

# Nutrition and Oral Health

A well-balanced, nutritious diet is important for good oral health and general health. The food we eat supplies the nutrients that the body, bones, teeth and gums need to renew tissues and help fight infection and disease, including periodontal (gum) disease. Dental hygienists work with their clients to promote good overall health by keeping the mouth and body healthy with preventive oral care treatment and nutrition counselling.

## THE IMPACT ON ORAL AND OVERALL HEALTH

Hectic lifestyles, fast food, fad diets, large amounts of sugar and trendy supplements can have health repercussions. A poor diet can contribute to gum disease and tooth decay. Food high in sugars and starches increase the production of acids that can erode and weaken the tooth's outer layer (enamel). Eventually, these acids can cause tooth decay.

Lack of proper nutrition can lead to other diseases and conditions in the body such as obesity, hypertension, high cholesterol, type 2 diabetes, cardiovascular disease, osteoporosis and some cancers, including oral cancer.

## RISK FACTORS

There are a number of factors that can put individuals at risk for poor oral and overall health such as an unhealthy diet, age, medication, allergies, restrictive diets, chronic disease, lack of vitamins (supplements), as well as socioeconomic conditions.

### Children and teens

Children need a balanced nutritious diet so that their teeth develop properly and are strong and decay-resistant. Eating patterns and food choices are important factors that affect how quickly tooth decay develops and could put them at risk for serious ailments, such as diabetes and osteoporosis, later in life.

### The elderly

Often the elderly are at high risk for poor nutrition. Those on restrictive diets or undergoing medical treatment may be too isolated, weak or lack the appetite, time, resources or money to eat nutritionally balanced meals. This could result in tooth loss, gum disease, pain or a joint dysfunction such as temporomandibular joint (TMJ) disorder, which can impair an individual's ability to taste, bite, chew and swallow food.

### Medication

Some medications can cause dry mouth, making it difficult to chew and swallow food. This can result in a poor nutritional state that could have a negative impact on oral health. Many herbal supplements contain active ingredients that may not



safely mix with prescription or over-the-counter drugs. Some food can also interact negatively with prescription drugs.

### Restrictive diets/allergies

Those with food allergies or on restrictive diets, e.g., gluten free, as well as vegetarians, particularly vegans (consuming no food or drink of animal origin) may experience vitamin and protein deficiencies. This could put them at greater risk for tooth decay and gum disease. Choosing the right food and quantities can supply the nutrients they need. Taking a multi vitamin daily is also recommended.

## PREVENTION AND HOME CARE

- Limit consumption of food and beverages that contribute to poor oral health. (See list on reverse side)
- Eat sweets at mealtime, not as a snack, because the increased flow of saliva during a meal helps protect the teeth by washing away and diluting sugar.
- If sugar is the first ingredient listed on a product label, then the food has high sugar content. Look for other sugars on the label: corn syrup, corn sweeteners, dextrose, fructose, glucose, honey, maple syrup, molasses and sucrose.
- Check to see if liquid medicines (such as cough syrup) contain sugar. Ask a physician or pharmacist for sugar-free medicines.
- Drink water between meals.
- Prepare food in healthy ways, such as steamed, sautéed, poached or baked. Avoid fried food and limit salt intake.
- Maintain proper oral hygiene. Brush twice a day for two minutes with fluoridated toothpaste and a soft toothbrush;

- clean or floss between teeth and gums once a day; clean or scrape the tongue daily.
- Delay brushing for at least an hour after consuming acidic food or beverages. Because acid softens the tooth's surface, brushing will cause more enamel loss. Instead, rinse mouth with water, chew hard cheese or sugarless gum to stimulate saliva flow, which helps to wash away and neutralize acids. (See Fact Sheet on "Erosion")
- Visit a dental hygienist for regular professional cleanings, customized home care and to discuss nutrition and healthy food choices.

### Canada's Food Guide

(<http://hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php>)

Maintain a well-balanced diet by following Canada's Food Guide. The Food Guide stresses the importance of reading nutrition facts on labels and choosing products that contain less fat, saturated fat, trans fat, sugar and sodium.

## FOOD/BEVERAGES THAT CONTRIBUTE TO POOR ORAL HEALTH

The average Canadian eats the equivalent of 40 kilograms of sugar each year – one of the main causes of oral health problems. Some food choices are more harmful than others. Therefore, practise moderation when consuming the following:

- *Chewy, sticky foods* – Raisins, granola bars, jellybeans, caramel and honey stick to teeth.

- *Sugary snacks* – Candy, regular gum, cookies, cakes or other sweet treats contain a high amount of cavity-causing sugar.
- *Carbonated soft drinks* – Regular pop contains a high amount of sugar. Both regular and diet pop also contain acids that wear away tooth enamel.
- *Fruit drinks* – These tend to be high in sugar and acid that can damage tooth enamel and lead to decay.
- *Sports/energy drinks* – These drinks are acidic and high in sugar.
- *Acidic food and beverages* – Acids that cause dental erosion are found in numerous food and drinks such as fruit juices, ice tea, lemons, pickles, salad dressing and wine.

## HEALTHY SNACKING

Healthy nutritious snacks are good for the teeth, gums and general health. A variety of snacks and drinks low in sugar and high in nutrition are best:

- Plain yogurt, hard cheese, hard-boiled eggs
- Apples, sliced mango, raw vegetables
- Nuts and seeds
- Popcorn sprinkled with Parmesan cheese
- Vegetable enchilada, sushi
- Hummus, baba ghanouj
- Naan bread, tortilla
- Water to quench thirst between meals

## HOW TO EAT RIGHT

Because the body cannot manufacture all the necessary nutrients for good health, individuals rely on food sources and supplements. Getting the proper amount of vitamins, minerals, fats and protein is essential for the growth and regeneration of normal tissues, and for building the body's immune system.

For instance, carbohydrates, fat and protein supply the energy the body needs for tissue maintenance and repair, along with vitamins such as A, B, C, E, K and D, which are also essential for healing and quicker recovery time. Vitamin A, for example, significantly reduces the healing time for repairing inflamed tissue.

### Important minerals and nutrients the body needs to stay healthy include:

Vitamin/Mineral	Impact on Oral Health	Sources
Calcium	Essential for bone health; teeth and jaws are made mostly of calcium	Milk and dairy products, beans, broccoli, nuts and oyster
Iron	A deficiency can cause tongue inflammation and mouth sores	Red meat, poultry, fish, fortified cereals, some vegetables and nuts
Vitamin B3 (niacin)	A lack of vitamin B3 can cause bad breath and canker sores	Chicken and fish
Vitamins B12 and B2 (riboflavin)	Mouth sores can develop with insufficient B12 and B2	Sources for B12: red meat, chicken liver, pork and fish, dairy products Sources for B2: pasta, bagels, spinach and almonds
Vitamin C	Helps produce collagen, the connective tissue that holds bone together; a deficiency may lead to bleeding gums and loose teeth	Sweet potatoes, raw red peppers and oranges
Vitamin D	Enables the body to absorb calcium, which helps build strong bones and teeth	Milk, egg yolks, fish and limited amounts of sunshine
Vitamin K	Helps synthesize three proteins in bone needed for strength; also noted for its role in blood clotting	Broccoli and leafy greens
Phosphorus	Needed for healthy bones and teeth, energy metabolism and acid base balance in the body	Milk, grains and lean meats
Zinc	Promotes strong bones and helps develop and maintain collagen	Seafood, meat and liver
Magnesium	Important for bone formation	Green vegetables, legumes and nuts
Potassium	Helps promote good mineral density and reduces calcium loss	Fruits and vegetables

As professional health-care providers, dental hygienists are primarily concerned with promoting good oral health. Dental hygiene is among the largest of the regulated health-care professions in the province. In Ontario all dental hygienists are registered with the College of Dental Hygienists of Ontario, which regulates the profession to ensure the public receives safe and ongoing comprehensive oral care.

VFS19.1

© The Ontario Dental Hygienists' Association