

Oral Health & Healthy Aging: Building Strength from the Inside Out





About WIHA

- **Mission:** To improve the health and well-being of all people as we age by disseminating evidence-based programs and practices and by engaging in collaborative public health strategies in Wisconsin and beyond.
- <https://wihealthyaging.org>
- **Age Well Newsletter**



Our Speaker



- Dr. Patti Sigl
- Dental Degree from Marquette University
- Algoma Family Dentistry

A close-up photograph of an elderly couple smiling joyfully. The man on the left has a white beard and wears dark-rimmed glasses and a light blue shirt. The woman on the right has blonde hair and wears red-tinted sunglasses and a purple top. Both are wearing leis made of pink and orange flowers. The background is softly blurred, showing hints of a festive setting.

Oral Health & Healthy Aging

"Oral health means much more than healthy teeth. You cannot be healthy without oral health." -Surgeon General's Report on Oral Health



Dr. Patti Sigl

Algoma Family
Dentistry

PREVENTION

is the BEST medicine!





If a 10 year old
gets a cavity filled,



by the time he turns 40, he will
have paid **over \$1,000** in
services to maintain it...



costing an **average \$2,187**
by his **79th** birthday.

This cost is **per cavity** and well above the
lifetime cost of **preventive care.**

The Data and Analysis Center (DAC) is a company of dental science experts and business analysts affiliated with Delta Dental Plus Association. The federation of Delta Dental member companies used the concept. The DAC has a data warehouse of millions of claims submitted to Delta Dental member companies that are the basis for studying a variety of dental issues.



Key Topics

- *The link between oral health and nutrition
- *Oral health and systemic health connections
- *Building healthy habits to aid in prevention
- *Common dental problems and what to do about them

POLL

- What is the #1 cause of cavities?
 - Not brushing your teeth
 - Sugar frequency
 - Eating lemons
 - Not flossing

Cavity math

DENTAL DECAY PROCESS



**Bacteria /
Germs**

+



**Food, Drink,
Sugars, Sweets**

=



**ACID
Produced**



**Healthy
Tooth**



+



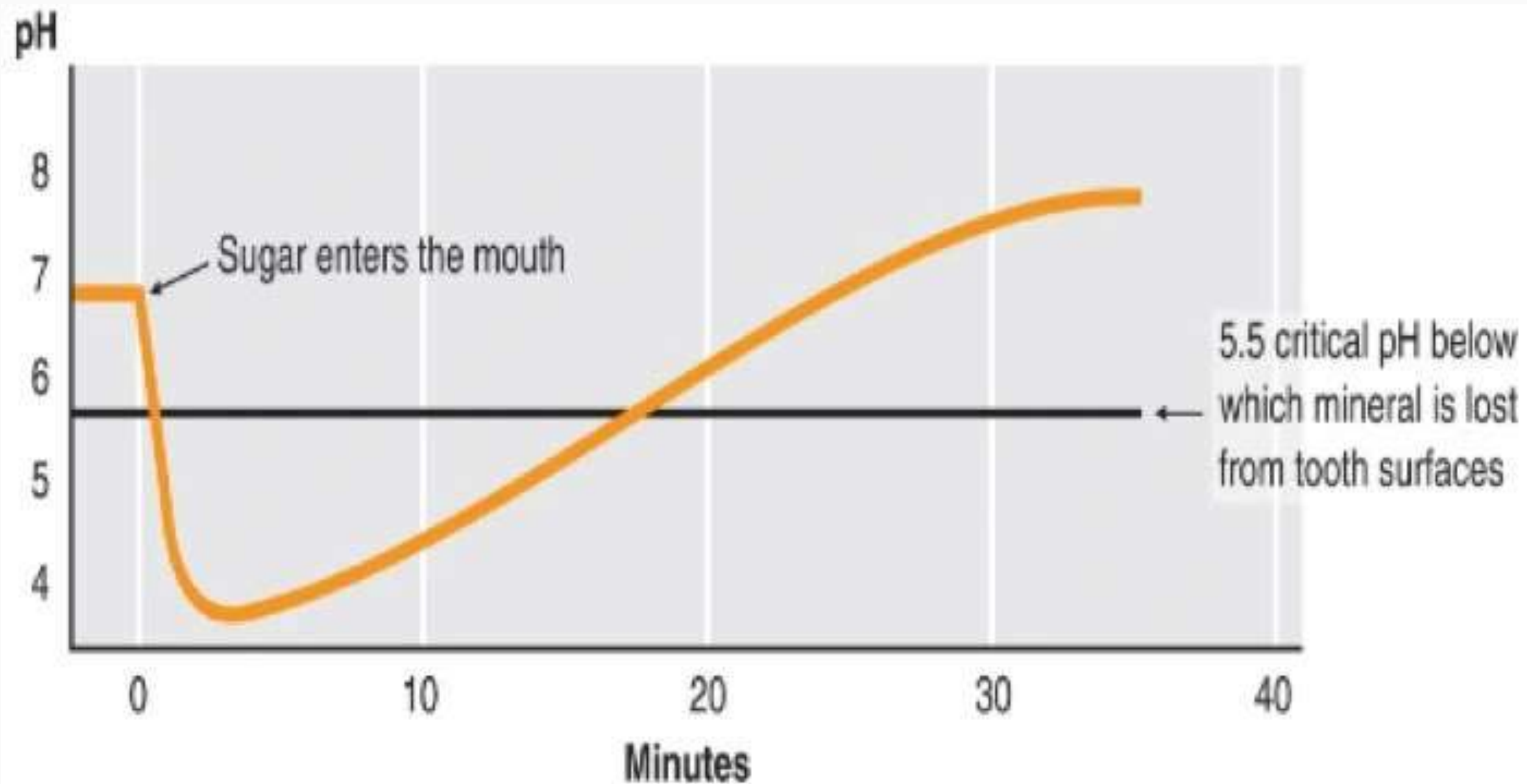
ACID

=



Cavity

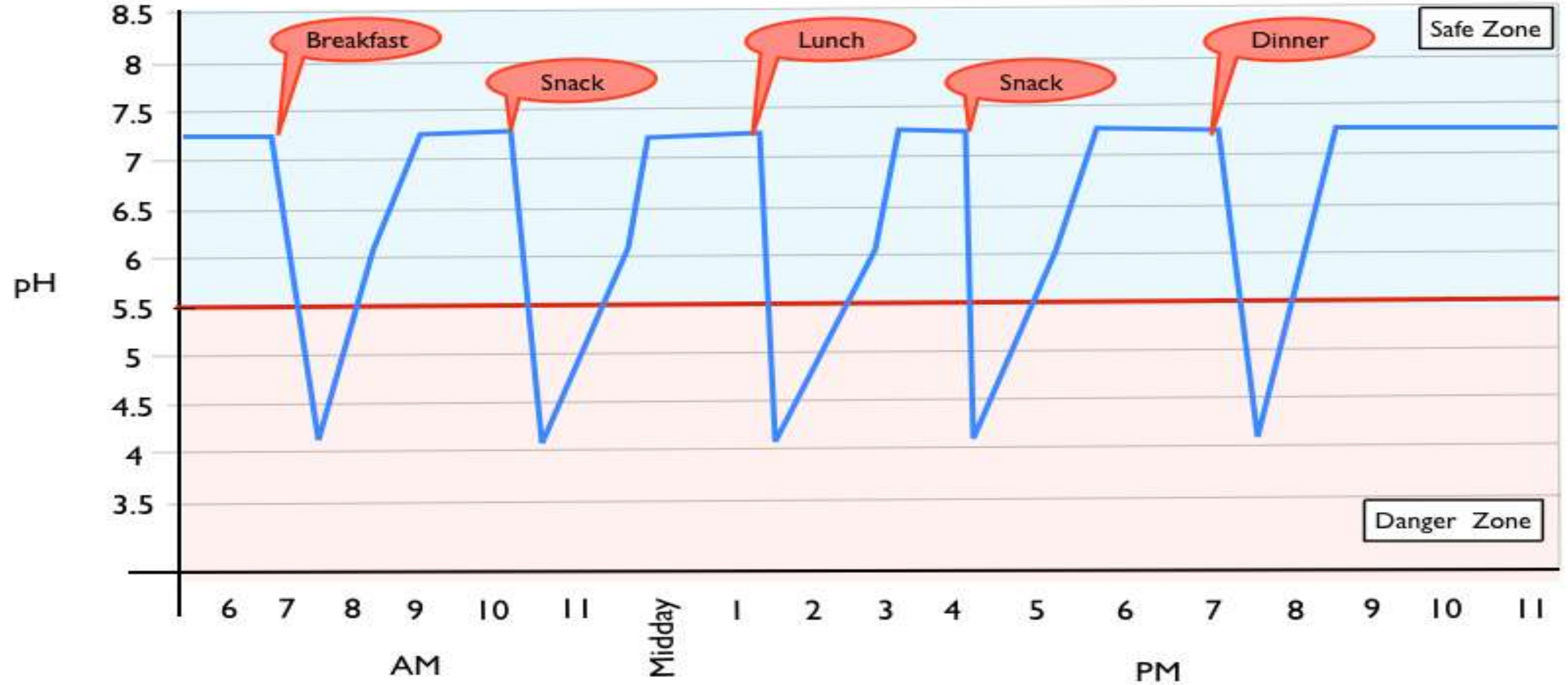
How Cavities Form



Every time we eat or drink there is an opportunity for bacteria to produce acid and begin the cavity process.

FREQUENCY of sugar intake is the #1 Factor in cavity risk!

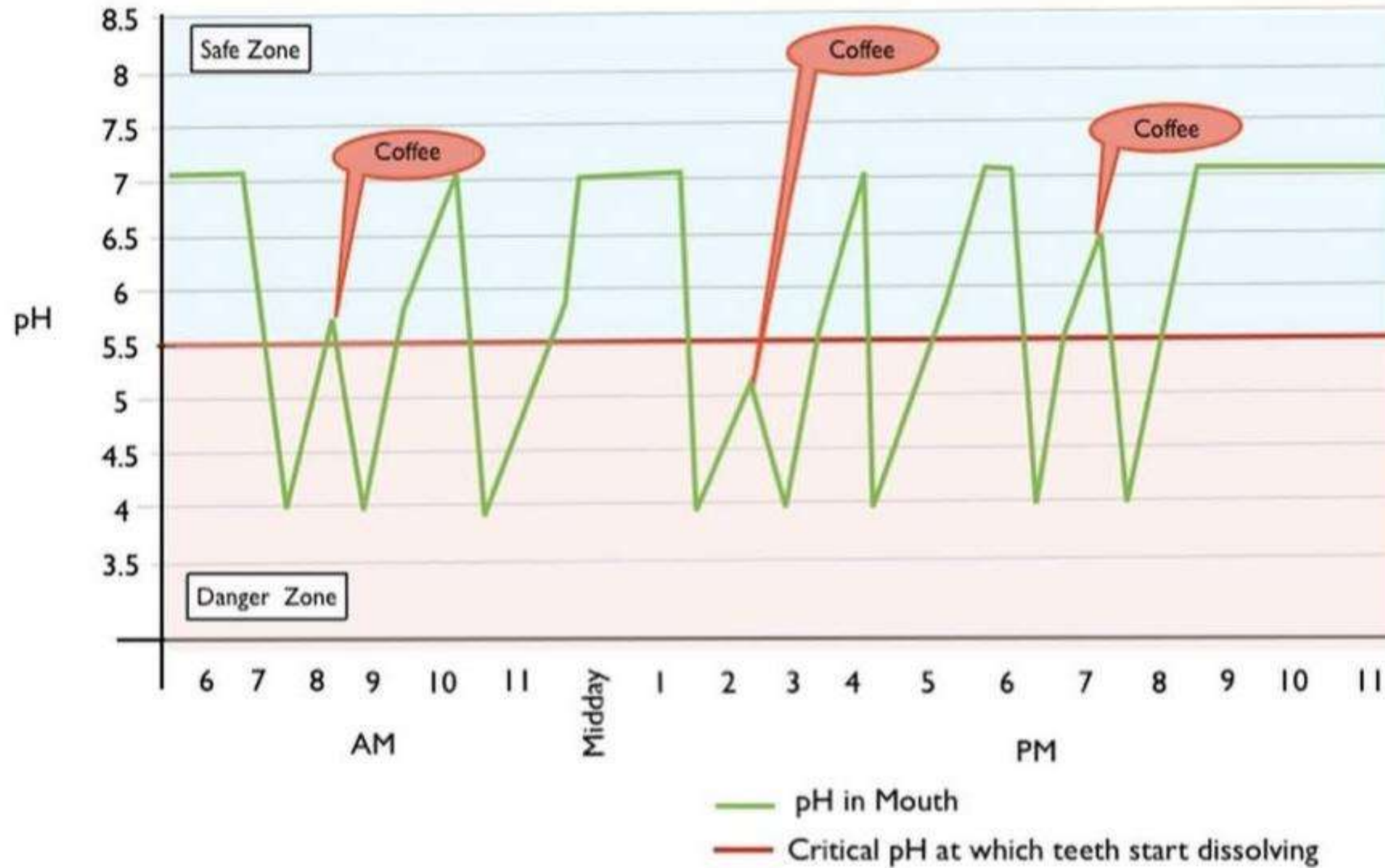
A Healthy Stephan Curve



— pH in Mouth

— Critical pH at which teeth start dissolving

A Less Healthy Stephan Curve



How does Fluoride work?

- Enamel is 95% minerals: Calcium and phosphorus which together form Hydroxyapatite
- 4% water and 1% protein
- Fluoride makes enamel more resistant to acids

Actions of Fluoride

Replaces hydroxyapatite crystals in the enamel matrix.



Becomes "fluorapatite"



Fluorapatite crystals are bigger, stronger, and less soluble.

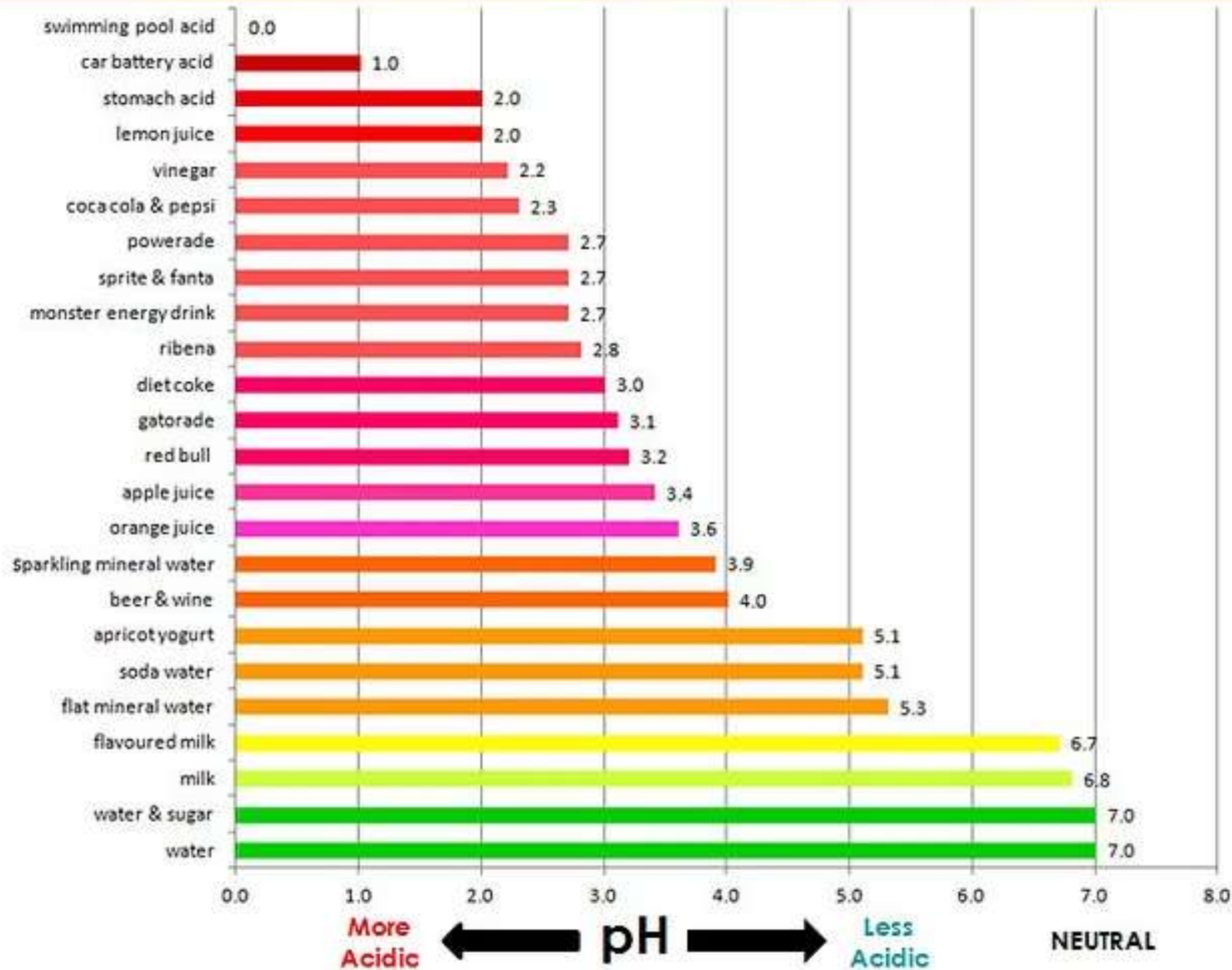
Inhibits demineralization by lowering the critical pH.

Critical pH of enamel is 5.5

Critical pH of enamel with fluoride is 4.5

Acidity (pH) of Common Drinks

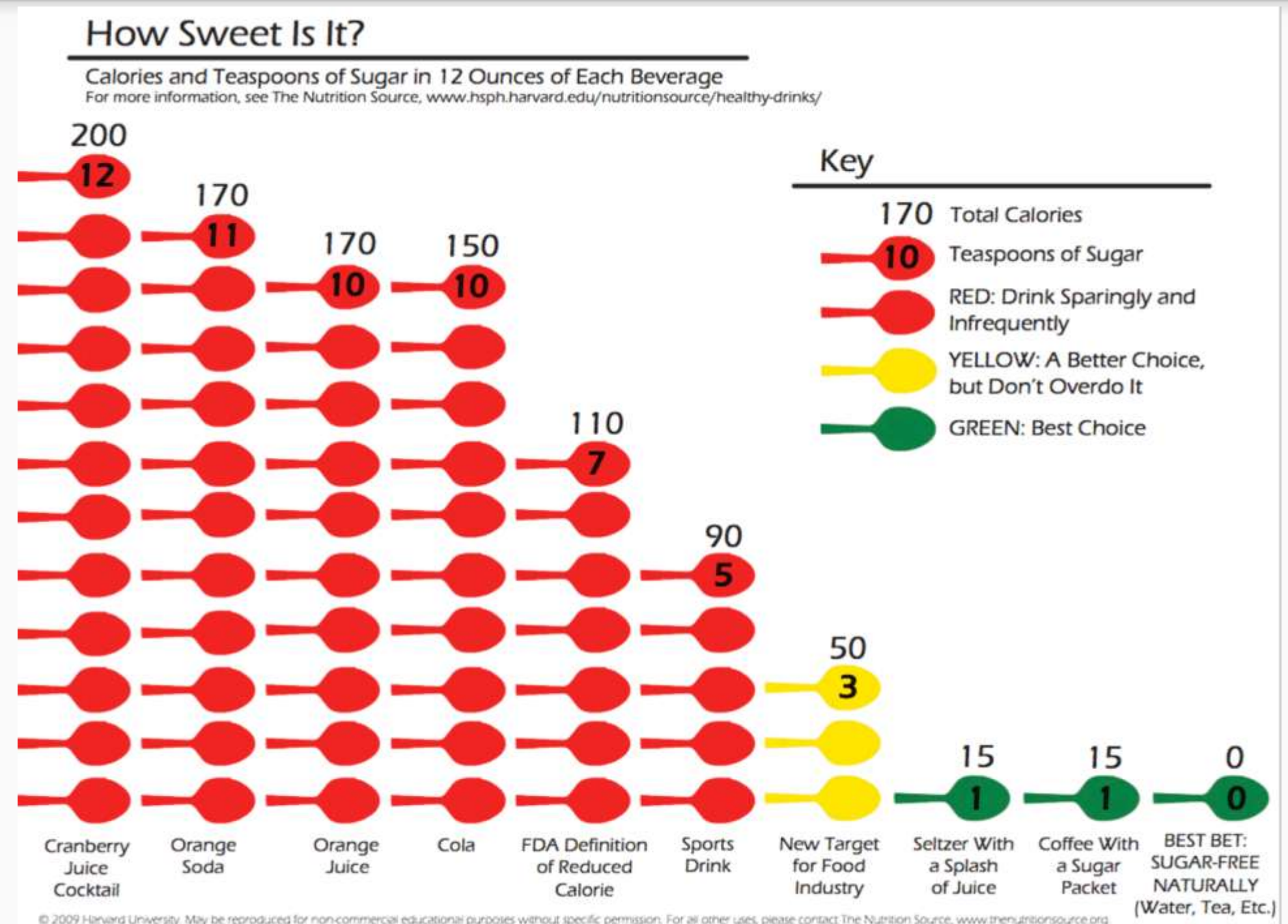
Tooth enamel starts to dissolve at pH less than 5.5



What should we eat and drink?

Foods that maintain neutral pH

- Protein and healthy fats
- Lean meats, milk, cheese and nuts
- Foods that are lower on the Glycemic Index



Glycemic Index

Low GI (<55), Medium GI (56-69) and High GI (70>)

Grains / Starchs		Vegetables		Fruits		Dairy		Proteins	
Rice Bran	27	Asparagus	15	Grapefruit	25	Low-Fat Yogurt	14	Peanuts	21
Bran Cereal	42	Broccoli	15	Apple	38	Plain Yogurt	14	Beans, Dried	40
Spaghetti	42	Celery	15	Peach	42	Whole Milk	27	Lentils	41
Corn, sweet	54	Cucumber	15	Orange	44	Soy Milk	30	Kidney Beans	41
Wild Rice	57	Lettuce	15	Grape	46	Fat-Free Milk	32	Split Peas	45
Sweet Potatoes	61	Peppers	15	Banana	54	Skim Milk	32	Lima Beans	46
White Rice	64	Spinach	15	Mango	56	Chocolate Milk	35	Chickpeas	47
Cous Cous	65	Tomatoes	15	Pineapple	66	Fruit Yogurt	36	Pinto Beans	55
Whole Wheat Bread	71	Chickpeas	33	Watermelon	72	Ice Cream	61	Black-Eyed Beans	59
Muesli	80	Cooked Carrots	39						
Baked Potatoes	85								
Oatmeal	87								
Taco Shells	97								
White Bread	100								
Bagel, White	103								



A top-down view of a variety of fresh foods including tomatoes, almonds, lemons, carrots, raspberries, walnuts, blueberries, pomegranate seeds, kiwi, strawberries, broccoli, and ginger, all arranged around a central text box.

Nutrition for older adults



Think **kids** eat the
most candy?

Think again.

Adults eat 65% of
all the candy
produced in the
U.S.



Nutrition for healthy teeth, bones and gums

Vitamin D - aids in absorption of calcium, phosphorus and magnesium (bone metabolism). Deficiency is linked to periodontal disease.

Vitamin A - Builds and maintains epithelium. Enhances immune system function. Improves salivary gland function.

Iron and Zinc - Wound healing. Collagen formation. Regulates inflammation

Nutrition for healthy teeth, bones and gums

B Vitamins - aids in the formation of new cells. Helps with wound healing. Collagen synthesis.

Vitamin C - Collagen formation. Deficiency causes gingivitis. Enhances immune system.

Calcium - Builds bone and helps remineralize teeth.

Fiber - Controls blood sugar. Reduces inflammation. Deficiency linked to periodontal inflammation.

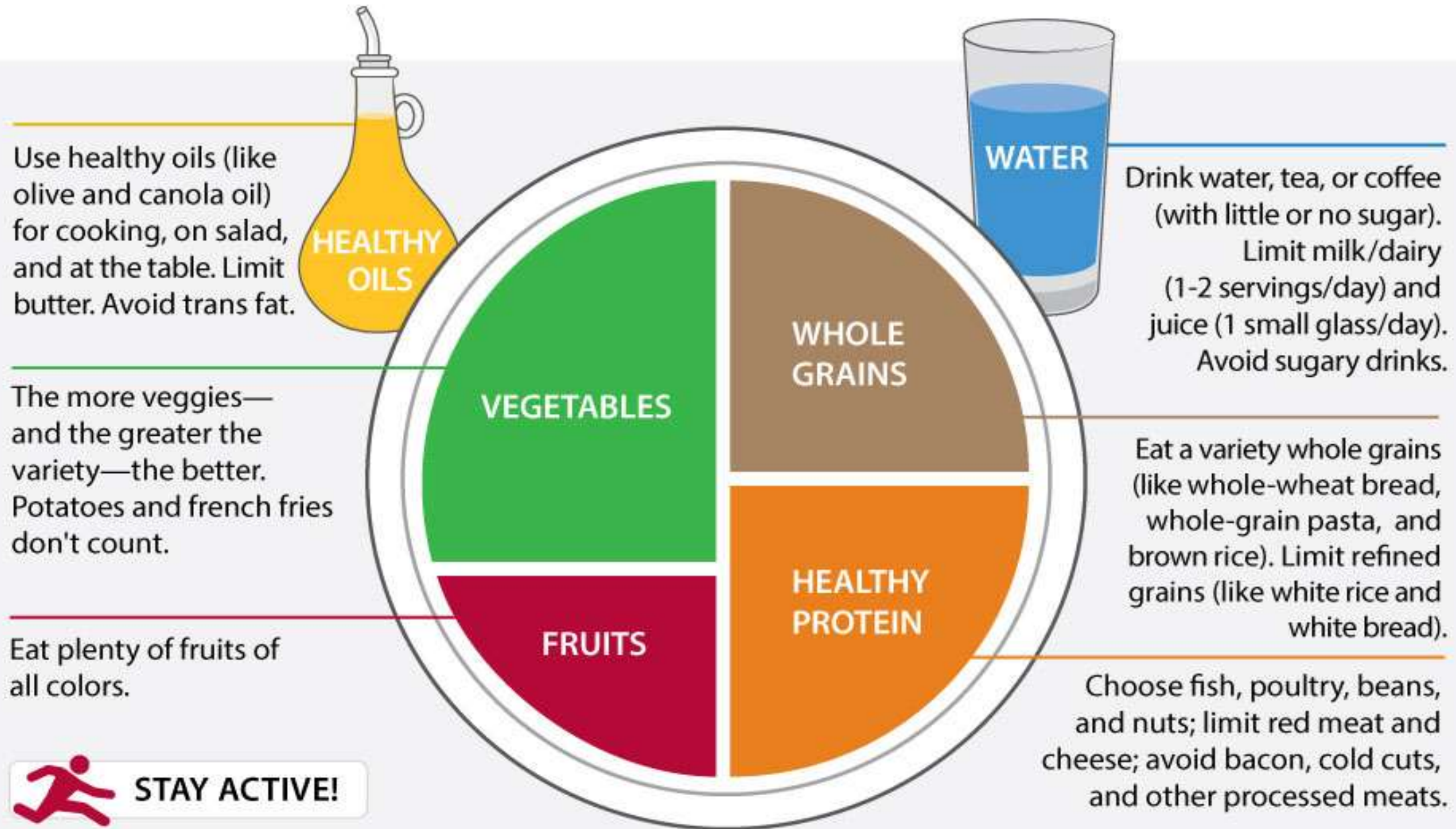
Nutrition for healthy teeth, bones and gums

Protein - Promotes growth. Maintains and repairs all tissues.

Lipids/fats - Omega 3 fatty acids have anti-inflammatory properties.

Probiotics - Strengthen immune system. Inhibit colonization of harmful bacteria/microorganisms

HEALTHY EATING PLATE



© Harvard University



Harvard T.H. Chan School of Public Health
The Nutrition Source
www.hsph.harvard.edu/nutritionsource

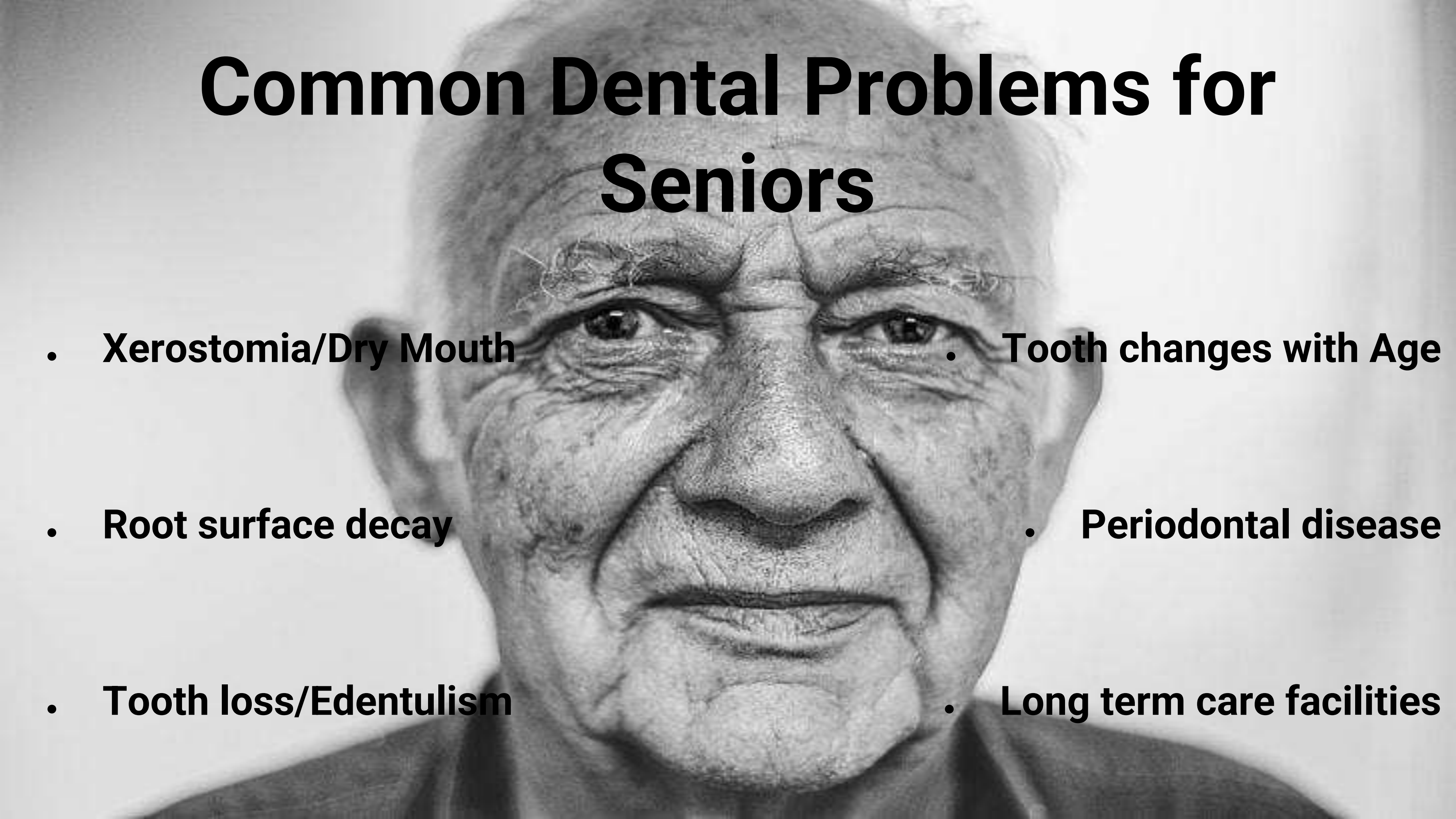
Harvard Medical School
Harvard Health Publishing
www.health.harvard.edu



Simple Tips to Remember

1. Limit meals to 3 times a day with no more than 2 between meal snacks
2. When not brushing after a meal- Try ending the meal with cheese, xylitol gum, or rinse with water to bring the mouth back to neutral 7.0pH
3. Drink water throughout the day in between meals and snacks.
4. Avoid soda and sugary snacks (even diet soda as it contain acid)

Common Dental Problems for Seniors



- **Xerostomia/Dry Mouth**
- **Root surface decay**
- **Tooth loss/Edentulism**
- **Tooth changes with Age**
- **Periodontal disease**
- **Long term care facilities**

Xerostomia

Dry Mouth



Common causes:

1. Medications
2. Health Conditions
3. Dehydration
4. Mouth breathing
5. Excessive caffeine, alcohol and smoking

Dry Mouth Symptoms



- A dry or sticky feeling in the mouth
- Difficulty swallowing or speaking
- Cracked lips or a dry throat
- Increased thirst
- A dry or sore tongue
- Bad breath (halitosis)
- Difficulty tasting food

Impacts on Oral Health



1. High risk for cavities!
2. Gum disease
3. Difficulty speaking and swallowing
4. Bad breath
5. Infections
6. Difficulty wearing dentures or partials

Dry Mouth—What can you do about it?



- Stay hydrated with WATER!
- OTC sprays, gels, moisturizers
- Sugar free gum or lozenges with xylitol—mint or citrus
- Impeccable oral hygiene with fluoride toothpaste/rinse. Rx may be recommended.
- Avoid caffeine and alcohol
- No smoking!



Root cavities



How does it happen?

- Overtime root surfaces are exposed
- More susceptible
- Dry mouth
- Improper brushing

What can you do about it?

- Prevention is #1
- Routine dental check ups and cleanings with risk assessment
- Dry mouth patients need to be EXTRA vigilant
- Manage bacteria and sugar/acid intake
- Rx fluoride
- Healthy Diet!

Periodontal Disease

- Leading cause of tooth loss in adults
- 45% of adults affected to some degree
- Bone loss can be halted but not reversed

How does it start?

- Poor oral hygiene
- Skipping years of cleanings
- Some forms can be genetic (very rare)
- Smoking
- Uncontrolled diabetes



Periodontal Disease



What can you do about it?

- Thorough brushing and flossing every day
- Quit smoking
- Deep Cleanings (scaling and root planing)
- Surgery may be needed
- Dental cleanings every 3-4 months

Tooth Loss Edentulism



- Losing teeth is NOT a part of normal aging.
- 30% of elderly have untreated decay
- 25% have lost bone due to periodontal disease
- Adults over 65 have an average of 18 teeth
- 25% have no teeth at all
- Most Medicare patients have no dental coverage so access to care is a challenge



Tooth Loss Edentulism



Negative impacts:

- Difficulty eating
- Inadequate nutrition
- Social impacts and dissatisfaction with appearance

What can you do about it?

- Dentures
- Partials
- Implants

Care for dentures and removable partial dentures



1. Brush dentures with a denture brush and mild soap
2. Soak dentures overnight in water or denture soaking solution
3. Brush your gums, tongue, and roof of the mouth to prevent bacterial overgrowth

Tooth changes with age



Tooth wear can happen for many reasons.

- Sometimes just normal wear from years of chewing
- Acid erosion from diet or acid reflux or eating disorders
- Clenching/Grinding
- Sleep apnea
- Using a toothbrush with hard bristles
- Crooked teeth can create challenges patterns of wear



Attrition



Abfraction



Erosion



Abrasion

Tooth changes with age



Before: severely worn teeth



After: normal and renewed

What can you do about it?

- Restore lost tooth structures with bonding or crowns
- Prevent damage from grinding with night guards
- Replace missing teeth so the remaining aren't subject to additional forces (especially when multiple teeth are missing)



Take care of your teeth and your teeth will take care of you!

Thank You!



Feedback

- Upon exit of zoom, please share your thoughts
- Those who complete the eval live will be entered to win a t-shirt!



Next for Age Well Series

- November 6

Age Well Series

FREE WEBINAR

Impact of Ageism on Physical and Mental Health

+ What You Can Do To Change It

Dr. Regina Koepp explores the profound impact of ageism on the physical and mental health of older adults, debunking harmful myths that aging limits growth or healing and emphasizing the importance of belonging as a key to resilience, longevity, and emotional well-being. Attendees will learn how ageism intersects with other forms of discrimination, exacerbating health disparities among marginalized older adults. Through evidence-based insights and practical tools, the session offers pathways to foster inclusive environments that support healing, dignity, and transformation—at every age.



November 6

1-2pm CST

Brought to you by:



wiha

Wisconsin Institute
for Healthy Aging
<https://wihealthyaging.org>

Next for Age Well Series

- November 10

Finding Your Third Place

Building Happier Communities (and Making Great Friends Along the Way)



What is your third place?

At a time when our nation is facing an epidemic of loneliness, when communities are suffering from loss of trust, low levels of engagement, despair, and political polarization, what if the answer to many of our problems lies in a simple idea? What if we just need to pay attention to the places where we find ourselves?

Reflect on these questions and more during this engaging presentation as we kick off Social Connection Awareness Week in Wisconsin.



Presenter: Richard Kyte, PhD
Viterbo University

November 10
12-1pm CST
FREE WEBINAR



QUESTIONS

