Teething trouble and its management in children
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Abstract

Teething is the process by which an infant's teeth sequentially appear by breaking through the gums. This article aims to describe the clinical signs and symptoms, parent’s belief about teething and myths and modern approaches to teething.

Keywords: Teething; Primary Teeth; Tooth Eruption; Pain; Infant

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Teething was known as “dentition difficilis,” Latin for pathologic dentition or difficult dentition. Even though teething is a normal part of infant development, surprisingly little is known about the causes and management of teething signs and symptoms.(1, 2) It is widely believed that pain and other discomfort associate with tooth eruption in infants should and can be managed by pharmacological and non-pharmacological means. Teething pain is the commonest symptom associated with the eruption of the primary dentition.(2)

The eruption of primary teeth usually begins around 4-8 months of age with the eruption of the lower incisors, and is complete at around 30-36 months of age when second primary molars erupt. The timing of tooth eruption varies by as much as six months.(3) Early intervention is to help establish good dental hygiene and decrease the risk of dental caries.(4)

The relationship between the eruption of the deciduous teeth and the general health of infants has been documented for over 5,000 years.(5) The signs and symptoms associated with teething may be local or systemic. Local teething symptoms are; gingival swelling, irritation, redness of the gum, thumb sucking and gum rubbing.(6-8) The systemic disturbances that are associated with teething include; loss of appetite, crying, increased salivation, drooling, diarrhea, boils, general irritability(9) and fever, runny nose, conjunctivitis, and some day-time restlessness. Moreover, increased biting, wakefulness, ear rubbing and facial rashes have also been reported to be associated with teething.(10) Generally, the eruption of deciduous teeth begins when other changes in the infant’s immune system, growth and development are also occurring; that is, around six months of age. This predisposes an infant to a variety of infections like respiratory tract infections, urinary tract infections, middle ear infections, etc.(11)

The teething period has been described as an 8-day window, including the 4 days before tooth eruption and the 3 days following. The two most recent prospective cohort studies found only a weak, if any, association between teething and many previously reported symptoms.(4) Neaderland described three common perceptions of teething: i) teething is pathological and has cause-effect relationships with symptoms, ii) teething is physiological, symptoms are merely co- incidental; and iii) teething is predominantly physiological, and discomfort is a normal consequence. For many people, teething is perceived to cause significant discomfort to infants and substantial distress to the parents.(2, 4)

The symptoms of teething vary from baby to baby. The list below describes symptoms that a teething baby may experience. (4)

Irritability: As tooth rises closer to the surface, gums may become increasingly sore and painful. The pain and discomfort usually worsen when the first teeth and molars come out. This is due to the fact that molars are bigger in size.(12) In most cases, the baby becomes accustomed to the teething sensation and over time tolerates the pain better.(13)

Drooling: From three to four months of age, drooling is increased than normal. Teething stimulates drooling, and it can be worse for some babies than others.(5)

Coughing: The extra saliva can cause occasionally cough or gag. This is usually nothing to worry about, as long as baby does not seem to be in any discomfort, show signs of a cold or flu and run a high fever.(5)

Chin rash: If infant drools a lot, the constant contact with saliva can cause the skin around the chin and mouth to become irritated. To help prevent this, gently wipe your baby’s mouth and chin periodically throughout the day.(5)

Biting and gnawing: A teething baby will gnaw on anything he or she can get their mouth around. The counter pressure from biting or gnawing on an object helps to relieve the pressure from under the gums.(13)
Cheek rubbing and ear pulling: Pain in the gums may travel to the ears and cheeks, particularly when the back molars begin coming out. It is for this reason that you may see your baby rubbing his or her cheeks or pulling at the ears. However, keep in mind that pulling at an ear can also be a sign of an ear infection. (5)

Diarrhea: Most parents usually notice slightly looser bowel movements when a baby is teething. It is believed that the most likely cause of this is the extra saliva swallowed, which then loosens the stool. (4)

Low-grade fever: A low-grade fever can be defined as a temperature above 36.5 degrees and fluctuating constantly but not exceeding 38.5 degrees. It is important to notify your doctor if a fever lasts more than two days. (5)

Not sleeping well: With teething pain occurring during the day and night, you may find your child wakes more often at night when the pain becomes too much. Most parents agree that the child wakes more often at night during the first set of teeth and when the molars come out. (13)

Cold-like symptoms: Runny noses, coughing and general cold symptoms are believed to be caused by the baby regularly having his or her hands in their mouth. Play it safe and always notify your doctor if these symptoms occur. (13)

The symptoms of teething are associated with increased drooling, sucking of digits and rubbing of gingiva. Nevertheless, more recent prospective studies reveal that most systemic teething signs and symptoms (fever, vomiting, facial rashes, sleep disturbances, stool looseness, decreased appetite for liquids, and cough) are due to other causes. (5)

Many of the historical misconceptions about teething and the related dangerous remedies persist. (4)

The largest study by Macknin showed significant associations with biting, drooling, gum rubbing, irritability, sucking and temperature 37.5°C. (10) However, attributing these symptoms to teething was not possible as no symptom occurred in 35% of infants during each teething period, and no symptom occurred 20% more often in the teething period than in the non-teething period. The results presented by Jaber et al considered only temperature and only included children before the emergence of their first tooth. (14)

Survey was conducted among Finnish mothers to know their belief about teething, they found that 90% of mother believed teething causes gum rubbing and finger sucking, 77% that it causes drooling, and 50% that it leads to fever, sleep disturbance and daytime restlessness. Recently Coreil, citing 18 studies from the Americas, Asia, Africa, and Australia, commented on the near-universal belief across folk cultures worldwide that teething is related to diarrhea. Many Australian parents likewise believe that teething causes numerous symptoms in young children even when such symptoms may be indicative of other serious conditions. (15)

The conclusions of all the prospective studies are that no specific symptoms or clusters of symptoms can reliably predict the emergence of a tooth. Furthermore, symptoms that might be attributed to teething are not serious, and the presence of fever (38.5°C) or other clinically important symptoms are very unlikely to be caused by teething. This is borne out by Swann, who reviewed 50 children admitted to hospital with a presenting complaint of teething. (16) In 48 children, a medical condition was diagnosed, including one case of bacterial meningitis. Although delayed teething may be associated with several disease-related conditions such as hypopituitarism, hypothyroidism, and rickets, and syndromes like Down syndrome and cleidocranial dysplasia, 1% of healthy children may not have had their first tooth by 12 months of age. (17)

Teething is viewed by parents as a significant event in the growth and development of a child, and they usually get concerned when their infants don’t have a tooth by 9–10 months. (11)

Pharmacological strategies for teething generally aim to achieve analgesia, anesthesia, sedation or a combination of these. The conservative use of acetaminophen and ibuprofen can aid in the discomfort caused by teething. Benzocaine at a concentration of 20% gives temporary relief of pain on mucosal tissues. These local anesthetics agents are found commonly in teething preparations. Benzocaine should be used with caution and generally is not recommended because of the risk of methemoglobinemia and can interfere with the gag reflex and cause your infant to choke. (4)

Cuddle Therapy: A little extra tender loving care goes a long way when infant is having a hard time teething. If infant gets distressed, hugs and cuddles will help comfort and reassures if he or she is distressed. Distract your child from the pain with activities such as reading, singing or playing. (3)

Rubbing Gums: Lightly massaging baby’s gum with a clean finger for one to two minutes can aids in alleviating the discomfort. Keep infant’s mouth and gums clean even if does not have any teeth. (5)
Teething Rings: Teething babies love to chew and bite on anything. Teething rings are made of different types of plastic. Approved teething rings do not cause cavities or chocking.(3)  

Food for Chewing: If infant is over six months old, try offering them a sugar free teething biscuit or unsweetened rusk. It is also preferable to avoid foods that are too hard as these could bruise the gums and cause further pain.

Teething Gels: Teething gels massaged into the gums with a clean finger can provide relief. (5)  

Soothing Sore Chins: Excessive dribbling caused by teething can irritate babies' chin, neck and chest which may become dry, chapped and sore. Applying a simple barrier cream can also help keep their skin soft and smooth and may ease any chapped skin.

Cognitive management of teething should be considered. Behavioral therapies such as sleep management can be used to combat sleep disturbances, wakefulness and irritation.(11)  

Young children are exposed to a wide variety of situations, environments, illnesses and are guaranteed to have multiple episodes of fever, congestion, and diarrhea. The inclusion of teething and its management as a topic in antenatal classes, in professional health programs and in continuing professional education for health professionals and childcare workers should be considered.

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