Redwood Pediatric Dentistry
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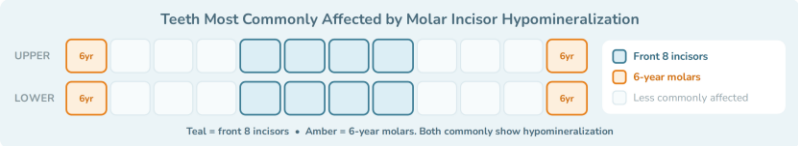
Understanding Hypomineralization & Hypoplasia

Some children's teeth develop with less mineral content than usual, a condition called hypomineralization. This is more common than many people realize, and there's a lot we can do to protect these teeth

1 What Is Hypomineralization?

Hypomineralization occurs when teeth form with less mineral content than normal. The enamel may look **chalky, white, yellow, or brown**, and can be softer and more vulnerable to decay and sensitivity.

Hypoplasia is a related condition where the enamel is thinner than normal or missing in spots. The tooth may look pitted, grooved, or have small missing patches. Because the causes often overlap, both conditions can appear in the same child.



2 Why It Matters

- **Up to 10× higher cavity risk:** Softer, less-mineralized enamel is far more susceptible to decay than normal enamel.
- **Sensitivity:** These teeth are often especially sensitive to cold foods, drinks, and temperature changes.
- **Appearance:** Discoloration can be a concern for some children and families, and we have options to help, like Icon and Curodont.
- **More common than you'd think:** About 1 in 3 to 6 children worldwide is affected by some form of enamel hypomineralization.
- Children with hypomineralization in baby teeth are **5× more likely** to have it in their permanent teeth as well.



3 What Causes It?

Enamel forms during a specific window of early development, so anything that disrupts that process can affect the final result. Known contributing factors include:

- **Genetics:** a strong hereditary component
- **Childhood illness:** especially high fevers during the period when teeth are forming (usually the first 3 years of life)
- **Injury to baby teeth:** trauma to a primary tooth can affect the developing permanent tooth underneath
- **Pregnancy factors:** severe morning sickness, maternal illness, or certain medications during pregnancy
- **Nutritional deficiencies:** during key developmental windows
- **Microplastics and plastic-related chemicals:** an emerging area of research. Bisphenol A (BPA) and related compounds found in plastics disrupt enamel formation in laboratory studies, and microplastics are one route of exposure. Human evidence is still developing.

4 Nutrients That Support Healthy Enamel

Enamel forms during pregnancy and early childhood, so nutrition during these periods matters. A balanced, nutrient-rich diet supports strong enamel from the inside out, along with supplements if your pediatrician recommends them.



- **Vitamin D:** salmon, egg yolks, fortified milk, sunshine
- **Calcium:** dairy, leafy greens, almonds, tofu
- **Phosphorus:** meat, eggs, dairy, whole grains
- **Vitamin K2:** grass-fed butter, egg yolks, cheese, natto
- **Vitamins A, C, E + B vitamins:** sweet potatoes, citrus fruits, leafy greens, eggs

5 How We Can Help

- **Early detection and gentle monitoring** at every cleaning visit
- **Fluoride varnish treatments** to strengthen and protect the softer enamel
- **Protective sealants:** to seal off vulnerable grooves before bacteria can get in
- **Sensitivity relief:** hydroxyapatite toothpaste or prescription fluoride toothpaste with phosphate, MI Paste, or in-office desensitizers
- **Minimally invasive treatments:** SDF, ICON resin infiltration, or Curodont™ depending on severity and location
- **Restorations when needed:** fillings, orthodontic bonds, or crowns to restore heavily affected teeth and prevent further breakdown

Questions about your child's enamel?

Hypomineralization is manageable, especially when caught early. We're happy to walk through what we're seeing, which teeth are affected, and what we recommend at your next visit.

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References

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