS

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## TOOTH - CROSS SECTION

CROWN

ROOT

Enamel

Dentine

Cementum

Pulp

Gums

Alveolar bone

Blood vessels & nerves

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At what age

# the Tooth

## Emerges & Falls out

### UPPER TEETH

Upper Teeth	When tooth emerges	When tooth falls out
Central incisor	8 to 12 months	6 to 7 years
Lateral incisor	9 to 13 months	7 to 8 years
Canine	16 to 20 months	10 to 12 years
First molar	13 to 18 months	9 to 11 years
Second molar	25 to 30 months	10 to 12 years

### LOWER TEETH

Lower Teeth	When tooth emerges	When tooth falls out
Second molar	23 to 28 months	10 to 12 years
First molar	14 to 18 months	9 to 11 years
Canine	17 to 21 months	9 to 12 years
Lateral incisor	10 to 14 months	7 to 8 years
Central incisor	6 to 10 months	6 to 7 years

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# The need for ORTHODONTIC Treatment

Mal occlusion of teeth (improper alignment of teeth) if not corrected at the right time ,may lead to the following problems ...

## Bad facial appearance

Mal occlusion of teeth causes bad facial appearance of the individual .

## Psychological disturbance

Bad facial appearance may cause psychological disturbances in the individual.

## Risk of tooth decay

Mal aligned teeth makes maintaining of proper oral hygiene difficult . This leads to occurrence of Dental caries (tooth decay)

## Risk of gum disease

Mal aligned teeth makes mainiting of proper oral hygiene difficult . This lead to occurrence of gum disease .

## Risk of trauma

Protruded teeth are always prone to risk of fracture during play or accidents.

## Abnormalities of function

Mal aligned teeth causes functional disturbances like improper chewing , speech defects, breathing problems etc.

## Jaw joint problems

Mal aligned teeth causes temporo-mandiubular joint ( jaw joint) pain and dysfunction.

Mal occlusion of teeth can be corrected by  
**Orthodontic treatment .**

# These are some of the most common cases of teeth mal alignment which requires Orthodontic treatment

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**Crowded**

Crowding is the lack of space for all the teeth to fit normally within the jaws. The teeth may be tilted or displaced.



**Open Bite**

In this case, the front upper and lower teeth do not touch when the mouth is shut.



**Under Bite**

An under bite occurs when the lower jaw protrudes beyond the upper jaw.



**Missing Teeth**

Some people are born without certain teeth, and this condition is called congenitally missing teeth.



**Protruded**

Protruding teeth happen when the top jaw extends significantly farther forward than the bottom jaw.



**Cross Bite**

In a normal bite, the upper back teeth sit slightly outside of lower back teeth. However, in crossbite, the upper back teeth sit inside the lower back teeth.



**Deep Bite**

If your upper front teeth come down too far over your bottom front teeth when you close your jaw, that's a deep bite.



**Thumb Sucking**

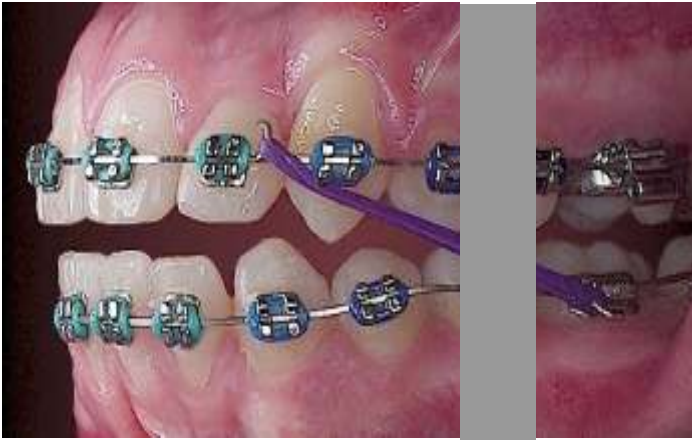
Teeth mal-alignment due to thumb sucking habit.

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# Types of orthodontic treatment

01



**Fixed orthodontic treatment**

02



**Removable orthodontic treatment**

03



**Invis aligner orthodontic treatment**

04



**myofunctional orthodontic treatment**

Depending on the type and severity of the case your Orthodontist will suggest which type of treatment is suitable for you.

01

# Fixed Orthodontic treatment

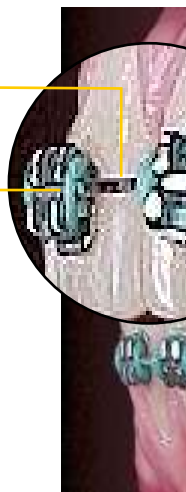


In fixed orthodontic treatment , Braces are fixed on to the tooth surface and activated by additional appliances. This appliance cannot be removed by the user.

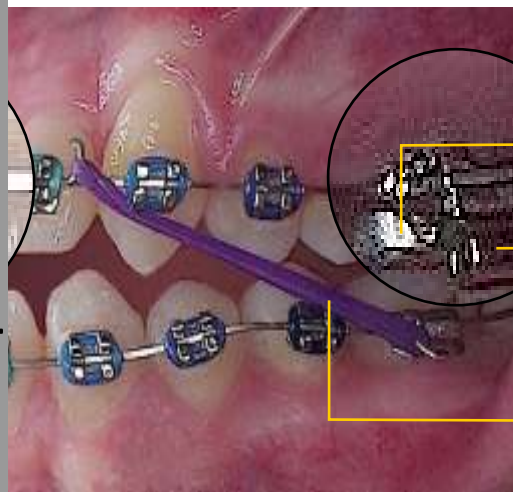
## Parts of a FIXED ORTHODONTIC APPLIANCE

ARCH WIRE

BRACKET



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MOLAR BAND

BUCCAL TUBE

ELASTIC

## Types of Braces



Steel Braces



Ceramic Braces



Colour Braces



Invisible Braces  
or  
lingual braces





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# Invisible Orthodontic Treatment

By using  
**LINGUAL BRACES**



LINGUAL BRACES

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- These braces are not visible outside!
- No Aesthetic worries !
- Reduced stress to Jaw & Gums.

CERAMIC BRACES



The braces are made of ceramic material .  
Aesthetically better than metal braces.



Ceramic Material .  
An metal braces.

METAL BRACES



The conventional Metal braces ,commonly used.

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# Removable Orthodontic treatment

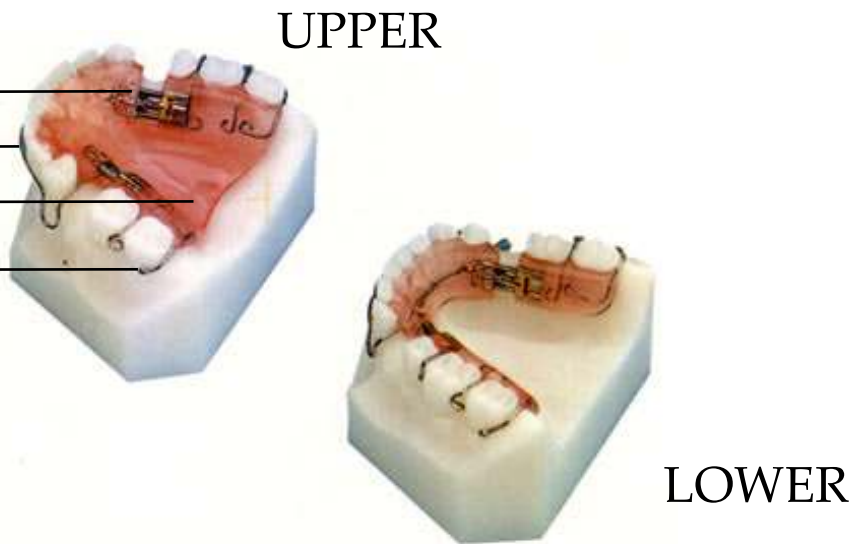


Removable orthodontic appliance uses single orthodontic wire and acrylic plates .  
 This appliance can be removed by the user.

## Part of a REMOVABLE ORTHODONTIC APPLIANCE

- EXPANSION WEDGE
- LABIAL BOW
- ACRYLIC PLATE
- CLASP

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## Coloured acrylic plates

In contrast to the traditional pink colour, Coloured acrylic plates are also available.



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### 03 Orthodontic treatment

## Using Invisalign

Invis align orthodontic treatment uses a series of...  
**CLEAR, REMOVABLE, PAIN-FREE**  
**-TEETH ALIGNERS**, which are used as  
An alternative to traditional metal braces !



### Advantages

As the aligners are **COMPLETELY TRANSPARENT**, they are almost invisible when compared to traditional wire and bracket braces. So they are preferred due to cosmetic reasons.

As the device is **REMOVABLE**, food consumption is easier than with metallic braces.

Invis align treatment have been claimed to have **QUICKER RESULTS** than traditional orthodontics.

The aligners are **MORE COMFORTABLE** Than metallic braces.

Ask your Doctor for more details

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# 04 Orthodontic treatment

## Using MYO-FUNCTIONAL Appliances

In some cases, Orthodontic treatment procedure may include the use of Myo-functional appliances.

These appliances depend on Cranio-facial muscles & soft tissues for their action.



BITE PLANE



VESTIBULAR SCREEN



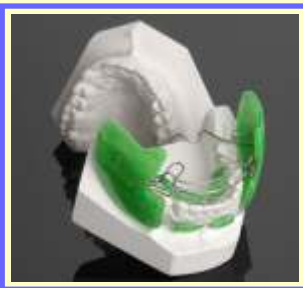
TWIN BLOCK APPLIANCE



HERBST APPLIANCE



ACTIVATOR



FRANKEL APPLIANCE



BIONATOR



JASPER JUMPER

### ORTHOPAEDIC Appliances



FACE MASK



HEAD GEAR

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# Facts to know about Orthodontic Treatment

## The best time to start orthodontic treatment

By the Age of 7, Orthodontic Problems in children, can be identified. And, Treatment can be fixed.



## Is there need for tooth removal?

Extraction of teeth is indicated in orthodontic cases having severe crowding of teeth.



## Is the treatment procedure painful?

Only very mild pain occurs. This can be eliminated by taking medicines... Braces in Fixed Orthodontic appliance can cause laceration of Tongue & Lips if not careful.



## Duration of treatment

Depends on the severity of the case. treatment procedure may last from 8 to 18 months.



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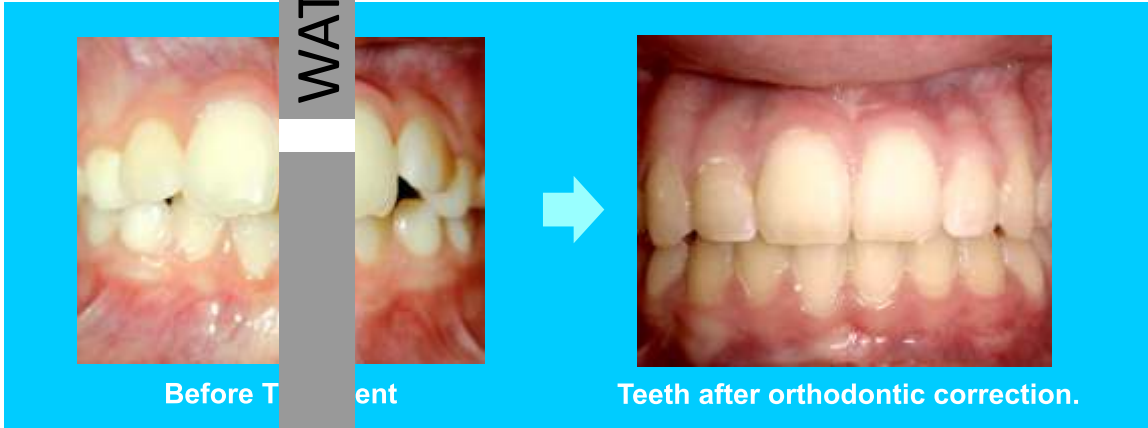
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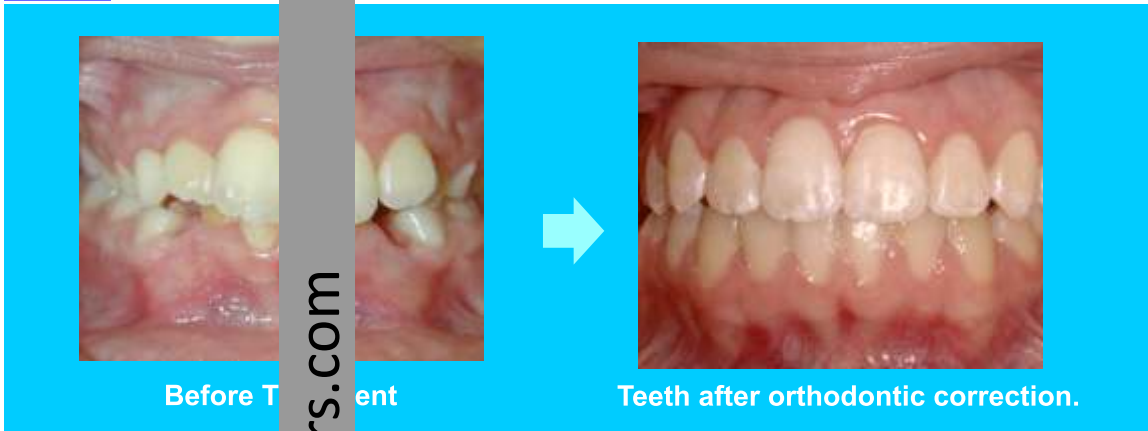
# Before & After

# Orthodontic treatment

CASE-1



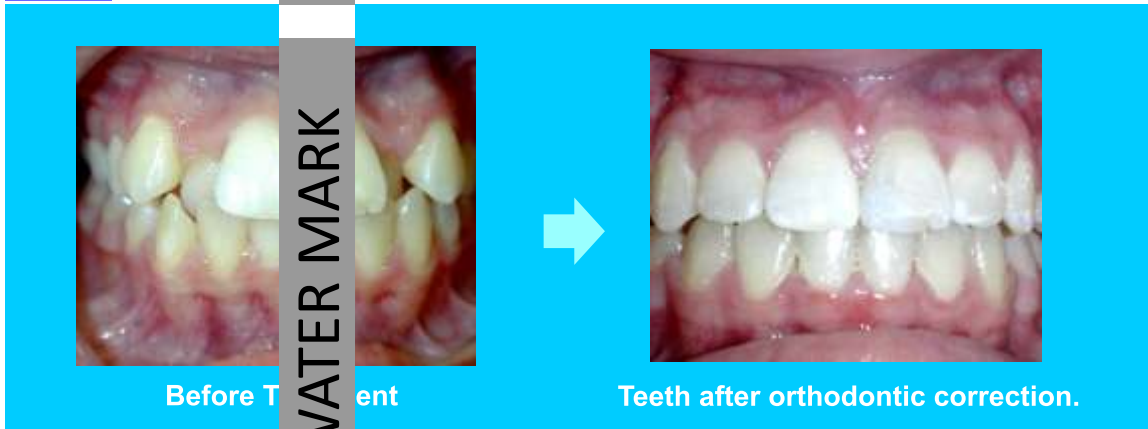
CASE-2



CASE-3



CASE-4



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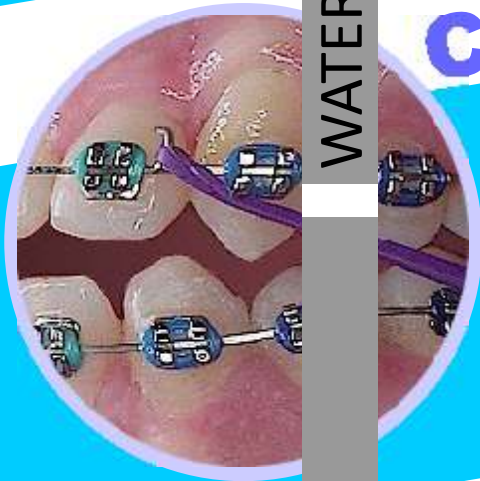
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Care to be taken

# If you are on Orthodontic Treatment



**Do not use hard sticky food**



**Never indulge in heavy sports (foot ball , boxing etc.)**

**Use seatbelts while driving**



**Clean your braces using inter- dental brushes after every meal**

Or



**Specially made orthodontic tooth brushes are also available**



**Do not miss your dental appointments**

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# The need for early Orthodontic Treatment in Children

This is done when the child is still growing, and have most of their primary teeth.



The aim of this early orthodontic treatment is to :

- 01 Correct facial asymmetry by directing jaw growth.
- 02 Shifting protruding teeth into place to minimize the risk of trauma.
- 03 Making space for the grown-up teeth to come in straight.
- 04 Helping with crowding to prevent permanent teeth from getting impacted or erupting at the wrong angles.
- 05 Correcting problems with chewing and speaking.
- 06 Boosting the Child's confidence and self-esteem.



## Phase 1

# Orthodontic treatment

This phase involves a child wearing an appliance like a **space maintainer, palatal expander or limited braces**, which aims to bring the teeth and jaws in normal growth pattern.



Space maintainer



Palatal expander

## Resting period

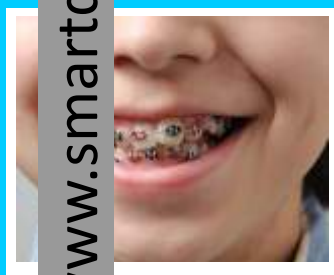
As the goals of phase 1 orthodontic treatment, is achieved a resting period is given, until the remaining baby teeth fall out.

## Phase 2

# Orthodontic treatment

Phase-2 begins around the age of 12 or 13, which may consist of **fixed braces, removable appliance, or Invisalign** (Clear aligners).

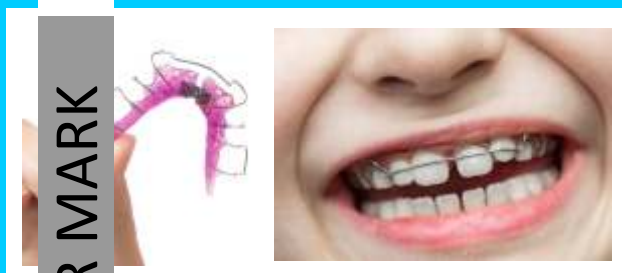
This will help to correct the bite, and give them a beautiful, healthy smile.



Fixed braces



Invisalign



Removable appliance

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# Space Maintainer

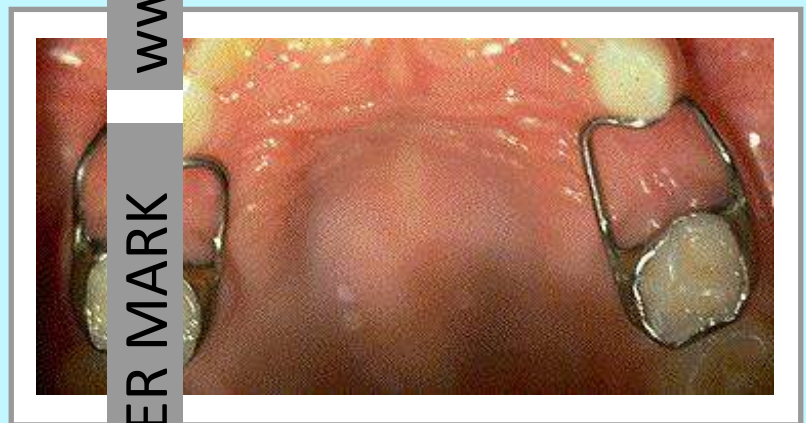
In children,  
Early loss of primary  
teeth causes the  
permanent teeth to  
erupt in an abnormal  
pattern.

Later this needs  
correction by  
orthodontic braces.

So, to avoid that ,  
space maintainer  
devices are given,  
which will preserve  
the space until the  
permanent teeth  
erupts.



An x-ray showing the missing mandibular  
secondary primary molar.  
This is a situation requiring placement of a  
space maintainer , for the proper eruption of  
the underlying permanent pre- molar tooth.



Space Maintainers

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# Palatal Expander

At the pre-pubertal stage in human development, the left and right sides of the upper jaw are connected by a soft spot .

Palatal Expanders are placed onto the roof of the mouth, usually by connecting it to the top back molars .

Palatal Expanders takes advantage of the soft spot ,and separates the left and right sides of the jaw, making it wider.

Expander are used to correct these problems :

**Crowding of teeth**

**Crossbite:**

The upper teeth in the back of the mouth will close inside the lower teeth instead of the normal position.

**Impacted teeth:**

If a tooth has failed to erupt fully or is blocked by other teeth.

**To improve Aesthetics**

The two types of expanders are fixed and removable.



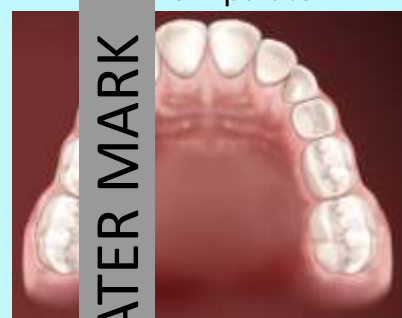
Removable Palatal Expander



Fixed Palatal Expander



Narrow palate



Palate width using palate expander

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# Harmful oral habits commonly seen in children

Fixed or Removable  
**Habit Breaking Appliances**  
are used to correct these problems.

Harmful habit

Effects

Treatment



**Thumb Sucking  
Nail Biting**



The teeth becomes malaligned due to this habit.



**External habit breaking appliance** to prevent thumb sucking.



**Intra-oral habit breaking appliance** to prevent thumb sucking.



**Lip Biting**



Lip injury



**Intra-oral habit breaking appliance** to prevent lip biting.

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## Harmful habit

## 's effects

## Treatment



**Mouth Breathing**



Protruded teeth due to mouth breathing habit.



**Intra-oral habit breaking appliance** to prevent mouth breathing.



**Tongue Thrusting**



Malocclusion of teeth (Overbite) due to tongue thrusting.



**Intra-oral habit breaking appliance** to prevent tongue thrusting.

## The benefits of Oral habit-breaking appliances

They help in getting rid of your child's oral habits in a quick, effective, and painless way.

These appliances minimize the risk of dental problems like misalignment of teeth, poor teeth development, sore gums, etc which will later require Orthodontic treatment.

Oral habit-breaking appliances can also be placed inside the mouth in such a way that they remain invisible when your child eats, talks, and smiles.

Dental Check-up  
Every 6 Months

Keeps your teeth  
healthy & strong!



Golden rules for good oral health



Brushing



- Brush twice daily
- Remember to brush at night before going to bed
- Change your tooth brush every 2 months
- do not use frayed tooth brushes



Scaling

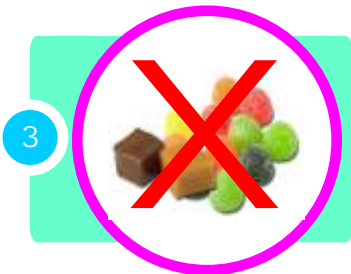


Before Cleaning  
The teeth are covered by calculus deposits and stains



After Cleaning

Professional dental cleaning should be done once every 6 months -to remove the calculus deposits accumulating on the teeth.



Diet care

Avoid in-between snacks & sweet sticky food.



Dental check-up

Routine dental check -up should be done every 6 months.

GOOD HEALTH DEPENDS ON GOOD TEETH

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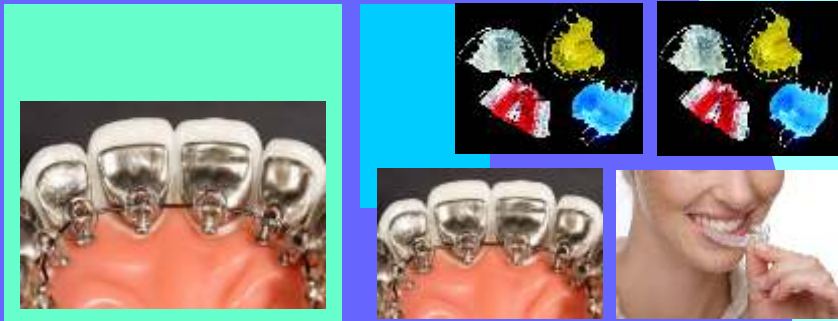
BRUSH  
2 WICE  
DAILY

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Have a Dental check up  
once every 6 months

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