SCL Health

Thumb & Finger Sucking: Reasons For Concern?

In addition to the known hygiene, speech, psychological and social implications, certain dental aspects may also need to be considered. Whereas it is true that hereditary does play an important role in the development of the structures of the face, EXCESSIVE thumb/finger sucking habits may have a profound impact on this development. They can create a disturbance of the relationship of the jaws and teeth:

- The upper front teeth may be pulled outward and pushed upward by the thumb/finger. If this is severe, the upper jaw can become displaced forward which may contribute to a poor biting and chewing surface and promotes a "bucked tooth" appearance.
- The pressure of the thumb/finger resting on the lower front teeth may retard the growth of the lower jaw and crowd or tip the lower front teeth.
- The bony support of the upper teeth may be displaced upward, leaving an "open bite" (when the back teeth are brought together, a space remains between the upper and lower teeth).
- The tongue may come forward during the production of certain speech sounds to compensate for this thumb/finger-induced open bite. The tongue is encouraged to fill the gap, and lisping on certain speech sounds may result.

During the sucking act, the tongue is carried in a low and forward posture which may encourage the tongue to push against the teeth during swallowing. A "tongue thrust" swallow is thereby encouraged which may further contribute to the malalignment of teeth (malocclusion).

The constant motion of the cheek muscles in the sucking action may begin to narrow the upper dental arch by collapsing it around the thumb/finger. This may contribute to a "crossbite" where the upper and lower jaws no longer fit in harmony.

With the thumb/finger in the mouth the lips remain in an open posture. Over time this can distort the appearance of the lips. The child may begin to rest with the lips open most of the time (even when the thumb/finger is not in the mouth). An open-lips resting posture is encouraged, and the child begins to have a "mouth breather" look which detracts from his/her appearance. People unjustly associate dullness of intelligence with open-lips resting postures. In addition, the open lips posture and the low tongue posture may further contribute to the narrowness of the upper dental arch.

Take Away Points

- All toddlers should be off bottles (preferably by 15 months) and sippy cups by 2 years old. The sippy cup that comes with a straw is OK.
- If still thumb/finger sucking or using a pacifier at 2 years old, try the following:
  - If it's associated with a blanket, toy, or stuffed animal, slowly decrease the availability of those objects.
  - Slowly clip the end off of the pacifier.
  - Allow your child to have other things available to chew on: Cheerios, safe rubber toys, etc.
  - Offer gum if he or she is at least 4 years old.
- If still thumb/finger sucking or using a pacifier at 4-5 years old, it is time to discuss other possible options.

Breaking The Habit

It has long been recognized that non-nutritive sucking is a normal, pervasive method of self- soothing in infancy. 31% of 1 year olds engage in finger-sucking. For most, no treatment is needed as most will stop the behavior by the time they reach the age of 3 or 4 years. Only 12% of children still suck their fingers at age of 4 years.

- **Recommended interventions.** Keep in mind that the following suggestions are evidence-based, but only to a limited degree, because of the small sample sizes of available studies.
- **Positive reinforcement.** Verbally praising children when they are engaging in appropriate behaviors and not sucking their fingers is the mainstay of positive reinforcement. Providing the child with encouraging social support has been shown to be an important part of breaking the finger-sucking habit in children aged 5 to 15 years.

- Creating a reward system with the child's help is another way to provide positive reinforcement. For example, give the child a "star" on a calendar for each day he or she does not suck his or her finger; after an agreed-on number of stars in a month has been reached, a desired reward is earned. Such reward systems should be continued for several months to permanently end the habit.
- **Negative reinforcement.** Verbal chastisement and physical punishment are certainly not advocated. However, some pediatricians do recommend the use of various deterrents as a type of negative reinforcement. Deterrents include topical bitter substances and bandages that are applied to the finger the child sucks, as well as glove-like devices, which have been reported to be effective in decreasing finger-sucking in cooperative children aged 7 to 10 years, especially during alone times and at bedtime.
- **Distraction.** Finger-sucking typically occurs when children are bored or trying to fall asleep. When a child watches television, the finger has a tendency to make its way to the mouth. Thus, an obvious strategy for breaking the habit is to limit television time and other forms of idleness and instead promote activities that require the use of both hands.
- Studies have reported that children who received awareness training and who were able to respond to the urge to suck their thumb with an alternative behavior, such as fist or knee clenching, could successfully combat the thumb-sucking habit. Awareness training involved helping the children identify warning signs that indicated that they were about to start sucking their thumb. They learned to respond to these cues by instead clenching their fist or knee.
- **Scheduled thumb-sucking.** This paradoxical approach forces the child to engage in thumb-sucking for a scheduled period each day, making it an obligatory rather than a voluntary activity. For a few children it may make the habit less appealing.
- **Dental appliance therapy.** This should be considered second-line therapy. Before choosing this intervention, it is helpful for the child to have a strong desire to stop the habit and to comprehend the role that the device will play in the process. Ideally, the child should have reached the age at which the first upper molars have fully erupted. There are varying degrees of efficacy for dental appliances, and the adverse consequences of emotional distress, pain, dental changes, palatal irritiation and infection, must be considered. It is important to consult a dental expert before using one of these appliances.
- **Orofacial Myology.** Another option is seeing a therapist who works closely with the family applying behavioral techniques. I've seen great success, but understand it can be costly, and is usually not covered by insurance. If interested in information, give Sandra Coulson a call, 303-759-2760.

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