

# ORAL HABITS

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## Introduction

- Oral habits are habits that frequently children acquire that may either temporarily or permanently be harmful to dental occlusion for and to the supporting structures.
- When habit cause defect in orofacial structure it is termed as pernicious oral habit.

## Definition

**Buttersworth(1961):**defined a habit as a frequent or constant practice or acquired tendency, which has been fixed by frequent repetition.

# CLASSIFICATION

## **(1) By William James:-**

- Useful habits (nasal breathing)
- Harmful habits (eg:- Thumb sucking, Tongue thrusting)
- Useful habits:- Considered essential for normal function such as proper positioning of tongue, respiration, normal deglutition.
- Harmful habits:- Have deleterious effect on the teeth and their supporting structures.

## **(2) By Morris and Bohana:-**

- Pressure. (lip sucking, thumb sucking, tongue thrusting)
- Non pressure (mouth breathing)
- Biting habit (nail biting, pencil biting, lip biting)
- Pressure habit:- Apply force on teeth & supporting structure.
- Non-pressure habit:- Does not apply force on teeth & supporting structure.

### **(3) By Finn:-**

- Compulsive

- Non-compulsive

➤Compulsive :- These are deep rooted habits that have acquired a fixation in child. The child tends to suffer increased anxiety when attempt made to correct.

➤Non-compulsive:- These are habits that easily learned and dropped as the child matures

### **(4) By Klein:-**

Empty/unintentional habits

Meaningful/intentional habits

Empty habit:- They are habits that are not associated with deep rooted psychological pattern.

Meaningful habits:-They are habits that have psychological bearings.

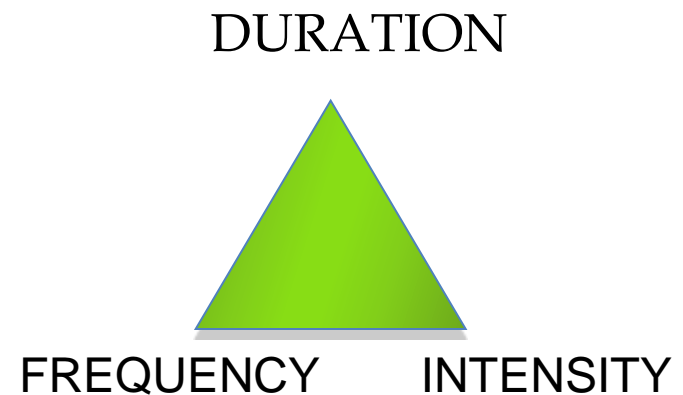
# TRIDENT OF FACTORS

The severity of malocclusion depends on the following factors-

**DURATION-** Amount of time spent on habit

**FREQUENCY-** Number of times/day habit is practiced

**INTENSITY-** Amount of force applied to the teeth.



## Various habits are:-

- Thumb sucking.
- Tongue thrusting.
- Mouth breathing
  - Bruxism
  - Nail biting
  - Lip biting.

# THUMB SUCKING



## **Introduction:-**

- It is observed that most children below 3 year suck their thumbs & finger.
- Thumb sucking in infants is common and is meant to meet both psychological and nutritional needs.
- Most children discontinue the habits 3-4 year of age.
- If habit continues beyond this period there is definite chance that may lead to dentofacial changes.

## **Definition:-**

- According to Gellin “It is placement of thumb or one or more finger in varying depth into the mouth”.

## Theories:-

(1) Psychoanalytical/psychosexual theory:- (Sigmund Freud in 1928.)

- Habit evolves from an inherent psychosexual drive where child derives pleasure during thumb sucking.

(2) Oral drive theory:- (Sears and Wise 1982.)

- According to this theory prolongation of nursing strengthens the oral drive & child begins thumb sucking.

(3) Benjamin's theory:- Rooting reflex:-

- In this movement of infant's head & tongue towards an object touching its cheek.
- This primitive reflex is maximal during first 3 months of life.

(4) Learning theory:- (Davidson 1967)

- The infant associates sucking with such pleasurable feelings as hunger & recalls these events by sucking the suitable object available.

## Causative factors:-

- (1) **Socioeconomic status**:- In high socioeconomic status - better fed baby, where as in low socio-economic group is unable to provide the infant with sufficient breast milk- more tendency for habit.
- (2) **Working mother**:- Children brought up in the hand of a caretaker may have feelings of insecurity and use their thumb to obtain secure feeling.
- (3) **No. of sibling**:- As number increases the attention required by the parents to child gets divided.
- (4) **Order of birth of child**:- Later the sibling ranks in family, greater is change of having oral habits.

# Diagnosis of thumb sucking

## (1) History:-

- Determine the psychological component involved.
- Question regarding the frequency, intensity and duration of habit.
- Enquire the feeding patterns, parental care of the child.
- The presence of other habits should be evaluated.

## (2) Extraoral Examination :-

### (i) The digits:-

- Will appear reddened, exceptionally clean, chapped & short fingernail (dishpan thumb)
- Fibrous roughened callus may be present on superior aspect of finger.

### (ii) Lips:-

- Upper lip may be short and hypotonic.
- Lower lip is hyperactive .

### (iii) Facial form analysis:-

- Check for mandibular retrusion.
- Maxillary protusion.
- High mandible plane angle .

### (3) Intra oral Examination:-

## Clinical Features

#### ➤ Intra oral:-

- Labial flaring of maxillary anterior teeth.
- Lingual collapse of mandibular anterior teeth.
- Increased overjet.
- Hypotonic upper lip and hyperactive lower lip.
- Tongue placed inferiorly leading to posterior cross bite due to maxillary arch contraction.
- High palatal vault.

#### Extra oral:-

- Fungal infection on thumb
- Thumb nail exhibit dish pan appearance.



malocclusion / overbite damage from  
thumb sucking

# MANAGEMENT

## (1) PSYCHOLOGICAL THERAPY:-

- If psychological dependence is suspected - child referred for counseling.
- Thumb sucking children between the age of 4 to 8 year need only reassurance, positive reinforcements and friendly reminders.
- Various aid are employed to bring the habit under the notice of child such as study model, mirror's etc.

## Dunlop hypothesis:-

Patient is made to sit in front of mirror and asked to suck his thumb this will make him realize how awkward he looks and want to stop sucking his thumb.

- Children & parents are informed about existing dentofacial deformities and long term risk of habit.

## **(2) REMINDER THERAPY:-**

### **(A) Extra oral approach:-**

- Employed bitter flavored preparations or distasteful agent that applied to finger or thumb eg. cayenne pepper, quinine, asafetida.
- A commercially available product Fimite can also be used.
- It should be applied on skin and nails allowed to dry for 10 min. A new coat should be applied in mornings and evening till habit is broken.

### **(B) Ace bandage approach:-**

Nightly use of an elastic bandage wrapped across the elbow pressure exerted by the bandage remove the digit from the mouth as child falls asleep.

### **(C) Use of long sleeve night gown.**

### (3)MECHANO THERAPY:-

- (A) *Fixed intra oral anti thumb sucking appliances-* An intraoral appliance attached to the upper teeth by means bands fitted to the primary second molar or first permanent molar eg. palatal crib, rakes, palatal and lingual spur.
- (B) *Blue grass appliances -* Consist of modified six sided roller machined from Teflon to permit purchase of the tongue.
- (C) *Quad helix -* prevents the thumb from being inserted and also corrects the malocclusion by expanding the arch.



# TONGUE THRUSTING

## **Definition:-**

States tongue thrust as forward movement of tongue tip between the teeth to meet the lower lip during deglutition and in sounds speech so that tongue becomes interdental. (Tulley 1969)

## **Classification:-**

### **(1) Physiologic:-**

This comprises the normal tongue thrust swallow of infancy.

### **(2) Habitual:-**

The tongue thrust swallow is present as a habit even after the correction of the malocclusion.

### **(3) Functional:-**

When the tongue thrust mechanism is an adaptive behaviour developed to achieve an oral seal, it can be grouped as functional.

### **(4) Anatomic:-**

Persons having enlarged tongue can have an anterior tongue posture.

# Etiology

## **(1) Retained infantile swallow:- :-**

With eruption of incisor at six months of age, tongue does not drop back as it should & continues to thrust forward.

## **(2) Upper respiratory tract infection:-**

Such as mouth breathing, allergies etc, promote forward movement of tongue due to pain.

It may also present due to physiological need to maintain adequate airway.

## **(3) Neurological disturbances:-**

Hyposensitive palate, disruption of sensory control & coordination of swallowing .

## **(4) Feeding practice:-**

Bottle feeding is more contributory than breast feeding to tongue thrust development.

## **(5) Induced due to other oral habits :-**

Thumb sucking & finger sucking may prevalent in many children

Habits created malocclusion (anterior open bite)

Tongue is protrude between anterior teeth during swallowing, when habit corrected than change in protrusive tongue activity take place.

## **(6) Hereditary**

**(7) Tongue size:- macroglossia can have an effect on the dentition**



# Clinical features

## A. Extra Oral

:-

- (1) *Lip Posture* :- Lip separation is more both at rest & in function
- (2) *Mandibular movement* :- Path of mandible movement is upward & backward with tongue movement forward.
- (3) *Speech* : Lipsing problem in articulation of s/n/t/d/ l/th/z/v/ sounds.
- (4) *Facial form* :- increase anterior facial height

## (B) Intraoral

### (1) *Tongue posture*:-

Tongue tip at rest is lower because of anterior open bite present

### (2) *Malocclusion*:- **In Maxilla** :- Proclination of maxillary anterior .

- An increase over jet
- Maxillary constriction
- Generalized spacing between teeth.

**In Mandible** :- Retroclination of mandibular teeth

# DIAGNOSIS :-

## □ *History* :-

- Determine swallow pattern of siblings & parents to check for hereditary etiologic factor.
- Information regarding upper respiratory infection, sucking habits
- Finally past & present information regarding the over all abilities , interest ,motivation of patient should be noted .

## □ *Examination* :-

### (1) Patient seated upright :-

A little water is placed in patient mouth & patient is asked to swallow it.

During normal swallowing pattern :-

- Lip touch each other tightly
- Mandible rise as teeth are brought together
- Facial muscle do not show any marked contraction.

## **During abnormal swallowing:-**

- Teeth are apart.
- Lip do not touch each other.
- Facial muscles show marked contraction.

(2)The lower lip is lightly held with thumb and finger and patient asked to swallow the water .

- During normal swallowing process patient is able to swallow normally.
- In abnormal the swallow will be inhibited as strong mentalis and lip contraction are needed for mandibular stabilization & water will spill out mouth.

# Management:-

It is aimed at teaching the child correct positioning of tongue

- 1) Patient is instructed to put the tip of tongue at correct positions and swallow with Lip pursed and teeth in occlusion.
- 2) When patient learn normal tongue position this has to be reinforced and made into on unconscious act.
- 3) Appliance therapy is initiated for child above 9 year - can be either fixed with band palatal rake or removable with adam's clasp.  
*(a) Nance Palatal Arch Appliance* - in this acrylic button can be used as to guide the tongue in right position.



# MOUTH BREATHING HABITS

- **Definition:-**

Mouth breathing as habitual respiration through the mouth instead of the nose. Sassouni (1971)

- **Etiology:-**

It is estimated that 85% mouth breather suffer from some degree of nasal obstruction

1. Developmental Anomalies like abnormal development of nasal cavities .
2. Partial obstruction in deviated nasal septum and Localized benign tumor.
3. Infection inflammation of nasal mucosa as:-  
Chronic allergic, chronic atrophic Rhinitis, Enlarged adenoid tonsils

- (4) Traumatic injuries of nasal cavity
- (5) Genetic Pattern

## **Classification:-**

❑ Given by Finn 1987

(1) Anatomic

Mouth breather is one whose short upper lip does not permit complete closure without undue effort.

(2) Habitual

Persistence of habit even after the elimination of obstructive cause.

(3) Obstructive

Increased resistance to complete obstruction of normal airflow to nasal passage.

## Clinical Features:-



- ❑ Facial appearance of child with mouth breathing habit is termed as Adenoid facies.
- ❑ Long narrow face, narrow nose and nasal passage.
- ❑ Short upper lip.
- ❑ Nose tipped superiorly
- ❑ Expressionless face.
- ❑ Dental effect (intra oral)

Protusion of maxillary incisors Palatal vault is high.

Increase incidence of caries. Chronic marginal gingivitis.

## Diagnosis :-

### **(1) History:-**

- ❑ The parents can be questioned whether the child adopts frequent lip apart posture.
- ❑ Frequently occurrences of tonsillitis, allergic rhinitis.

### **(2) Examination:-**

(i) Observe the patient unknowingly while at rest

In a nasal breather – lip touch lightly whereas In mouth breather –  
Lip are kept apart.

(ii) Patient asked to take deep breath

Nasal breather keep the lip tightly closed

Mouth breather take deep breath keeping mouth open.

(iii) Clinical test:-

(a) *Mirror test*:- Double side mirror

(b) *Water test*

(c) *Cotton test*

# Management:-

- 1) *Symptomatic treatment*- The gingiva of the mouth breathers should be restored to normal health by coating the gingiva with petroleum jelly.
- 2) *Elimination of the cause*- If nasal or pharyngeal obstruction has been diagnosed then removal of the cause is done by surgery .
- 3) *Interception of the habit*- a) Physical Exercise b) Lip Exercise
- 4) *Oral Screen* –
  - The most effective way to reestablish nasal breathing is to prevent air entering the oral cavity to do this lip or oral cavity must be closed.
  - During initial phase, windows are placed on the oral screen so as not to completely block the airway passage.



# BRUXISM

## Definition:

Bruxism is habitual grinding of teeth when the individual is not chewing or swallowing. (Ramford 1966)

## Classification:-

(1) Day time Bruxism.

It can be conscious & subconscious and may along with parafunction habit such as chewing pencil, nails, cheek & lips.

(2) Night time Bruxism/Nocturnal Bruxism:-

It is subconscious grinding of teeth characterized by rhythmic pattern of masseter EMG activity.

# Etiology:-

- (1) **CNS:-** This CNS phenomena was found in children with cerebral palsy & mental retardation.
- (2) **Psychological:-** A tendency of grind teeth associated with feeling of hunger and aggression, hate, anxiety etc.
- (3) **Occlusal discrepancy:-** Improper interdigitation of teeth lead to bruxism.
- (4) **Systemic factor:-** Mg<sup>++</sup> deficiency may lead to bruxism.
- (5) **Genetic.**
- (6) **Occupation:-** Overenthusiastic student or competitive sports lead to clenching .

## Clinical features:-

- (1) Occlusal trauma:- occlusal surface is worn considerably with exposing dentin extreme sensitivity, Toothache, mobility.
- (2) Pain in TMJ
- (3) Trauma to periodontium.
- (4) Masticatory muscle soreness.
- (5) Headache.



## Management:-

### (1) *Adjunctive theory:-*

- Psychotherapy- Aim to lower the emotional disturbances.
- Elimination of oral pain & discomfort by giving ethyl chloride within the temporo-mandibular joint area.

## (2) Occlusal therapy :-

### (a) Occlusal adjustment

- *Splints*-Volcanite splints have been recommended to cover the occlusal surfaces of all teeth. A reduction in increased muscle tone is observed with its use.
- Night guards.
- Restorative treatment.

(b) Drug -vapo coolant such as ethyl chloride for pain in TMJ area, local anesthesia injection directly in TMJ and muscle tranquilizer and sedative are used.



# Lip Habits

## Definition:-

Habit involve manipulation of lips and perioral structure are termed as lip habits.

## Etiology :-

Malocclusion  
Habit  
Emotional Stress



## Clinical features:-

- Protrusion of upper anteriors & retrusion of lower anteriors.
- Lip trap
- Muscular imbalance
- Lower incisor collapse with lingual crowding
- Mentolabial sulcus become accentuated.

## Treatment:-

- Lip Protector
- Lip bumper –it is used as a adjustive therapy in both comprehensive and interceptive treatment
- Visual education



# Nail biting habits

- It is most common habit in children
- It is sign of internal tension



## Etiology :-

- Persistence nail biting may be indicative of emotional problem.
- Psychosomatic
- Successor of thumb sucking.

## Clinical features:-

- Crowding
- Rotation.
- Alteration of incisal edge of incisor
- Inflammation of nail bed.



## Management:-

- Patient is made aware of problem.
- Treat the basic emotional factor causing the act.
- Encouraging outdoor activity which may help in easing tension.
- Application of nail polish, light cotton mittens as reminder.

**THANK YOU**

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