Advice on Dummy and Digit-Sucking Habits

These guidelines are intended to provide advice for health professionals involved in the care of children with dummy (pacifier) or digit-sucking habits. They are based on the current evidence available, which is predominantly observational in nature, as there are no controlled clinical trials at present.

Background

- **Racial factors**
  80-90% of children in the Western world have sucking habits\(^1\)
  These habits are not universal across the world, for example they are non-existent in Eskimos\(^2\)
- **Gender**
  Sucking habits are equivalent for males and females until the age of 1 year\(^3,4\)
  After this they are more common in females, because males give up the habit earlier.
- **Socio-economic factors**
  Dummy sucking is more common in the lower socio-economic groups\(^5\)
  Digit sucking is more common in the higher groups\(^5\)
- **Age**
  Most habits begin in the first 3 months and are so common as to be considered normal\(^3\)
  Dummy-sucking declines rapidly after this and is almost non-existent after the age of 7 years\(^6\)
  Digit-sucking tends to decline at a slower rate, and more habits persist into the permanent dentition\(^6\)
- **Frequency of habit**
  It is thought that significant effects on the teeth are only likely to occur if the habit exceeds about 6 hours a day\(^7\)
- **Type of feeding (breast or bottle-fed)**
  The method of feeding has no effect on the prevalence or type of habit\(^3,8\)

Aetiology (2 theories)

1. Habit is a sign of underlying emotional disturbance\(^1\)
2. Habit is a learned behaviour. Infants have a natural sucking urge that encourages eating. Sometimes this urge persists after enough food has been eaten.\(^9\) This surplus urge is satisfied with dummy or digit-sucking, and may last from a few minutes to a few hours.\(^10\)
   Current opinion favours this second theory.

Effects of Habits

**Dummy-sucking**

- Effects are primarily in the deciduous dentition, as the habit usually stops before the permanent teeth erupt\(^1\)
- Reduction in overbite, producing an anterior open bite.\(^11,12\) This effect is minimised using “orthodontic” dummies, whose teats are flatter in cross-section and collapse in the mouth\(^1\)
- Reduction in maxillary arch width, which may cause a posterior cross-bite\(^11,13\)
- Long-term effects (i.e. in the permanent dentition) are negligible\(^14\)

**Digit-sucking**

The effects are determined by the nature and intensity of the habit.

- Reduced overbite or anterior open-bite, which is often asymmetrical\(^1\)
- Upper incisors are proclined,\(^14\) lower incisor may be retroclined\(^15\)
- Maxillary arch may be narrowed, producing a cross-bite and displacement\(^1\)
- Effects are often seen in the permanent dentition due to the continuation of the habit
- Small but probably clinically insignificant effects on the underlying skeletal pattern\(^14\)

**Effect on the digit**

- Eczema can result from repeated wetting and drying and in extreme cases angular deformities can occur (although most self-correct on elimination of the habit).\(^16\)
- It may also be a means of acquisition and spread of infectious diseases, such as roundworm, herpetic gingivostomatitis or staphylococcal impertigo.\(^16\)
Prevention of Habits

If a dummy is provided, there appear to be fewer problems in the long-term, because the majority of dummy-sucking habits are self-limiting and stop before eruption of the permanent teeth. Any persistent dummy-sucking habit is easily broken by removal of the dummy.

It has been suggested that if a digit-sucking habit is noticed, a dummy should be given to the child. If a dummy is used it must not be sweetened. After the age of 2, to prevent problems with speech development, it should be used as little as possible during the day.

Breaking the Habit

- The child must want to stop otherwise any approach is likely to be unsuccessful.
- It is advisable to start discouraging habits when the permanent incisors are beginning to erupt, to prevent effects on the permanent dentition
- A child who is undergoing severe psychological trauma is unlikely to respond to habit breaking. A psychologist’s input may be required

The following methods for breaking the habit are listed in the order in which they should be used:

Non-physical methods
- Explanation
  Explain the effects of digit-sucking and the need for stopping.
  This is often all that is required to break the habit.
- Reward
  Introduce a simple system to monitor and reward stopping the habit
- Habit reversal
  Teach the child to carry out alternative activities when they have the urge to suck the digit

Physical methods
- Digit
  Examples include a sticking plaster on the digit, or wearing a glove sewn to the pyjama top at night
- Intra-oral appliances
  These deterrent appliances have been shown to be effective within 10 months.
  They must be fitted with the full understanding and co-operation of the child and must not compromise compliance with any future orthodontic treatment.

Correction of Problems Caused by Habit

- Active orthodontic treatment should not be attempted until the habit is broken
  Fortunately, most of the problems created by the habit are reversible once the habit is eliminated
- It has been suggested that digit-sucking beyond the age of 7 has been associated with an increased risk of root resorption during orthodontic treatment.

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References for “Advice on Dummy and Digit-sucking Habits”

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