

DENTAL PROBLEMS RELATED TO PREMATUREITY

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Parents of premature infants often wonder if their child's dental problems are related to their early birth. Studies have shown that premature infants have an increased risk for developing dental problems such as: delayed tooth eruption, enamel hypoplasia, tooth discoloration, palatal groove, and a possible increased risk for needing braces. The following gives a brief overview of each of the dental concerns associated with prematurity.

Delayed tooth eruption is common among premature infants, especially those who were very small and/or very sick. Studies have shown these delays are caused from infection after birth, poor nutrition (or nutrition that is significantly different than that of the womb), and/or prolonged intubation. Some believe that birth stimulates the process of tooth eruption; therefore, a premature birth will alter this process. Refer to *Your Premature Baby and Child: Helpful Advice for Parents* (Berkley, 1999) for a chart on normal dental eruption and, if your preemie was very sick or very small, anticipate his or her teeth may be 2-6 months late coming in.

Enamel hypoplasia means there is a lack of enamel (white coating) on the outside of the teeth. Premature infants have enamel hypoplasia four times more often than term children. The left upper front primary teeth are twice as likely to have enamel hypoplasia than the right. It can be found on the permanent teeth, however the problems are generally less severe. Causes are intubation and mechanical ventilation, as well as a lack of certain nutrients in the NICU. Children with enamel hypoplasia are more likely to develop cavities in these teeth and will need careful, routine brushing and close monitoring by the dentist.

Tooth discoloration generally occurs only in those preemies who had high bilirubin levels in the NICU. A yellow or brown color is seen only on the primary teeth and cannot be removed by brushing or having them cleaned by the dentist.

A palatal groove is a narrow groove in the roof of the mouth, also called the hard palate. This groove is caused by intubation in the NICU. Some preemies have developed grooves after being intubated for as few as seven days, but generally speaking, the longer the intubation time, the more likely a palatal groove will develop. Complications such as crowding or poor positioning of the teeth, sucking or speech problems, and/or hearing difficulties may result.

The need for braces may or may not be caused by prematurity. Few studies have been done in this area, and dentists continue to debate this issue. Some orthodontists treat preemies' crowded teeth or a palatal groove with a spacer in the first few years of life. Others believe that the need for braces cannot be determined until the six-year molars have arrived and will not treat any problems until the dimensions of the jaw can be measured.

Some parents wonder if missing teeth are a result of prematurity. There are no studies showing this association.

As with many other medical problems associated with prematurity, the smaller and sicker your preemie was, the more likely he or she will develop the above problems. If you are concerned about your preemie's teeth, be sure to see a pediatric dentist or a general dentist who has experience treating premature infants.

Preemies with oral aversions or sensory issues may not want the dentist to come near their mouths. An occupational or speech therapist may have some helpful advice for taking your child to see the dentist. It may be best to take your preemie with sensory issues to see a pediatric dentist who specializes in handling difficult situations with children.

The American Dental Association recommends that all children should see a dentist by their first birthday. If your preemie has not yet developed any teeth by age one, call your dentist and ask for his or her advice about when to schedule the first visit.