

Dental Complications of Sucking Thumbs



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Introduction

Putting a finger in the mouth and sucking it is the normal habit of all children that will not leave for many years. Sucking a thumb is a natural reaction in children that may be beneficial or harmful. Sucking a thumb or other fingers and sucking a pacifier or other objects gives a sense of safety or joy to the infants; and helps them to better understand the world around themselves. Behavioral and mood changes, reactions to family differences and lack of affection are the most important factors in sucking fingers in children. Significant complications such as speech impairment, irregularities in teeth, malocclusion, intra-oral ulcers, and wounds and scars on the thumbs can occur after long sucking of the fingers. With sucking, young children feel more relaxed and fall asleep. Most children leave this harmless habit before the age of two without any worries or interventions but the sucking habit in some children is so severe or repeated that it becomes a dental and social problem.

Some children are only convinced by the dentist after a friendly conversation to put an end to this habit. Recommendations from the dentist may be more effective than parenting advice. If the child is not convinced to leave sucking habits with counsel, use of nightly guards or special protective gear or other habit appliances is recommended, which usually causes the habit to be discarded within a few months.

The reason for sucking fingers in children

Infants have natural sucking reactions that cause the thumb or fingers to enter the mouth. This reaction sometimes begins even before birth. Because the habit of sucking gives the child a sense of safety and comfort, it eventually turns into a habit that a child can relax or fall asleep [1].

The length of the habit of sucking fingers

Many children leave their sucking fingers in their infancy between the ages of two and four. Those children who still have this habit, by entering school and afraid of being mocked by their peers, leave the sucking fingers. Of course, it should be noted that even those children who have abandoned this habit, they may have a tendency to return to this habit if they are affected by anxiety and worry [2].

Time to interrupt the habit of sucking fingers

Sucking thumb is not at all alarming until the permanent teeth eruption. But after this period, it affects the roof of the mouth. It also could change the order and arrangement of teeth. Consequently, it causes crowding of the teeth due to space deficiency, and deformation in the palatal area. If the child continues to suck his or her finger vigorously, the teeth will be damaged more than once the child simply places his finger motionless in the mouth.

The most important dental and jaw effects

Sucking pacifiers and fingers can seriously damage teeth in long term. Consider the most important issues below:

- a. **Jaw disorders:** There are various sizes and shapes of the pacifier, most of which are not suitable for keeping in the mouth. Therefore, sucking a thumb or pacifier will eventually cause jaw disorders.
- b. **Dental caries:** Many parents try to calm their infants by soaking up the pacifier with honey or other sweet snacks. Oral bacteria feed on sugars and produce harmful acids. These acids attack the tooth enamel and, as result, the teeth of the child develop decay.
- c. **Palatal narrowing:** Oral structures are very flexible in childhood. The long term sucking will lead to narrowing of the palate. Because of the flexible palatal area, it could take the shape of the object which is sucked. The narrowing and deepening of the palatal area, in turn, causes other complications in the growing teeth; For example, teeth disorientation or teeth crowding should be mentioned [3,4].
- d. **Malocclusions:** In case of sucking thumbs and pacifiers in the long run, growing teeth tend to be tilted, and their appearance does not look so pleasant. Furthermore, it increases the likelihood of the need for orthodontic works. The most common dental signs associated with sucking non-edible objects include:
 - i. **Anterior open bite:** The incisors teeth of upper and lower jaws are not well placed when closing the mouth.

ii. Movement of the Canine teeth: These teeth do not erupt from the correct place. They might erupt buccally or lingually. In addition, the pressure of the thumb drives the lower canine teeth back to the mouth.

iii. Maxilla's is narrowing: As a result of the internal pressure on the palatal area by thumbs sucking, as well as, the pressure of the tongue on that area, the Maxilla becomes narrower.

iv. Intruded anterior teeth: Sucking a finger can move the anterior teeth to the forward, which is a common problem. Sucking a finger sometimes affects the formation of the jaw and makes it and teeth stay ahead of the rest of the face [5-6].

v. Cross Bite: The upper jaw is very narrow to the lower jaw, and therefore the teeth of both jaws are not well aligned. Cross bite is sometimes the result of a change in the muscles cheek when the child is sucking his thumb.

e. Offer another effective habit.

f. Whenever a child takes his finger to his mouth, it is the parent's duty to distract him and reinforce him in another activity so that he or she has to use both hands.

g. His playmates should not be underestimated. Children over the age of 6 prefer to leave this harmful habit so that they are not scoffed by their fellow players and their friends.

h. Consult with the pediatric dentist [9-12].

Application of dental appliances to stop thumbs sucking habits

a. Guard Thumbs: This is recommended for children who want to leave the habit of sucking a thumb, but leaving this habit is difficult for them. This device is suitable for children from 3 to 12 years of age; it is easy to apply, and the child can use it for 24 hours. The thumb guard without limitation to play, or use hands gradually makes the child abandon this habit.

b. Fixed palatal crib: To leave the habit of sucking thumbs, special device such as a fixed palatal crib is used. This small intra oral metal device is connected to the upper anterior teeth. On this device, there are metal rings or rods placed behind the upper teeth that take the pleasure of sucking a finger from child. The palatal crib remains in the mouth for several months and the child has to tolerate it during this period [13-15].

Wounding the oral cavity and thumbs

Inactive sucking is less harmful than sucking in and out with sound. Sever Sucking thumbs probably result in ulcers in palatal area, and possibly oral wounds. In addition, the wounds and scars on thumbs would be expected [7-8].

Speech disorders

One of the likely complications of thumbs sucking in children after permanent teeth eruption; it might be a disorder in the child's speech. The irregularity of the teeth creates problems for producing different sounds. In addition, long-term sucking of fingers causes interference with tongue movement and interference with Primary Swallowing Patterns in Children. As a result, we will witness a decline in complete swallowing. Pronunciation of vocals and voices that are affected by thumbs sucking as follows: n, l, d, e, and z, s. Lipping is also one of the implications of continuing the sucking habit to school ages.

Suggested ways and incentives to leave sucking fingers

In some cases, the child tries to suck his finger in order to attract the attention of his parents. In this case, it is enough to not pay attention to thumb sucking so that he might gradually leave this habit. If ignoring is not effective, the following methods can be tested:

- a. Talk to the child about this habit.
- b. Encourage the child and give him a reward for leaving this habit.
- c. Stimuli must be known. If the child sucks his finger in response to stress, the main problem and its origin should be found.
- d. Try to use another solution, such as hugging or applying Words of peacefulness to resolve it.

Conclusion

Sucking is quite instinctive in infants. This behavior is natural and normal for young children. However, if after 6 years of age, the baby is still sucking, he needs treatment. Continuing this behavior causes complications in the teeth, gums, and jaws. In addition, it can cause verbal failure, chewing disorders, speech disorders, and ulceration of the oral area and fingers. The continuation of this habit is due to a psychiatric problem in a child who is unable to control his anxiety. It should be noted that the higher the age, the greater the likelihood of leaving this habit. The origin of this child's behavior should be discovered. In the end, the use of special orthodontic appliances by dentists is suggested to overcome this problem.

References

1. O Connor Anahad (2005) The Claim: Thumb Sucking Can Lead to Buck Teeth. The New York Times, USA.
2. Bishara S, Larsson E (2007) Finger Habits: Their Effects and Their Treatments. Parts 1 and 2, The Dental Assistant 76 (1 and 2):14-16, 18, and 16-18, 20, 22, 24.
3. Thumb Sucking, Blenner S, Parker S, Zuckerman B, Augustyn M (2005) Behavioral and Developmental Pediatrics 2nd (edn). Philadelphia, Pa: Lippincott, Williams & Wilkins: 348-350.
4. Benjamin Lorna S (1967) The Beginning of Thumb sucking. Child Development 38(4): 1065-1078.
5. Ferrante A, Ferrante A (2015) Finger or thumb sucking, new interpretations and therapeutic implications. In: Pediatrics 67(4): 285-297.

6. Shetty RM, Shetty M, Shetty NS, Deoghare A (2015) Three-Alarm System: Revisited to treat Thumb-sucking Habit. *International Journal of Clinical Pediatric Dentistry* 8(1): 82-86.
7. Fukuta O, Braham RL, Yokoi K, Kurosu K (1996) Damage to the primary dentition resulting from thumb and finger (digit) sucking" In: *Journal of Dentistry for Children* 63(6): 403-407.
8. (2007) *The Journal of the American dental Association (JADA)*, Elsevier, Vol 138.
9. (2015) Thumb sucking.
10. Nanda RS, Khan I, Anand R (1972) Effects of oral habits on the occlusion of preschool children. *J Dent Child* 39: 449-452.
11. Adair SM (2003) Pacifier use in children: a review of recent literature. *Pediatric Dent* 25(5): 449-458.
12. Warren JJ, Bishara SE (2002) Duration of nutritive and nonnutritive sucking behaviors and their effects on the dental arches in the primary dentition. *Am J Orthod Dentofacial Orthop* 121(4): 347-356.
13. Gupta B Indushekar, Bhavna Gupta, Indushekar KR (2012) Childhood thumb sucking habit: the burden of a preventable problem, *Journal of Dentistry, Medicine and Medical Sciences* 2(1): 1-4.
14. (2014) *Fast Facts. American Academy of Pediatric Dentistry Fast Facts, USA.*
15. Elliot N Gale, William A Ayer (1969) Thumb-sucking revisited, *American Journal of Orthodontics* 55(2): 167-170.



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