dhec

Healthy People. Healthy Communities.

South Carolina Department of Health and Environmental Control

Oral Health ⟺ Nutrition

Major Nutrition Related Diseases (WHO)

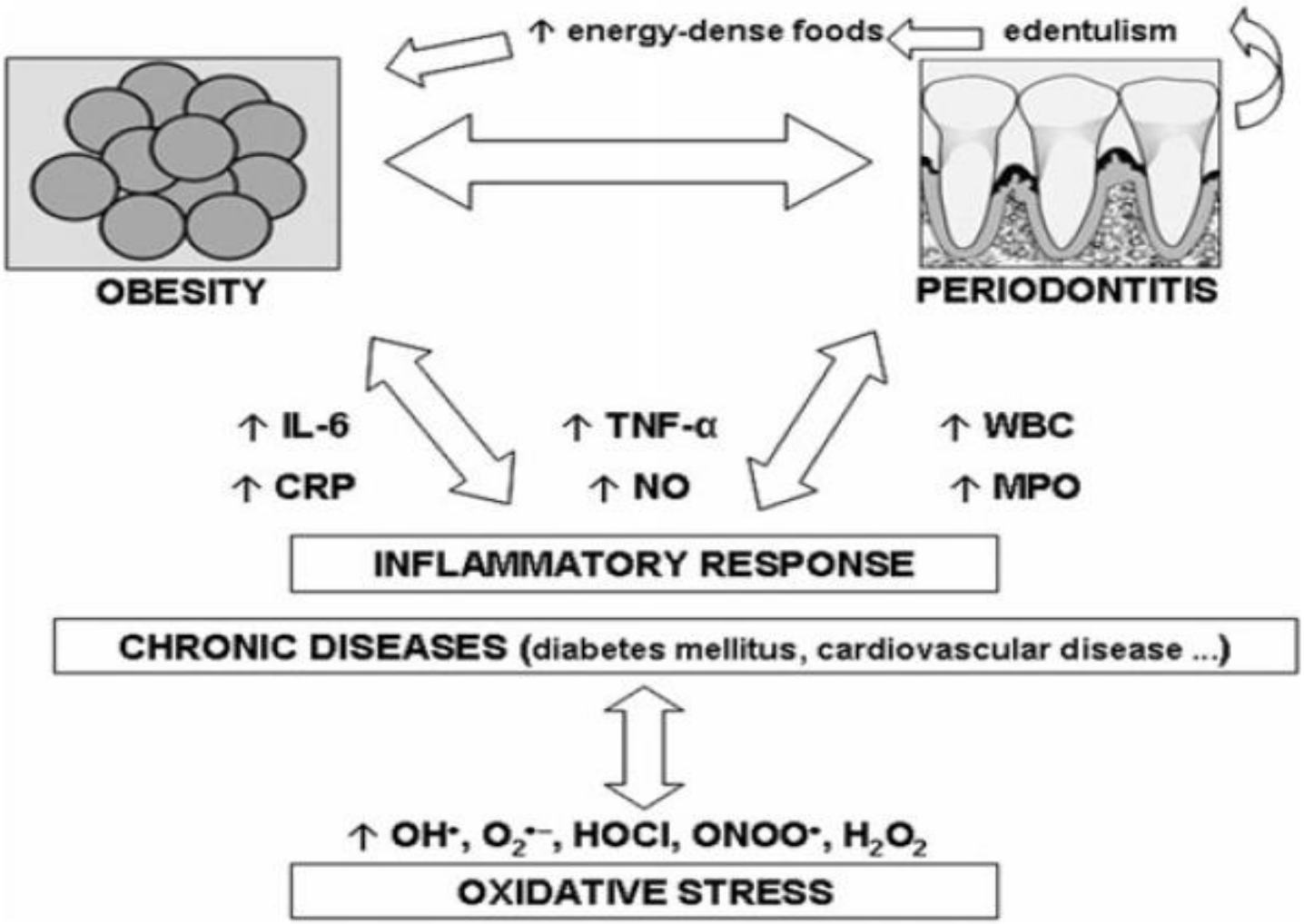
- Obesity
- Diabetes
- Cardiovascular Disease
- Cancer
- Osteoporosis and Bone Fractures
- Dental Diseases

We need healthy teeth and gums to eat nutritious foods. And we need to eat nutritious foods for healthy teeth and gums.

Recommendations

Strategies and Policies that fully recognize essential role of both diet and physical activity in determining good nutrition and optimal health.

Change is needed at the **individual** as well as **societal** and **environmental** levels.


↑ energy-dense foods
edentulism
OBESITY
PERIODONTITIS
↑ IL-6
↑ CRP
↑ TNF-α
↑ NO
↑ WBC
↑ MPO
INFLAMMATORY RESPONSE
CHRONIC DISEASES (diabetes mellitus, cardiovascular disease ...)
↑ OH•, O2•−, HOCl, ONOO•, H2O2
OXIDATIVE STRESS

Foods for Optimal Oral Health

South Carolina Oral Health Coalition

- *Calcium-rich foods,* such as low-fat or fat-free milk, yogurt and cheese, fortified soy drinks and tofu, canned salmon, almonds and dark green leafy vegetables help promote strong teeth and bones.
- *Phosphorus*, found in eggs, fish, lean meat, dairy, nuts and beans is good for strong teeth.
- *Vitamin C* promotes gum health, so eat plenty of citrus fruits, tomatoes, peppers, broccoli, potatoes and spinach.
- Smart snacking also can keep your mouth in good shape.

Academy of Nutrition and Dietetics

Nutrient	What For?
Protein	Tooth structure, mucosal development and immune function
Calcium	Tooth structure, enhance enamel remineralization
Phosphorus	Tooth structure
Zinc	Mucosal development and immune function
Antioxidants	Mucosal development, connective tissue, and immune function
Folate	Mucosal development, connective tissue and immune function – Perio
Iron	Mucosal development, connective tissue and immune function
Vitamin A	Mucosal development, connective tissues and immune function. Too much – Perio problems
Vitamin C	Collagen maturation. Maintain periodontal ligament; mucosal development, connective tissue, and immune function
Omega-3 fats	Mucosal development, connective tissue, and immune function. Modulates inflammatory response
Vitamin D	Mucosal development, connective tissue, and immune function. Enhance enamel remineralization.
B Vitamins	Epithelial Cell turnover.
Fluoride	Healthy tooth and bone formation. Enhances remineralization of enamel.

Dietary Influences in Oral Health

- Development of Oral Cavity
- Nutritional Deficiencies
  - Lack of protein
  - Lack of lipids
  - Lack of carbohydrates

- Ally or Enemy?
  - Dental Caries
  - Development of Enamel
  - Dental Erosion
  - Periodontal Diseases
  - Cleft Lip and Palate
  - Oral Cancer
    - Smoking
    - Antioxidants
  - Oral Thrush
  - Malignant Lesions
  - Mucosal Disorders

Contributing Factors

- Inflammation and Obesity
- Disordered Eating
- Aging
- Tobacco Use

- Sugars and Oral Health
- Amount
- FREQUENCY
- Added sugars worse
- No more than 10% total energy intake in form of added sugars (WHO)

Preventive Interventions and Behaviors

Brush your teeth

Avoid smoking

Eat non-sticky whole, nutrient-dense foods

Aim for anti-inflammatory foods

Eat some raw, crunchy fruits and vegetables every day

Limit added sugars and acidic foods and beverages

Maintain a lean/healthy body composition

Increase the amount of arginine in your diet

Get regular exercise

Get calcium and minerals

Drink Water with Fluoride