

# Oral Habits

## Theory and Practice of Pediatric Dentistry



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# Lecture Overview

- ⌘ Definition
- ⌘ Oral Habits
- ⌘ Effects on the Oral Cavity
- ⌘ Prevention
- ⌘ Treatment Options

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# Oral Habits

- ⌘ Definition - any repetitive behavior pattern which utilizes the oral cavity.
- ⌘ Two schools of thought
  - ☑ Old - undesirable, abnormal, & needs to be corrected immediately
  - ☑ New - reflection of growth and maturing oral apparatus
- ⌘ Learned patterns of muscular contraction
- ⌘ Abnormal habits can interfere with regular facial growth (Functional Anatomy Theory)

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## Oral Habits

⌘ A relationship exists between the physiologic development of the oral cavity and

- ☑ The nature
- ☑ The onset and
- ☑ The duration of the oral habit

⌘ Arise from:

- ☑ Reflex and instinct - seen in infancy
- ☑ Complex and Controlled behavior - seen later in life

⌘ Generally, the longer the habit is practiced

- ☑ The harder it will be to break
- ☑ The more the pathology seen in the oral cavity

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## Non-compulsive v/s Compulsive Oral Habits

⌘ Non-compulsive

- ☑ Naturally modified or eliminated through the maturation process.
- ☑ Not so entrenched in the child's behavior that they cannot be not changed in response to the child's changing physiologic/psychologic profile.
- ☑ Resolve on their own and child "grows" out of!
- ☑ No detrimental effects seen.

⌘ Compulsive

- ☑ Fixated in a child's behavior pattern.
- ☑ Malocclusion frequently results due to persistent and intense habit.
- ☑ Generally reflects a psychologic dependency on certain behavior.
- ☑ Compelling reason for the behavior to continue
  - ☑ Insecurities
  - ☑ Fears
  - ☑ Lack of ego-defense mechanism development

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## Sucking Mechanism

⌘ During infancy, it is the most well-developed sensation

- ☑ Helps with sustenance as well as deriving sensory pleasures.
- ☑ Gives a feeling of security, warmth, and euphoria.

⌘ An impatiently nursed baby loses the warmth and feeling of well being and is therefore deprived of the suckling pleasures.

⌘ This deprivation may motivate the infant to suck on the thumb or finger for additional gratification.

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## Malocclusion and Habits

⌘ The type of malocclusion produced by the habit is dependant on the following variables

- ☒ Position of the digit/pacifier etc.
- ☒ Associated orofacial muscle contraction force
- ☒ Mandibular position during sucking
- ☒ Facial skeletal genetic pattern
- ☒ Amount, frequency, & duration of force applied



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## Malocclusion and Age



- ⌘ During the first 3 yrs, the damage from the habit is mainly confined to the anterior segment, producing an anterior open bite.
- ⌘ Damage can be detrimental if the habit is continued beyond the age of 3.5 yrs.
- ⌘ After 4 years of age, the habit becomes strongly established. The damage seen is more significant.
- ⌘ After the eruption of the permanent incisors, the worst amount of damage seen.

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## Damage caused by Habits

⌘ The permanency of the damage to the Oral Structure is dependant on three factors

- ☒ Duration
- ☒ Frequency
- ☒ Intensity

$$-I = F \times D$$

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## Different Oral Habits



- ⌘ Finger Sucking
- ⌘ Pacifier
- ⌘ Nail Biting
- ⌘ Lip Sucking
- ⌘ Abnormal Swallowing or Tongue Thrusting
- ⌘ Abnormal Muscle habits
- ⌘ Mouth Breathing

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## Finger Sucking Habit

- ⌘ Most commonly seen non-nutritive habit in children.
- ⌘ Normal for newborns to engage in digit sucking.
- ⌘ Commonly develop in the first year of life.
- ⌘ Psychological factors contribute to the continuation of this habit past 6-7 months of age.
- ⌘ Most habits abandoned prior to the eruption of the permanent incisors.
- ⌘ No Tx needed if habit stopped by 6-7 years of age.
- ⌘ Earlier Tx instituted if maxillary arch constricted or parent/child is concerned.



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## Clinical Manifestations of Digit Sucking Habit



Herpetic Whitlow of the finger nail bed caused by thumb sucking

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- ⌘ Offending digit
  - Redness
  - Calluses
  - Wrinkled skin
  - Fingernail exceptionally clean
- ⌘ Malocclusion

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## Pacifier/Binkie Habit

- ⌘ Includes the physiologic pacifiers like the NUK.
- ⌘ Nearly identical to thumb sucking.
- ⌘ Similar clinical findings, only not that pronounced!
- ⌘ Tx - throw away the pacifier!
- ⌘ Caution - child may substitute missing pacifier with a digit!



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## Nail biting Habit



- ⌘ Usually seen in older children, but may be observed as early as 2-3 years.
- ⌘ Incidence increases through puberty.
- ⌘ Stress-related
  - Emotional distress
  - Anxiety
- ⌘ No malocclusion seen.
- ⌘ Damage to the nail and nail bed.

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## Lip Sucking Habit

- ⌘ Implication in the development of malocclusion is debated.
- ⌘ Includes
  - Wetting
  - Licking
  - Pulling
  - Sucking
- ⌘ Reddened and irritated lips, more severe in the winter months.



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## Abnormal Swallowing/ Tongue Thrust Habit



- ⌘ Protrusion of the tongue against or between the anterior dentition and excessive circum-oral activity during deglutition.
- ⌘ Innate behavior
- ⌘ Universal infant oral behavior for children under the age of 6 years.
- ⌘ Not a causative factor for anterior open bite.

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## Tongue Thrust Habit

- ⌘ Delayed transition between the infantile and adult swallowing pattern.
- ⌘ Transition usually begins to happen around the age of 2 years.
- ⌘ By the age of 6 years, 50% have completed the transition.
- ⌘ 10-15% estimated never to fully complete the transition.
- ⌘ Commonly associated with mouth breathing and anterior open bite.
- ⌘ Functional adaptation of malocclusion and not the etiology.
- ⌘ Can cause speech problems - lisping.
- ⌘ Most cases (80%) will self correct by 12 years of age.

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## Abnormal Muscle Habits

- ⌘ Abnormal muscle habits like Mentalis Habit - muscle arises from the mandible near the apices of the incisors and inserted into the soft tissue of the chin, puckering the skin and the lower lip is folded behind the maxillary incisors with the inner surface of the lip elevated upwards.
- ⌘ Placing the lower lip between the maxillary and mandibular incisors.
- ⌘ Frequently arises following development of anterior open bite.
- ⌘ Can be accompanied by skeletal Class I and II relationships.

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## Mouth Breathing

- ⌘ Mouth Breathing - can be caused by physiologic or anatomic conditions, can be transitional when exercise induced or due to a nasal obstruction.
- ⌘ True mouth breathing when the habit continues after the obstruction is removed.

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## Mouth Breathing Habit

### ⌘ Adenoid Facies

- ⌘ Long narrow face
- ⌘ Narrow nose and nasal airway
- ⌘ Flaccid lips with short upper lip
- ⌘ Uprturned nose exposing nares frontally



### ⌘ Skeletal Open Bite or "Long Face Syndrome"

- ⌘ Excessive eruption of posteriors
- ⌘ Constricted maxillary arch
- ⌘ Excessive overjet
- ⌘ Anterior openbite
- ⌘ Mandibular down/forward growth is poor



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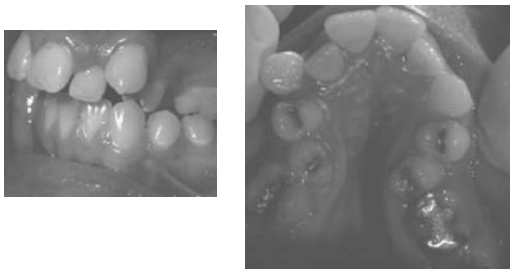
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## Constricted Arches of Mouth Breathers



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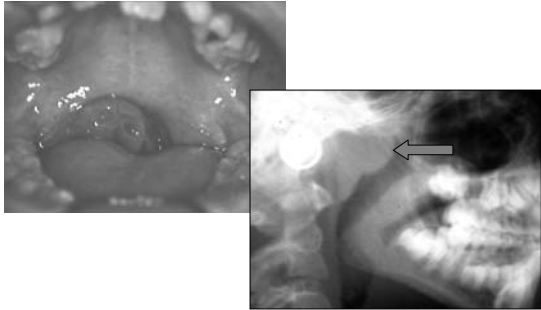
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## Enlarged Tonsils



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## Prevention

- ⌘ Usually starts with proper nursing
  - ⊗ On the part of the parent
    - ⊗ Time
    - ⊗ Patience
    - ⊗ Holding the baby while nursing,
    - ⊗ using a physiologically designed nursing nipple and pacifier to augment normal functional and deglutitional maturation.

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## Consideration for Oral Habit Therapy

- ⌘ Age of the patient
  - ⊗ 7 yrs
- ⌘ Maturity of the patient
  - ⊗ understands the problem, desires to correct it!
- ⌘ Parent cooperation
  - ⊗ Support and encouragement
- ⌘ Timely deliberation
  - ⊗ Alert to suggestive psychologic problems
- ⌘ Assessment of deformity
  - ⊗ Degree and the presence/absence of other complexities

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## Treatment Options

⌘ Accurate assessment in context of the child's physiologic and psychologic state of development for proper and effective management.

- Dentist-Patient Discussion
- Reminder Therapy
- Reward System
- Appliance Therapy

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## Dentist-Patient Discussion

- ⌘ Straight-forward discussion
- ⌘ Express concern and explain why the habit should be dropped.
- ⌘ Encourage them to call the office and speak to you if the habit urge returns.
- ⌘ Parents can help monitor only.

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## Reminder Therapy

- ⌘ Tx principles of Aversive conditioning
  - Association of unpleasant stimuli with a particular behavior.
- ⌘ Unpleasant and more difficult method
- ⌘ Reminder and not a punishment!
  - Adhesive bandage
  - Cotton glove
  - Fingernail polish
  - Bitters
  - Arm wraps

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## Reward System

- ⌘ Highly recommended as it is effective.
- ⌘ Consult parents to find out what are the child's likes and what prizes are suitable and special to the child.
- ⌘ Above the age of 5 yrs, use self esteem rewards.
- ⌘ Formulate a contract between the child and parent for a short period of time (1-2 weeks).
- ⌘ Greater the involvement of the parent and child, the more successful the outcome.

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## Appliance Therapy

- ⌘ Intra-oral appliance
- ⌘ Child must welcome continued assistance
- ⌘ Permanent reminder

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## Habit Correcting Appliances

- ⌘ Finger Sucking Appliances
  - ☐ Palatal Crib



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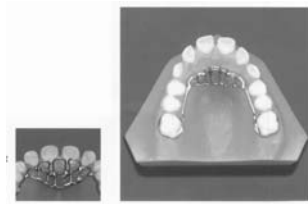
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## Habit Correcting Appliances

⌘ Tongue/Thumb Retainer

☑ Fixed Tongue Crib



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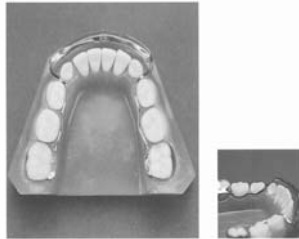
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## Habit Correcting Appliances

⌘ Lip Habit Correction Appliance

☑ Lip Bumper



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## Summary

- ⌘ Abnormal habits typically interfere with regular facial development.
- ⌘ The longer a habit is practiced, the harder it is to break.
- ⌘ Duration, frequency and intensity play important roles in the permanency of the damage seen.
- ⌘ When considering treatment, make sure the child wants to break the habit.
- ⌘ Placing fixed appliances should be the last resort for habit cessation.

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