Remineralization plays an important role in preventive dentistry

What is remineralization?

- The oral environment undergoes a constant cycle of mineral loss (demineralization) and gain (remineralization)
- Demineralization can lead to exposed tubules which may cause dentinal hypersensitivity
- Remineralization is achieved when healthy saliva (charged with fluoride, calcium, and phosphate ions) deposits a hydroxyapatite-like layer on demineralized portions of the tooth[5,6]

CROSS-SECTION OF TOOTH STRUCTURE

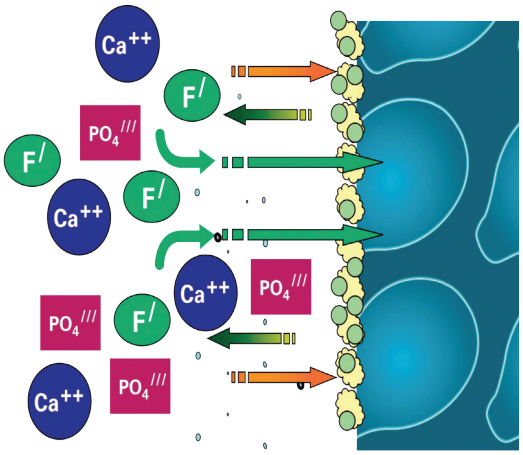
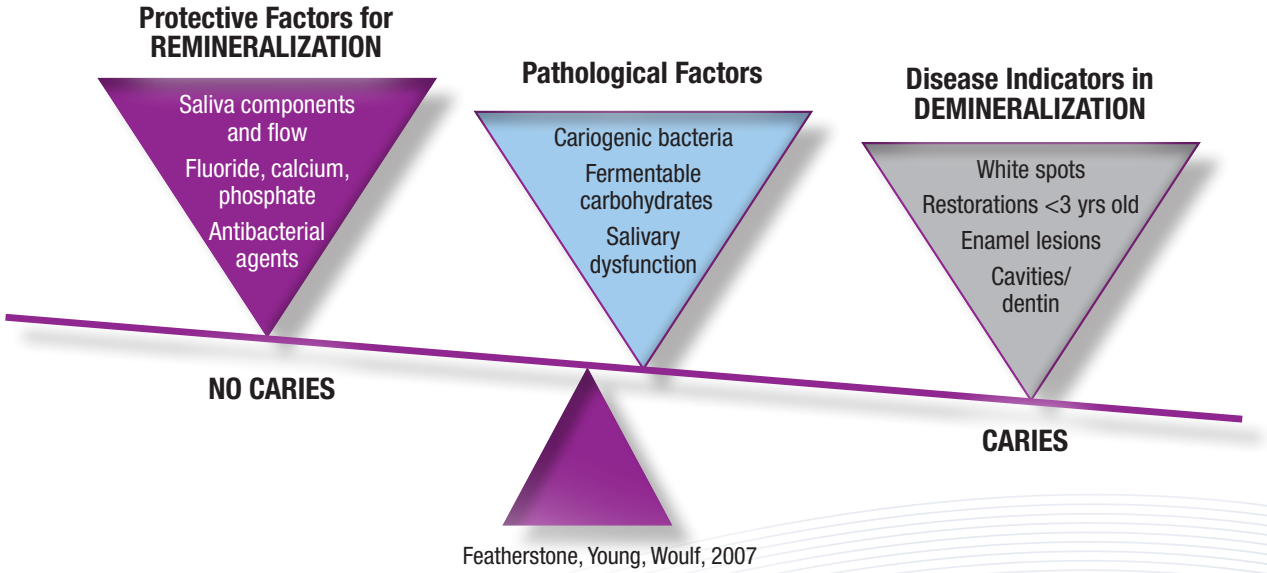


Image courtesy of The Academy of Dental Therapeutics and Stomatology

THE CARIES IMBALANCE[5]



Featherstone, Young, Woulf, 2007

Demineralization can be caused by:

- Acidic drinks, such as soda and sports drinks
- Whitening and orthodontic procedures
- Reduced salivary flow from prescription medicines[5]
- Sugars in the presence of biofilm

Demineralization

can lead to ***exposed tubules*** *on the tooth surface, which may cause dentin* ***hypersensitivity***[5,6]