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# Dental Issues in Turner's Syndrome

# Famous People With Turner Syndrome



Linda Hunt, actress

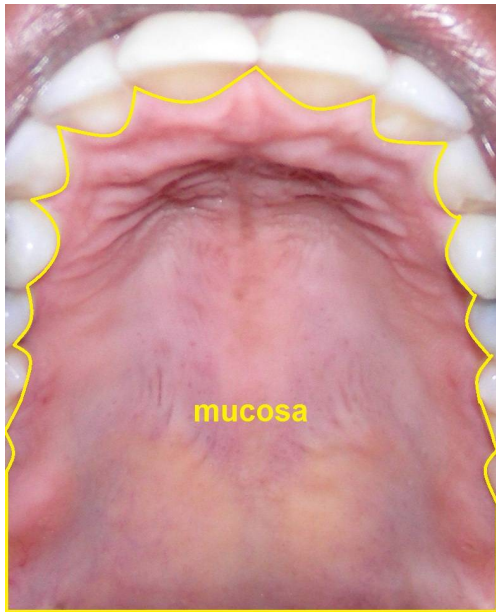


Melissa Marlowe,  
gymnast

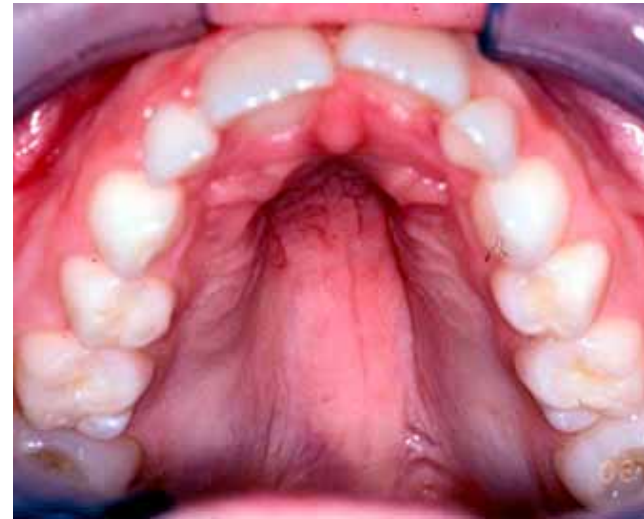
# Dental Characteristics in TS

- Short cranial base
- High palatal vault
- Retrognathic mandible (and maxilla)
- Distal molar relation
- Large overjet
- Wider mandible
- Increased frequency of bilateral crossbite with anterior open bite

# Palatal Shape



Normal palate



High palatal vault

# Profile and Overjet



*Overjet 8mm*



*Normal Overjet*



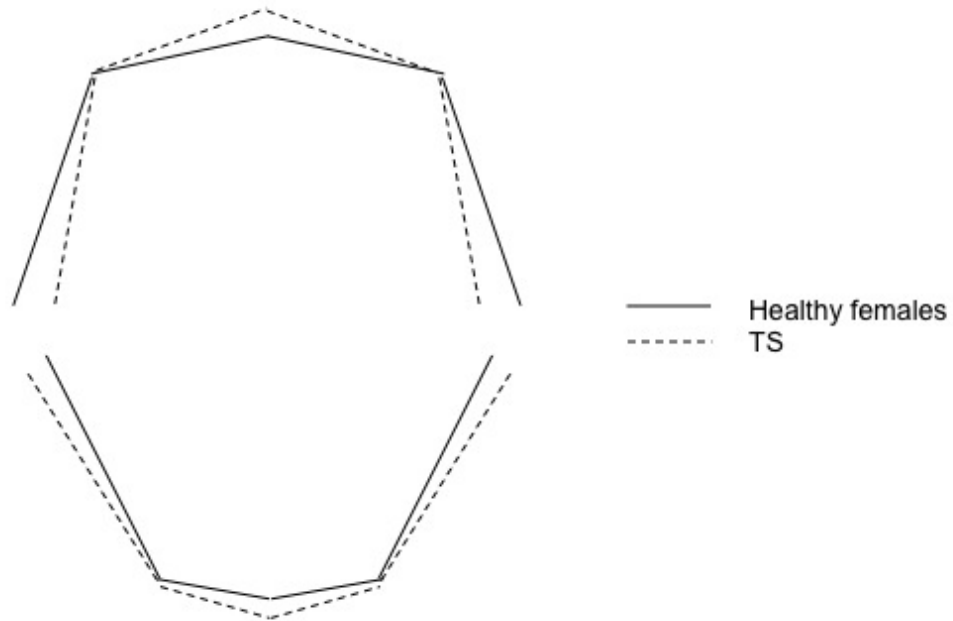
*Retrognathic Profile*



*Straight Profile*

*Twin Block™ 7 Months*

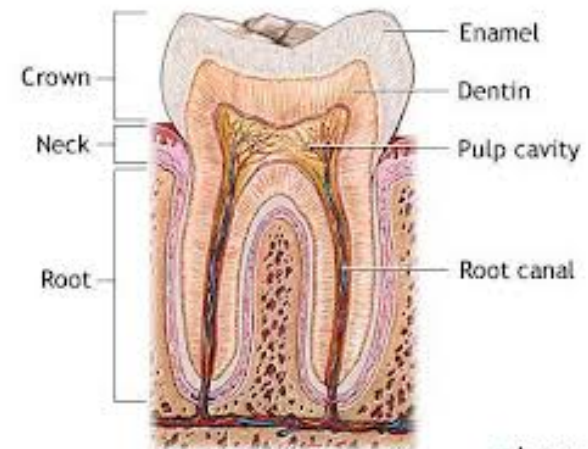
# Maxilla/Mandible Relationship





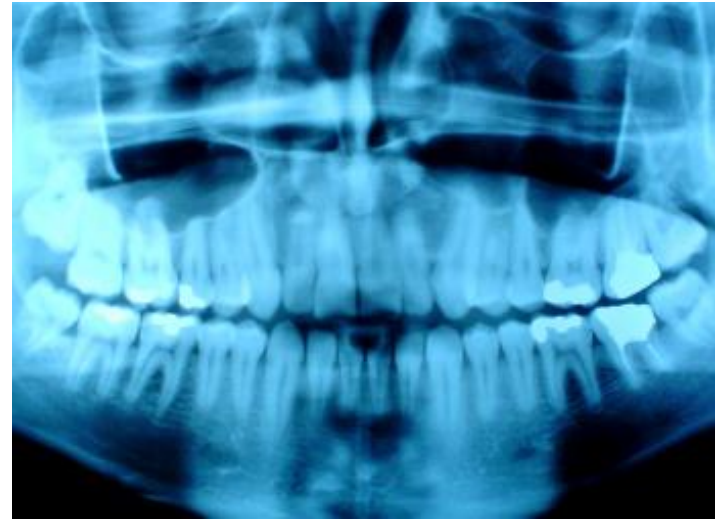
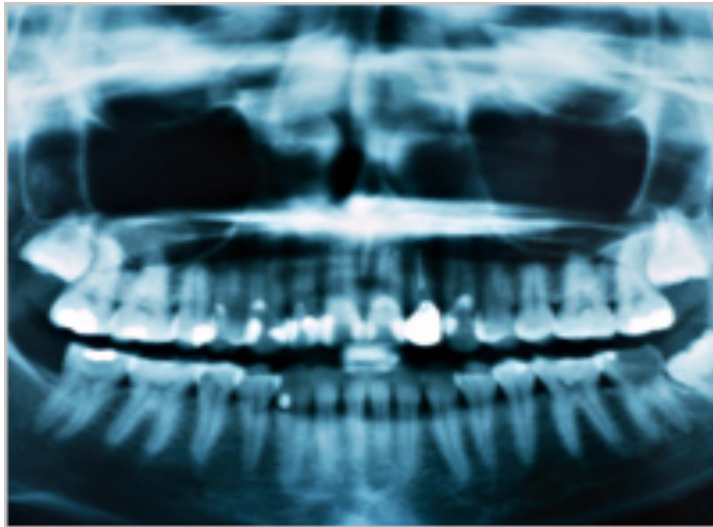
# Dental Morphology in TS

- Smaller crown width in permanent teeth
- Reduced crown height
  - Most likely due to thinner enamel. Dentin usually not affected
- Altered cusp shapes
- Shorter roots
- Atypical root/canal patterns



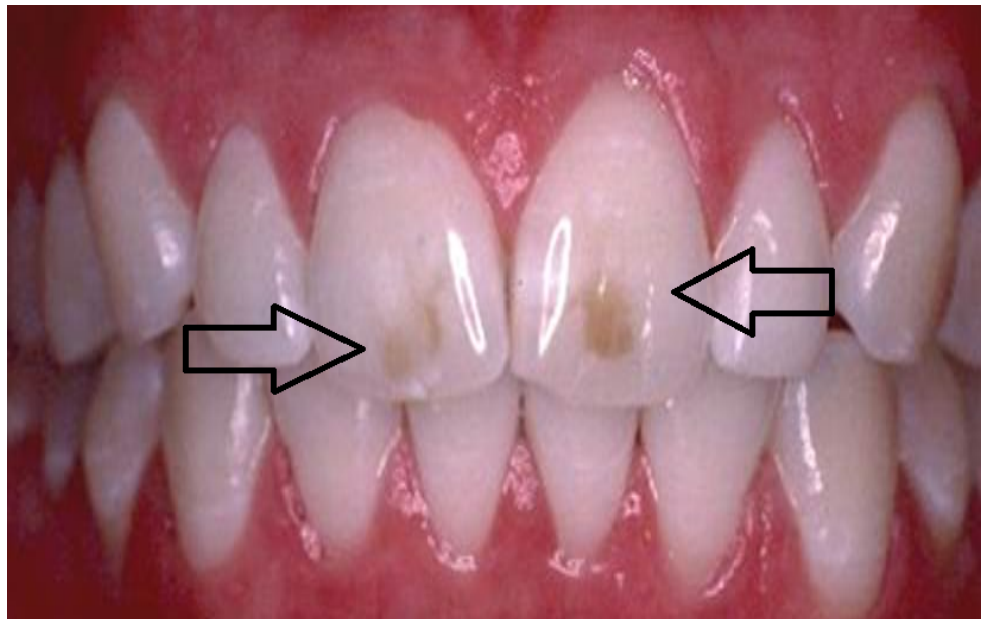


# Disparity in Root Length



# Enamel Defects

- Macroscopic enamel defects
- Increased enamel hypoplasias and opacities



# Orthodontic Considerations

- The small and retrognathic mandible may contribute to malocclusion and other dental abnormalities
- Correction of the characteristic Class II malocclusion and chin deficiency of TS patients cannot be expected from GH treatment, even if it begins very early
- Orthognathic surgery may be necessary to correct malocclusions

# Orthodontic Considerations

- It is recommended that all girls with TS see a pediatric dental specialist by the age of 2 yr and an orthodontist no later than age 7 yr
- Girls with TS are also at greater risk for root resorption, which can lead to tooth loss, especially during orthodontic treatment
- Osteoporosis may complicate orthodontic treatment

# Other Dental Considerations

- Antibiotic prophylaxis due to any cardiac issues
- Fluoride regimen
- Adaptive hygiene techniques for dexterity issues

# Oral Hygiene

- Early diagnosis of oral anomalies and timely treatment of dental problems by a general dentist and an orthodontist is essential
- Early steps to good oral health in your child: Clean your child's mouth twice a day even if he/she does not have teeth yet. Wipe his/her gums with gauze. Anything that touches someone else's mouth should not be allowed to touch his/her mouth.
- Once the first tooth appears, use a soft-bristled toothbrush and water to brush your child's teeth.

# Oral Hygiene

- Children should have their first dental visit around the time of their first tooth eruption and no later than age 1
- There should be 20 teeth in your child's mouth by age 3
- Never put your child to sleep with a bottle containing anything but water
- Routine exams should occur every six months or as determined by your child's dentist
- Once your child learns not to swallow toothpaste, brush his/her teeth with a rice-sized speck of fluoride toothpaste

# Cavity Formation

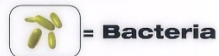
## How Do Cavities Form?

### DEMINERALIZATION

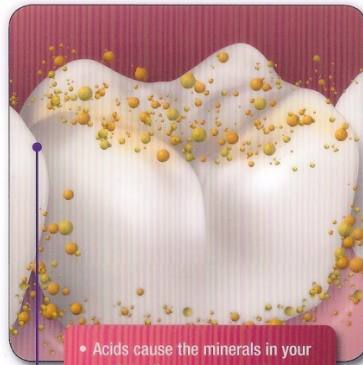
Tooth enamel is made up of minerals. When your teeth have been in contact with strong acids, demineralization (the loss of minerals from tooth enamel) occurs.<sup>1</sup>



• Bacteria are always present in the mouth. Acids are produced by these bacteria when you eat sugar and other carbohydrates<sup>2</sup>



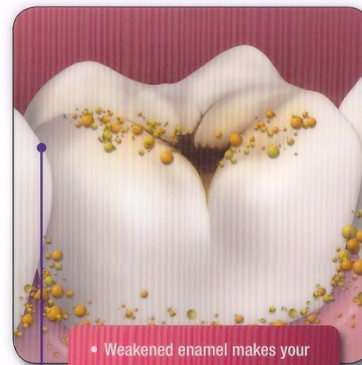
= **Bacteria**



• Acids cause the minerals in your teeth to dissolve, weakening your enamel<sup>1</sup>



= **Carbohydrates**



• Weakened enamel makes your teeth vulnerable to cavities,<sup>2</sup> which is why demineralization must be treated early



= **Acids**

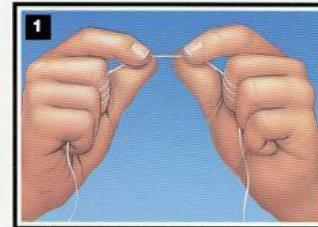
*Acid results from many types of foods & beverages you may consume regularly.*



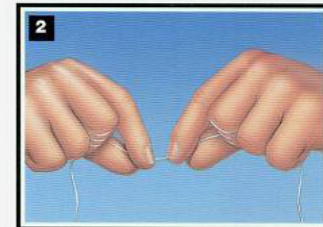
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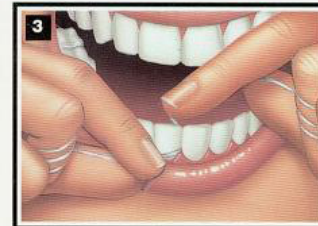
# Proper Oral Hygiene



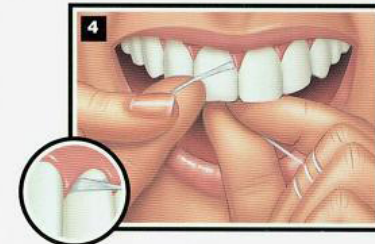
1 Wind 18" of floss around middle fingers of each hand. Pinch floss between thumbs and index fingers, leaving 1" - 2" length in between. Use thumbs to direct floss between upper teeth.



2 Keep a 1" - 2" length of floss taut between fingers. Use index fingers to guide floss between contacts of the lower teeth.



3 Gently guide floss between the teeth by using a zig-zag motion. **DO NOT SNAP FLOSS BETWEEN YOUR TEETH.** Contour floss around the side of the tooth.



4 Slide floss up and down against the tooth surface and under the gumline. Floss each tooth thoroughly with a clean section of floss.

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