

Oral health and oral diseases



**World Health
Organization**

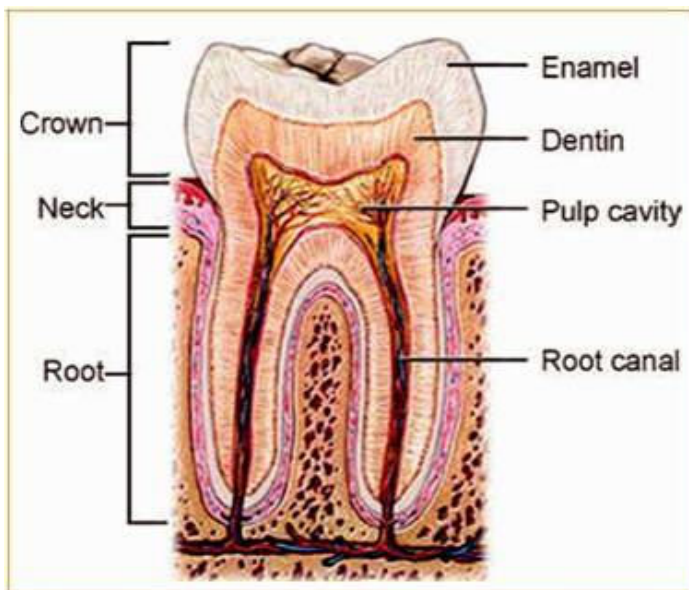
Regional Office for South-East Asia

Acknowledgements

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How do normal teeth and gums look like?



Healthy gums and teeth

How do normal teeth and gums look like?

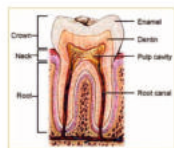
The pearly white visible part of the tooth is the crown and the longer portion anchored inside the gum and the bone is the root.

The outermost hardest white cover is known as the enamel. The inner relatively less hard part is the dentin. It surrounds the pulp containing blood vessels and nerves of the tooth.

Teeth are embedded in the jawbone which is covered from outside by a specialized layer of the skin, called the gums / gingiva.

- Healthy gums are generally pink in colour and stippled like orange peel
- They are firmly attached to the underlying bone.

How do normal teeth and gums look like?



Healthy Gums and Teeth

Small Text

FOR HEALTH CARE PROVIDER

Diseases affecting teeth and mouth



Dental caries



Gum disease



Ulcers in mouth



White patch in mouth mucosa

FOR PATIENTS

Common oral diseases

Teeth

- Dental caries and its complications

Gums

- Gingivitis (bleeding gums) and periodontitis

Oral mucosa

- Oral ulcer
- White or red patches

Broken teeth and jaws

Diseases affecting teeth and mouth



Dental Caries



Gum disease



Ulcers in mouth



White patch in mouth mucosa

Oral leukoplakia

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Symptoms of dental caries

- Brown and Black spot/ discoloration
- Hole/Cavity on the tooth or in between two teeth
- Broken teeth
- Sensitivity on consuming hot and cold food
- Food lodgment on or in between teeth
- Tooth pain on touch/on bite
- Acute un tolerable pain



Complications, if left unnoticed

- Abscess formation
- Pus discharge
- Swelling
- Fever



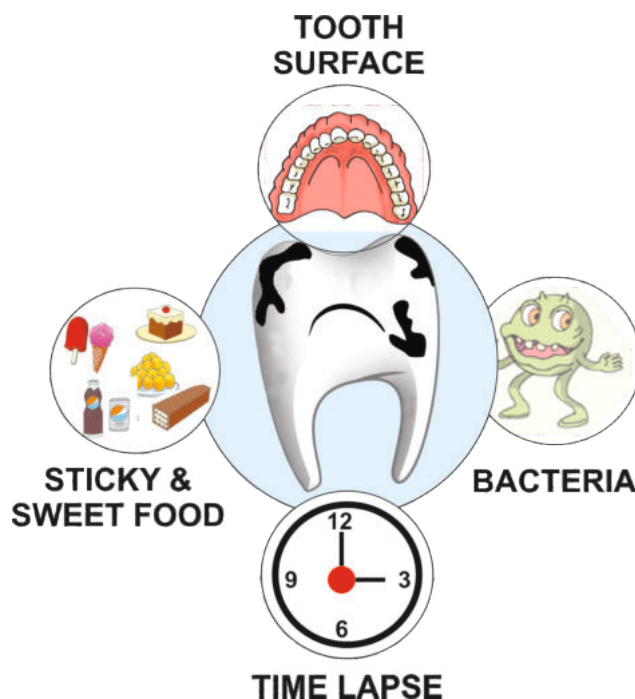
FOR PATIENTS

Symptoms of dental caries

- Brown and black spot/ discoloration
- Hole or cavity in the tooth
- Broken tooth
- Sensitivity to hot and cold food
- Pain after taking sweets
- Food lodgment on or in between teeth
- Pain
- Pus discharge
- Swelling
- Fever

Causes of dental caries

- Consumption of sweet and sticky food
- Accumulation of bacteria
- Food left on teeth or in between teeth for longtime



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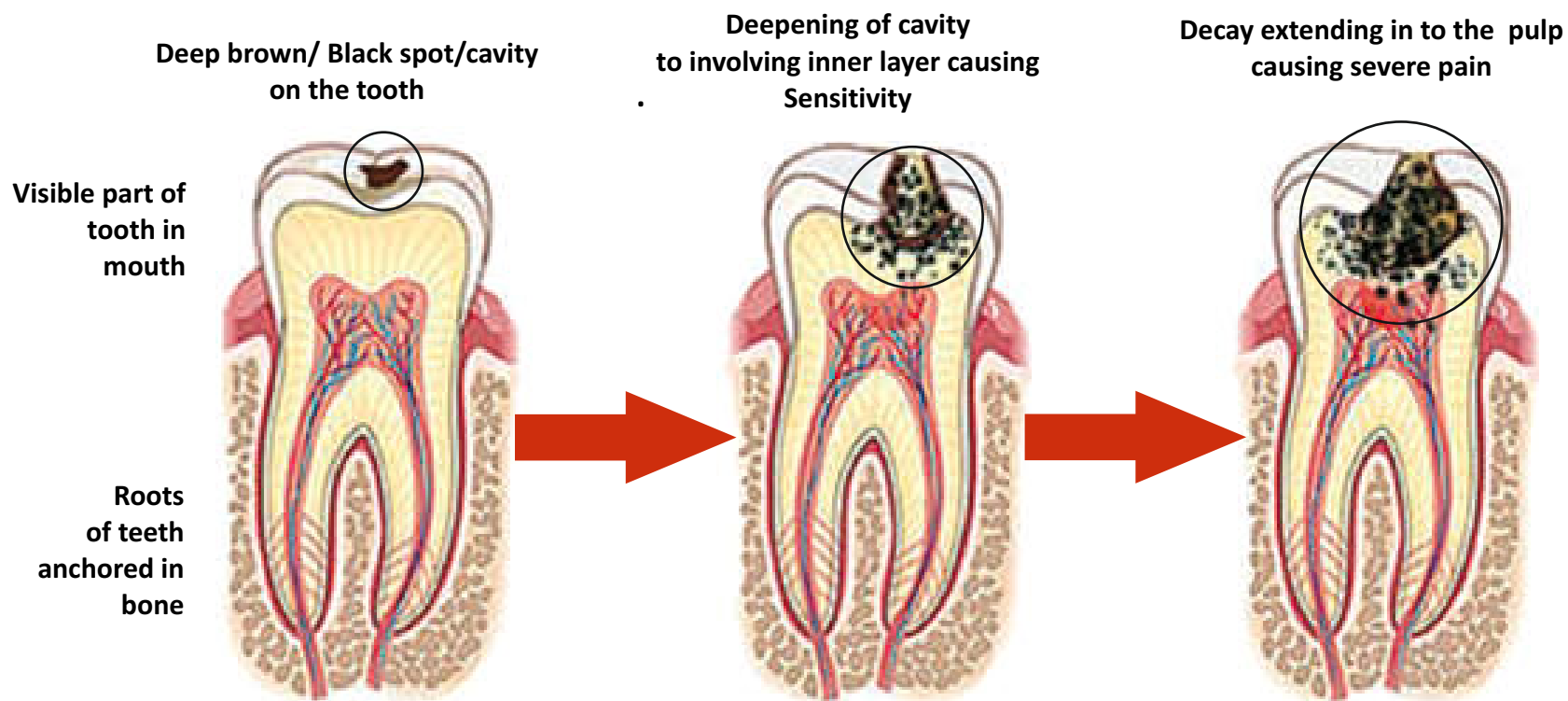
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Dr. H. H. H.

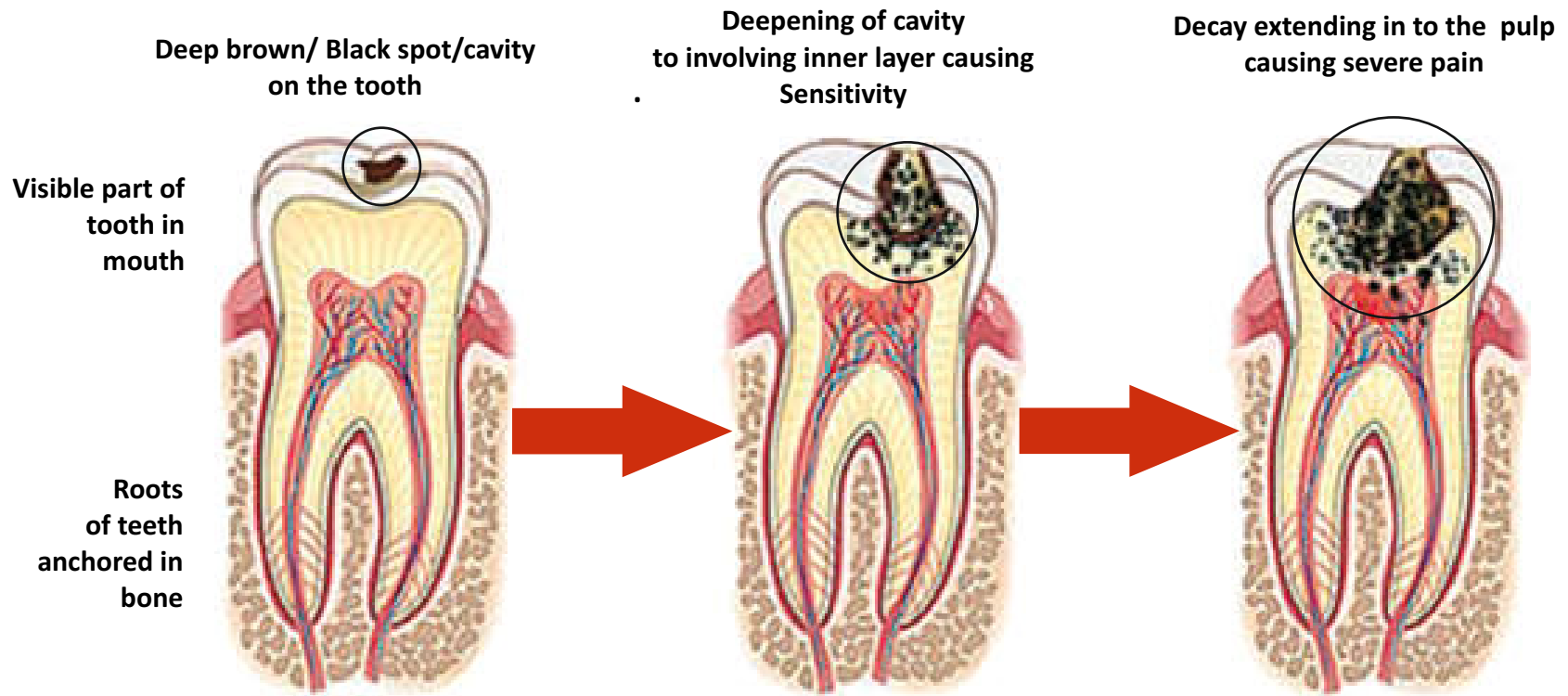
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Progression of dental decay



FOR PATIENTS

Progression of dental decay



FOR HEALTH CARE PROVIDER

Tooth decays affecting baby teeth



Rapid destruction of multiple baby teeth



Do not let baby sleep with milk bottle in the mouth



Rice size toothpaste for up to 3 years of age



Pea size toothpaste for more than 3 years of age

FOR PATIENTS

What is nursing bottle caries

- It is seen in babies on bottle feed
- Involves rapid destruction of tooth structures
- Most commonly affects upper front and lower back teeth
- Lower front teeth are spared as they are covered by the tongue during feeding

Symptoms and signs

- Early loss of milk teeth
- Difficulty in eating
- Unpleasant appearance
- Pain and dental abscess
- Delayed eruption of permanent teeth

Prevention of nursing bottle caries

- Do not let baby sleep with sweet nipple or milk bottle in the mouth
- Last drink should always be water
- Small babies should be given water as last feed before sleeping
- Assist in brushing after first tooth erupts in oral cavity
- Use rice size toothpaste for up to three years and pea size paste for more than three years children
- Avoid use of sweetened milk, cola, citric juices, sticky and sweet food

Tooth decays affecting baby teeth



Rapid destruction of multiple baby teeth



Rice size toothpaste for up to 3 years of age



Do not let baby sleep with milk bottle in the mouth



Pea size toothpaste for more than 3 years of age

Brush regularly

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Gum diseases

- Bleeding gums/ swollen gums is also known as gingivitis
- If gingivitis is not treated, it may progress to a severe stage causing loose teeth and abscess formation



Bleeding gums



Advanced gum disease

What are common gum diseases, sequelae and prevention

- The gum diseases are caused by poor oral hygiene and plaque accumulation leading to inflammation of gums
- If plaque is not removed regularly, it may harden to form calculus

Common gum diseases are

- Bleeding gums-gingivitis
- Advanced/severe stage of gingivitis-periodontitis

Prevention

- Rinse mouth with water
- Maintain oral hygiene with tooth brush at least twice a day
- Avoid picking teeth
- Patient having diabetes, heart diseases or on any regular medication will require extra precaution for dental treatment.
- Pregnant mothers also need referral to dentist.
- Visit to dentist for expert dental opinion.

Sequelae of gum diseases

- Foul odour from the mouth/bad breath
- Deposits on teeth
- Bleeding from gums
- Swollen gums
- Dull constant ache
- Loose teeth
- Gaps in between teeth
- Loss of teeth
- Gum abscess

Gum diseases

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Bleeding gums



Advanced gum disease

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Irregular alignment of teeth



Normal alignment



Irregular alignment



Top front teeth jetting out

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Irregular alignment of teeth/jaws (Malocclusion)

Any deviation from the normal alignment of teeth and/or upper/lower jaw

It may compromise the appearance or the functions like speech and chewing

Causes of malocclusion

- Early loss of milk teeth due to dental decay
- Oral habits causing abnormal pressure on teeth and surrounding structures such as thumb and finger sucking, tongue thrusting



Signs and symptoms

- Abnormally forward or backward teeth/jaw
- Gaps between the teeth
- Uneven crowded teeth
- Difficulty in keeping teeth clean
- Cross bite/reverse bite
- Asymmetry of face
- Pain in the joint between upper and lower jaw
- Difficulty in pursing lips
- Unpleasant appearance

Irregular alignment of teeth



Normal Alignment



Irregular Alignment



Top Front teeth jetting out

Protrusion

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Lost teeth are replaced with complete or partial dentures



All teeth are lost



Complete upper and lower denture



A few teeth are lost



Partial upper denture

Missing tooth/teeth

The jaws without teeth are called “edentulous”

Partially edentulous- when a few teeth are missing from either upper or lower jaw

Completely edentulous - when all teeth are missing

Signs and symptoms:

- Missing teeth
- Inability to chew
- Difficulty in speech in case of missing front teeth
- Unpleasant appearance and compromised smile

What you should do?

- Advise for artificial dentures which aids in replacement of missing teeth.
- It can be removable or fixed, complete or partial
- Dentures should be removed at night before sleep
- Keep the dentures in water and clean them



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Patches in the mouth and oral cancer



White and red patches in the mouth are not a good sign
A non-healing ulcer on a patch is considered dangerous
Some patches are not dangerous

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Patches in mouth could be oral premalignant lesions and oral cancer

Risk factors

- Betel nut/smokeless/smoking tobacco consumption in any form
- Long standing irritation due to sharp teeth and faulty dentures
- Frequent and long standing alcohol consumption

Advise brief intervention for quitting tobacco/betel or such products

- Delay the consumption of tobacco
- Distract/divert the mind from tobacco towards any other activity like music/reading/conversing with friends
- Drink water frequently and keep the mouth wet to reduce the craving for tobacco
- Deep breathe/do exercise to control the cravings

Symptoms

- Long standing non-healing ulcer for more than 2 weeks
- A white or red raised patch in the mouth
- Restriction in mouth opening
- A lump or growth in the mouth
- A lump in the neck
- Difficulty in chewing/swallowing
- Reduced mouth opening
- Burning sensation in the mouth
- Sudden change in voice

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Oral Health

Fungal infection of mouth - candidiasis/oral thrush



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Fungal infection

Most common fungal infection of the mouth is candidiasis also called oral thrush

Causes

- Neglect of oral hygiene
- Continuous use of antibiotics/steroids
- Dry mouth
- Immune compromise
- Difficulty in swallowing/chewing
- Ill fitting denture
- Use of inhalers by asthmatics
- Chemotherapy/radiotherapy.

Signs and Symptoms

- Burning sensation/pain
- Cracked corners of mouth
- Foul odour
- Difficulty in swallowing/chewing
- Altered taste
- Whitish curd like patch

Advise

Advise on discontinuing the use of ill fitting/faulty dentures

- Correction of dentures
- Rinsing with salt water
- Tooth brushing
- Advise on consumption of more water and keeping mouth wet

Fungal infection of mouth - candidiasis/oral thrush



Oral thrush

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Trauma to face or teeth

- Broken tooth/knocked out tooth
- Bleeding
- Numbness or pain
- Wounded and swollen lips



Trauma to face or teeth

Causes

- Playing/cycling/running
- Physical violence
- Sports injuries
- Falls

Actions to be taken

- Arrest bleeding with pressure/cold pack
- Save the knocked out tooth/broken tooth fragment and place it in milk/water/tender coconut water
- Visit to the nearest dentist within one hour
- If the injury involves face/head, refer to the nearest health facility immediately

Trauma to face or teeth

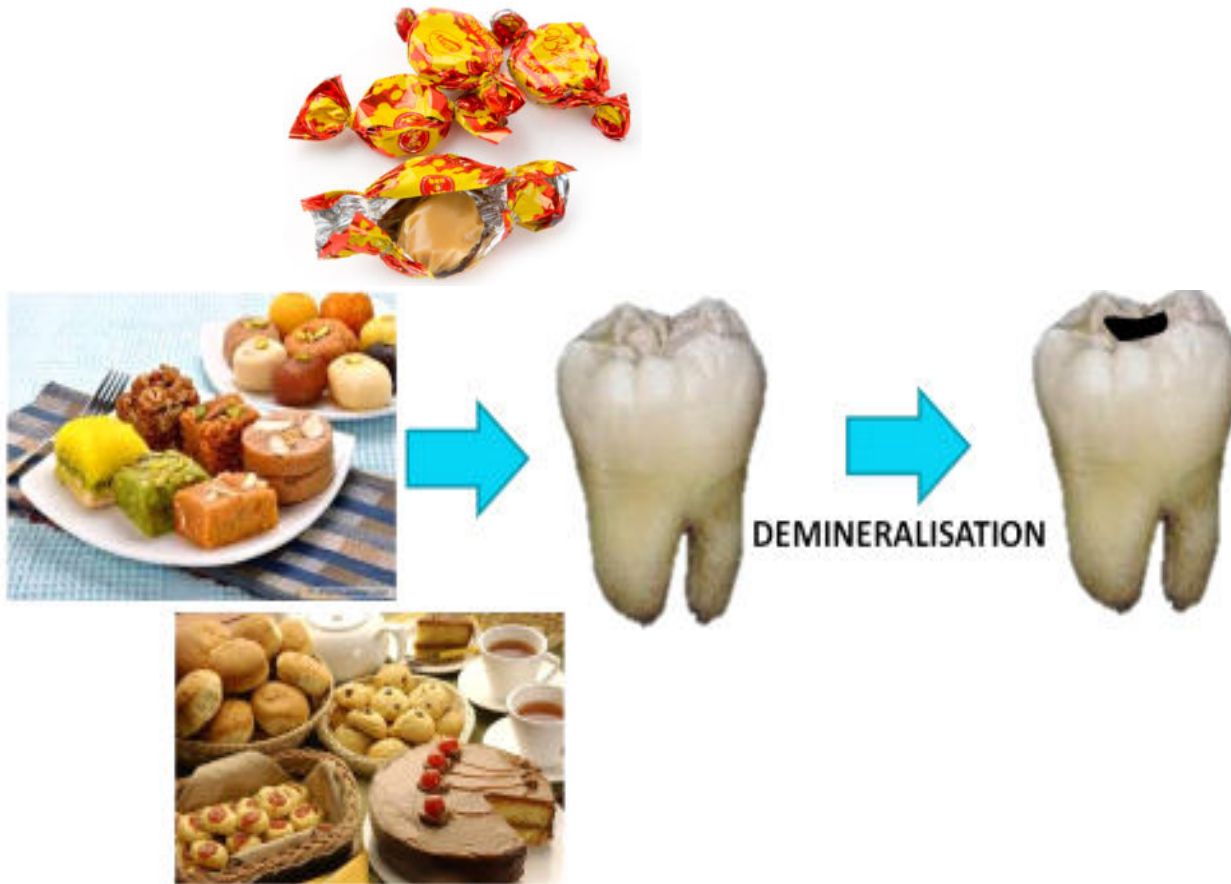
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Dr. P. S. S. S.

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Caries causing food



Cariogenic food

- Dietary habits can influence teeth during and after development and eruption
- Poor oral hygiene along with consumption of cariogenic diet like chocolates, toffees, biscuits, cake and sugar sweetened beverages (eg. cold drinks) leads to development of dental decay
- Refined sugars are the main diet factor for tooth decay
- Frequent snacking in between meals also leads to dental decay

Cariogenic food



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Breast feeding



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Breast feeding

- Breastfeeding is the unquestioned optimal source of infant nutrition and has health benefits for both mother and children
- Evidence support breastfeeding prevents dental decay on primary dentition and malocclusion
- Breastfeeding duration longer than 12, 18 or 24 months increases caries risk, as does high frequency

Prevention

Replacement of breastfeeding with infant formula is not recommended; however, reduced frequency and nocturnal breastfeeding from the second year of life may reduce caries risk without eroding beneficial breastfeeding.



Ref: Peres KG, Chaffee BW, Feldens CA, Flores-Mir C, Moynihan P, Rugg-Gunn A. Breastfeeding and Oral Health: Evidence and Methodological Challenges. J Dent Res. 2018 Mar;97(3):251-258.

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Brushing your teeth



Up and down strokes



Back and forth strokes

Brushing your teeth

- Brushing must be done twice a day
- This is an important part of effective plaque control
- A pea size amount of tooth paste and a soft bristled brush must be used
- Two types of tooth brushes – baby/adult brush may be used according to the age
- Milk teeth also need to be brushed and maintained in good health since this prevents premature shedding
- The tooth brush has to be changed once in three months or when it begins to fray
- Massaging the gums with finger should also be advised after tooth brushing
- Brushing strokes – up and down

Brushing your teeth



Up and Down Strokes

Back and Forth Strokes

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Tounge cleaning & mouth rinsing



Tongue cleaning



Mouth rinsing

Tongue cleaning

- Clean the tongue after tooth brushing
- It can be done with the bristles of the brush by applying gentle back and forth strokes
- Rinse the mouth thoroughly after brushing

Mouth rinsing

- It is a part of routine oral hygiene
- Rinse your mouth thoroughly after each meal
- Mouthwashes can be used after consultation with dentist

Tongue cleaning & mouth rinsing



Tongue Cleaning

Mouth Rinsing

Oral Hygiene

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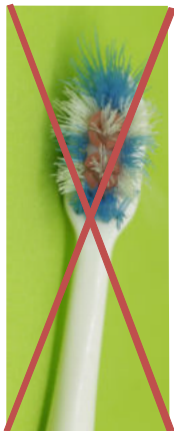
Choose your cleaning device



Tooth brush



Tooth paste



Frayed bristle



floss



Tongue cleaning

FOR PATIENTS

Choose your cleaning device

Tooth brush

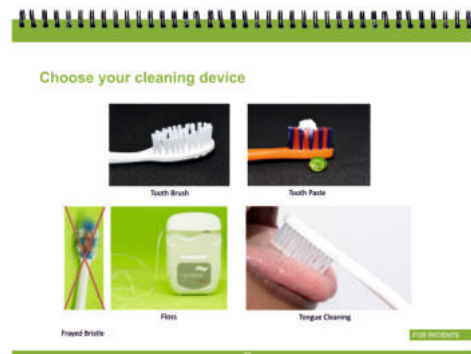
- Two types of tooth brushes baby or adult brush may be used according to the age
- It should be changed once in three months or when bristles begin to distort

Tooth paste

- Tooth brushing should be done with the toothpaste
- A pea size amount of tooth paste should be used

Tongue cleaner

It can be done with the bristles of the brush by applying gentle back and forth strokes



FOR HEALTH CARE PROVIDER

Five key messages for healthy teeth and gums

1. Take care of baby teeth. These lay the foundation for successors
2. Oral hygiene is key to healthy teeth and gums
3. Avoid caries causing food
4. Tobacco (smoking and/or chewing) and betel nut are risk factors to oral cancers
5. Teeth are for life time. Take care.

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