

The digit sucking habit – part two

In part two of this feature, **DR PAROO MISTRY** looks at the occlusal effect of the digit sucking habit and provides advice for parents who want their child to stop the habit...

THE prolonged digit sucking habit has been shown to affect 12 per cent of children over the age of seven years. It is therefore important to understand the effect this habit has on the dentition.

Mitchell (2000) described the effect of a digit as having an "orthodontic-like effect on the teeth." She explained that the amount the digit affected the teeth depended on the duration and intensity of the sucking habit. Proffit (1986) stated that pressure against the teeth, which exists for at least six hours per day, will result in tooth movement. Therefore it is reasonable to expect that children who practice the habit for at least six hours per day will cause their teeth to move.

Effects on the occlusion

Studies have described the following effects of digit sucking on the occlusion as:

- Increased overjet with forward displacement of the maxilla
- Proclination of the upper labial segment
- Proclination or retroclination of the lower labial segment
- Reduced overbite and anterior openbite
- Class II buccal segment relationship and posterior crossbites have been suggested, significant differences are yet to be demonstrated.

A recent study comparing the occlusal features of digit suckers and non-suckers in Kettering, Northamptonshire, found that the vertical effect of the digit sucking habit was the most significant. However, these classic occlusal traits associated with digit sucking were not seen in all the digit suckers, suggesting that the duration, frequency and forces involved in the habit contribute to the variation in the occlusal changes seen.

Stopping the habit

Studies have shown that early cessation of the digit sucking habit can lead to some spontaneous correction of the aforementioned occlusal problems in a



growing child. However, it has been revealed that the greatest improvement is seen in pre-school children, with limited spontaneous improvement after the age of 12 years. Early cessation of the habit to avoid these problems or allow maximum spontaneous correction is therefore advocated.

Advice to parents

Parents frequently attend the dental practice worried and concerned about their child's habit. It is important to reassure the parents that they should not worry about a sucking habit in a very small child under the age of two years. Where an older child has a persistent habit, it is important to explain the benefits of stopping the habit.

Punishing a child for sucking their thumb is not productive, especially since a child often sucks for reassurance and comfort when feeling insecure (based on the psychoanalytical theory mentioned in part one). Punishment can make a child feel sad and insecure, thus making them more likely to want to suck their thumb. Positive reinforcement, such as a reward for no thumb sucking, is very important.

However, parents often find it difficult trying to encourage their child to want to stop sucking their thumb. Reward charts are a useful method to overcome this as it gives a child something to work towards. For everyday the child goes without sucking their thumb, they receive a gold star on a

wall chart or calendar. When they receive 60 consecutive gold stars they can receive a prearranged prize of their choice. This motivation is very effective and it gets the parent and child on the same side.

It is also important to try to explain to the child the importance of stopping the habit. If they want to try to stop the habit as well then physical reminders act as a positive way to encourage the child to stop.

Many children suck their thumb in their sleep, so gloves or socks can be sewn onto their long sleeved night dress or pyjama top so they do not have access to their hand. Foul tasting nail polish or mustard can also be placed on the nails to act as another reminder.

Many children respond to the use of plasters on the responsible finger or thumb. This makes the feeling of sucking less pleasurable and can be combined with a smiley face drawn on the plaster in pen, which, if smudged, can judge if the thumb has been in the mouth overnight.

It is worthwhile asking if the child has a security blanket or teddy bear which they hold at the time of sucking. By breaking the association between the two, so by sending teddy on holiday until the habit stops or by removing the security blanket, the child gains less pleasure from the habit and is therefore more likely to stop.

Finally, orthodontic appliances such as fixed or removable habit breakers have a role in aiding the cessation of the digit sucking habit. These are passive appliances usually with a projection on the palate which impedes the thumb or finger in the mouth. These are usually used as a last resort once all other avenues have been explored.

It is essential that the habit has stopped prior to the start of any orthodontic treatment to allow effective orthodontic management to be carried out.

About the Author

Paroo Mistry is a Specialist Orthodontist currently carrying out her Fixed Term Training Appointment in Orthodontics at The Royal London and Great Ormond Street Hospitals. Paroo carried out her specialist training in Peterborough, Kettering and The Eastman Dental Hospital during which she carried out her Masters research on the occlusal effects of the digit sucking habit.



References

- Baalack I, Frisk A (1971). Finger-sucking in children. A study of incidence and occlusal conditions. *Acta Odont Scand.* 29: 499-512
- Bowden B (1966). The effects of digital and dummy sucking on arch widths, overbite, and overjet: a longitudinal study. *Australian Dental Journal.* 11: 184-190
- Bowden B (1966). A longitudinal study of the effects of digit- and dummy- sucking. *American Journal of Orthodontics.* 52: 887-901
- Brenchley M (1991). Is digit sucking of significance? *British Dental Journal.* 171: 357-362
- Fletcher (1975). Etiology of fingersucking: Review of literature. *ASDC Journal of Dentistry for Children.* 42: 293-298
- Graber T (1958). Thumb- and finger- sucking. *American Journal of Orthodontics.* 45: 258-264
- Kaplan M (1959). A note on the psychological implications of thumb-sucking. *Journal of Paediatrics.* 37: 555-560
- Larsson E, Dahlin K (1985). The prevalence and aetiology of the initial dummy- and finger- sucking habit. *American Journal of Orthodontics.* 87: 432-435
- Larsson E (1987). The effect of finger-sucking on the occlusion: a review. *European Journal of Orthodontics.* 9: 279-282
- Mistry P (2008). The occlusal effects of digit sucking habits amongst school children in Northamptonshire. MSc Thesis, University College London.
- Mitchell L (2000). An Introduction to Orthodontics. 2nd Edition. Oxford University Press
- Moore M, McDonald J (1997). A cephalometric evaluation of patients presenting with persistent digit sucking habits. *British Journal of Orthodontics.* 24: 17-23
- Nanda R, Khan I, Anand R (1972). Effect of oral habits on the occlusion in preschool children. *ASDC Journal of Dentistry for Children.* 39: 449-452
- Patel A. Digit sucking in children resident in Kettering (UK). *J Orthod* 2008; 35: 255-61
- Popovich F, Thompson G (1973). Thumb- and finger-sucking: its relation to malocclusion. *American Journal of Orthodontics.* 63: 148-155
- Proffit W (2000). *Contemporary Orthodontics.* 3rd Edition. St Louis, Missouri: C.V. Mosby
- Traisman A and Traisman H (1958). Thumb- and finger-sucking: a study of 2650 infants and children. *Journal of Paediatrics.* 52: 566-572
- Warren J, Slayton R, Bishara S, Levy S, Yonezu T, Kanellis M (2005). Effects of nonnutritive sucking habits on occlusal characteristics in the mixed dentition. *Pediatric Dentistry.* 27: 445-450

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Why isn't my appointment book full anymore?

Experiencing huge gaps in your appointment books?

CARL PARNELL offers a few helpful suggestions...

MY workload seems to be disappearing with the summer sun. In the 40 plus years that I have been a practising GDP, I cannot remember a time when my appointment book was not booked up weeks ahead. When I look at it today I am astonished at the amount of white space.

I'm sure many of you out there are seeing a similar situation, but as most GDPs are quite insular and inter-professional communications are poor – we would never be seen to lose face by saying to a colleague that we were struggling to fill our appointment book or failing to reach our UDA targets – so evidence is sparse.

However, I decided to test the water. I rang eight practices within a short radius to see how long I would have to wait for an appointment as a new NHS patient. To my

amazement, all could offer an appointment within 48 hours. So much for the access problem then.

So what has happened? Have we all spread our recall intervals and so created these gaps as per Departmental guidelines? Or is there another reason? What am I doing wrong? On brief analysis I came to the conclusion that I had been the "victim" of a strange set of circumstances, which I had never before encountered. Firstly there is the new target-driven contract with the "simplification" of the patient charge system, which has caused confusion amongst both dentists and patients alike. Having to deal with, and explain the likes of, occasional treatment guarantees "further treatment within two months" plus the related charges, whilst also trying to achieve a UDA target. It has not been easy. On top of this, we find ourselves in the midst of a global recession, leading to uncertainty and apprehension amongst our patients. This has been intensified by political talk of "savage cuts" and the possibility of higher taxes to come. Our patients are cutting back on spending wherever they can.

A pharmacist friend has also recently told me that now she regularly gets customers asking "which two of the items [prescriptions] do I really need as I can't afford to pay for all four?"

Target-based systems are inherently flawed, because in most instances targets will be met often to the detriment of the underlying principles that they set out to achieve. Therefore I have to ask myself whether I have changed my prescribing patterns because of the contract? This seems to be the case across the board, with reduced laboratory work and an increase in extractions in order to achieve my UDA target. Are my patients starting to feel that they are no longer getting a good deal?

What can I do? Well I've had to accept that for the foreseeable future:

- My treatment planning will have to be more demand-led and cost sensitive.
- New management processes with regard to patient recalls will need to be implemented and strictly monitored.
- Better management of my appointment book and time allocation is necessary to

reduce time wastage.

• More importantly perhaps is that patient management needs to be improved in order to provide that element of "value added" that was previously missing due to poor management or simple complacency. In other words, I need to provide value for money in the eyes of my patients. It's time for me to stop blaming the "system", the contract, the Department or the recession and to concentrate on the future of my practice.

Some of this I can do myself, but I'm sure that I'll need professional help with many of the management issues – after all I was trained as a clinician and that's what I'm good at. ■

About the Author

Carl Parnell is a director of The Dentistry Business and has been in private practice since 1998.

He currently spends some time in practice and the rest of his time advising and coaching practices in aspects of quality assurance and Clinical Governance, including preparing for a DRO visit.