

Dental and Orthodontic Findings in the Patient with a 22q11.2 Deletion

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Oral Manifestations

There is a very high prevalence of dental and orthodontic findings in the patient with a 22q11.2 deletion (66-77%).

Oral Manifestations

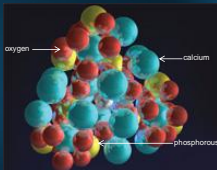
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Oral Manifestations

- Enamel irregularities
- Dental crowding/spacing
- Delayed eruption of permanent teeth
- Single central incisor
- Missing teeth (15%)
- Moderate to high rate of decay
- Poor oral hygiene
- Malocclusion
- Reduced salivary flow
- Altered salivary composition

Enamel Irregularities

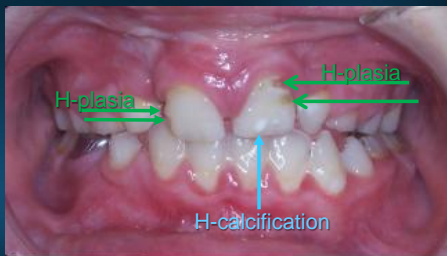
- Hypoplasia—disturbance in the formation of the enamel matrix
- Hypocalcification—defective mineralization of enamel



Dr. J. Timothy Wright

Enamel—96% inorganic material, crystals
4% organic material, protein

Enamel Irregularities

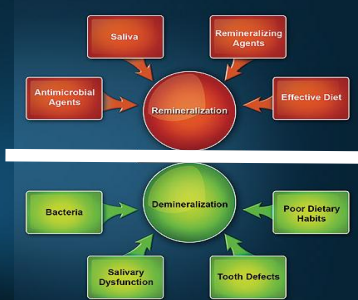


High Rates of Decay

- Enamel irregularities
- Childhood illness
- Nutritional supplements
- Decreased salivary flow
- Altered salivary composition-higher numbers of decay producing bacteria and impaired buffering capacity
- Hypoparathyroidism
- Medication
- Oral aversion

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High Rate of Decay Deminerlization/Remineralization



Oral Manifestations Malocclusion

- CII—Lower jaw back
- Anterior open bite
- High arched palate



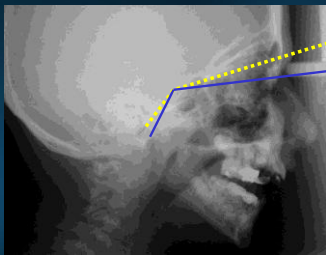
Oberoi, S, et al J Calif Dent Assoc. 2011 May;39(5):327-32.

Oral Manifestations Malocclusion

- Obtuse cranial base angle
- Low muscular tone
- Thumb habit/pacifier...



Obtuse Cranial Base Angle



22q11.2
W/o 22q11.2 ———

Most Common Malocclusion Possible Causes Low Muscle Tone

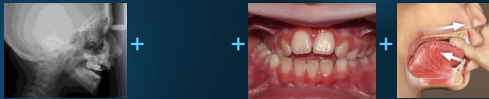


Most Common Malocclusion Possible Causes Thumb Habit



Most Common Malocclusion Possible Causes

- Obtuse cranial base angle
- Low muscular tone
- Thumb habit/pacifier...



Prevention and Common Sense

- Optimal Prevention
- Remin/Demin Cycle
- Fluoride and CaPhosphate
- Pediatric Dental Visits >2X Per Year
- Brush and Floss
- Sealants on ALL Primary and Permanent Molars
- Limit Sugar Drinks
- NO Sipping Except Water
- Check Meds for Mouth Dryness
- Sugarless Gum is GOOD
- Pediatric Dentist at Age 1
- Orthodontic Consult at Age 6

