The parents complete guide to 
Dental Health Care for Children 
from newborn to tween

Choose to be, Cavity Free!
OUR STORY

Choose to be Cavity Free.

Tooth decay is the most common childhood disease in North America. It is six times more prevalent than asthma. Presently 35% of all three year olds, 48% of all four year olds and about 75% of all teenagers exhibit tooth decay. In Canada millions of school hours are lost each year to dental related illness.

The fact that dental decay is an infectious, transmissible, diet dependent disease is not widely known. Indeed children’s teeth are at risk long before they have been exposed to their first piece of candy.

Parents incorrectly assume that children get cavities because of sloppy or inconsistent brushing and flossing habits. To a degree this notion is true, but what is not widely known is that tooth decay is a disease called caries that is caused by a specific family of bacteria called S. mutans. This process begins with the colonization of baby teeth by these bacteria, and their use of sugar in the mouth to produce acids. These acids dissolve the enamel, by dissolving the calcium in teeth. As these bacteria multiply they form a slimy yellowish film called plaque, trapping even more enamel dissolving acid. Together these two processes rob teeth of calcium and the cavity forming process begins.

Traditionally dentists have started to intervene at this stage when cavities had already formed. Caries or tooth decay has been managed for years with a surgical approach of filling cavities with little regard as to the specific germs that caused them.

What if however we strived to eliminate the cause of this disease instead of addressing its symptoms?

Newborns enter this world without any S. mutans in their mouths. However by the age of 12-19 months 22-25% of them harbor the bacteria. The presence of S. mutans at age 1 is the most effective predictor of caries by age 3.
Studies have shown that mothers are more prone than fathers in infecting their children with these cavity causing bacteria, typically before the age of three. This occurs by the transferring of bacteria through saliva from mother to child. Kissing, cuddling, shared cooking utensils, blowing on hot foods, the use of common toothbrushes all can be involved in the dissemination of these harmful bacteria. Once colonized with S. mutans, children will always be prone to tooth decay. It is an old wives' tale that certain children inherit “soft teeth” from a family member. What they are really inheriting is cavity producing bugs. This also explains why some children with decent brushing habits are still getting cavities.

A part form the type of bacteria a child harbors, another very important part of the tooth decay puzzle is diet. The amount, acidity, and even more importantly—the frequency of carbohydrates in the diet directly influence both the growth of the bacterial colonies and the “enamel dissolving effect”.

Good nutrition is not only important at the local/oral level. Junk food is known to promote higher incidences of obesity, diabetes, attention deficit disorder, depression, cardiovascular disease and even some cancers in children and adults. Junk food along with fast food has supplanted healthy eating. Indeed the nutritional crisis is so dire that authorities warn that if we don’t change our dietary habits soon, one in three children born after the year 2000 will develop diabetes. Today many pediatricians are predicting that our children will be sicker and have a shorter life expectancy than us, their parents.

Today’s processed food may be long on energy but very short on its medicinal or health promoting qualities. There is no substitute for real wholesome foods.

Our approach at Kids Dental may be different than what you are traditionally used to, as it aims at promoting the principles of dental wellness through advanced prevention and natural nutrition. Indeed the old adage “an ounce of prevention is worth more than a pound of cure” has never been truer.

The Kids Dental approach to dental care was founded by Dr. Ernest Cholakis, a recipient of Her Majesty's Golden Jubilee Medal for his contributions to dentistry and his community. He has de-emphasized the drill-fill approach for a “wellness” strategy that focuses on advanced prevention and natural nutrition. As a dental student he received the Preventive Dentistry Award for his work in dental wellness. In addition his own life experience both professionally and personally with his dentist-wife and four daughters, has served as his inspiration to not only develop a better way to medically deal with dental disease but to instill a culture ordered around the higher ideals and values of prevention and natural nutrition.
At Kids Dental, we work very hard to make a visit to the dentist as easy as possible for you and your child. Our team of dental and health professionals deliver quality service in a fun, energetic environment that is centred on the needs of younger patients. While we're having a great time doing our work, we take our commitment to helping "our kids" become cavity free very seriously. We take great pride in our dental "home" and invite you to join us in celebrating a lifetime of smiles.

Leading the charge is: Dr. Carla Cohn, a general dentist, who restricts her practice to children with an exceptional background in comprehensive care, Dr. German Ramirez, DDS(Col.), Dip Pedo.(M ex.), M DSc(A us), PhD(A us) - Dentist - with a specific area of interest in Pediatric Dentistry, Dr. Karina Gamboa, DDS(M ex.), Dip. Pedo.(M ex.) - Dentist - with a specific area of interest in Pediatric Dentistry; Dr. Billy Wiltshire, an Orthodontist and world renowned academician and educator and Ms Phyllis Reid-Jarvis, a dynamic Registered Dietitian.

Our whole team along with many other collaborators have taken enormous pride in Kids Dental’s potential and derive great personal satisfaction in extending their invitation of “celebrating a lifetime of healthy smiles” for all children.

Our Dental Home

In order to accomplish our mission of happy, healthy, cavity free children we have created a “dental home” for you and your child. In a warm and welcoming setting, reminiscent of a home than a dental clinic, we are striving to break down the barriers sometimes associated with the traditional dental visit.

Children who have a dental home are more likely to receive appropriate preventive and routine care. The concept of the “dental home” is derived from the American Academy of Pediatrics’ concept of the “medical home.” This concept states that the care of infants and children ideally should be accessible, continuous, comprehensive, family centered, coordinated, compassionate, and culturally effective.

The child’s first visit establishes the dental home. This provides the opportunity to implement preventive health practices and reduces the child’s risk for preventable oral disease.
A Kids Dental Home provides the following:

- An accurate risk assessment for oral diseases and conditions
- The utilization of Previstat—the most advanced individualized preventive dental health program in accordance with accepted guidelines and periodicity schedules for dental health
- Anticipatory guidance about growth and development issues (e.g., tooth eruption; thumb, finger, or pacifier habits; feeding practices)
- A plan and resources for emergency dental trauma
- Information about proper care of the infant’s or child’s teeth and soft tissues
- Information about proper nutrition and dietary practices utilizing our in-house registered dietitian Ms. Phyllis Reid Jarvis.
- Collaboration with other dental specialists, such as oral pathologists, orthodontists, endodontists and periodontists, within our dental home when required.

Grinich Village

We want to engage your youngster in a wondrous and magical journey of discovery. Children retain information best when they are able to apply the concepts they are taught through play. Through Grinich Village, a unique health discovery center, we plan on engaging your child’s imagination and have him/her experience first-hand the values of wellness. From creating unique masterpieces on the art table to discovering the nutritional value of foods at the market, Grinich Village is an exciting and whole new way of experiencing health education.

Together we are as Strong as our Strongest Link

Our goal is to be a trusted parenting resource—that is why we offer a comprehensive guide as well as supportive material for your use. We also want to be the place you come back to when you have questions and concerns. For example whether on the website at kidsdental.ca, or in a Kids Dental Home Center we’re committed to helping parents find the information, support and encouragement they need.
INTRODUCTION  |  Chapter 1

First, by making the dental experience fun and magical, children play to learn about their health. This philosophical distinction is very important because you and your child will be exposed to a very creative and imaginative educational process that believes that we can do much to enrich your child’s development with regard to preventive health. Providing age appropriate activities, books, crafts and toys can help create a sense of learning and accomplishment that reinforces a wellness lifestyle.

Second, our clinical model emphasizes caring and collaboration. We are an interdisciplinary clinic of general dentists, pediatric dental specialists, orthodontists, periodontists, hygienists, registered dietitian, dental assistants and administrators all working together with you and your child in a single facility. The health care advantages of networking together in a single facility are enormous because of the immediate access to expertise, improved lines of communication, superior efficiency, and the enhanced opportunity for learning, research and innovation.

Third, by implementing best practices from groundbreaking research, that has identified the tooth decay process (caries) as a chronic, contagious, transmissible disease. Of the possible 400 different species of bacteria that naturally reside in our mouth, only S. mutans and a few others secrete acids in sufficient quantities to dissolve tooth structure to form cavities. These specific bacteria are usually passed from the primary caregiver (usually mothers) to babies in the first three years of life. Hence tooth decay patterns are consistent from generation to generation as infected mothers contaminate their babies with S. mutans by kissing, cuddling and sharing of eating utensils. In one study, researchers observed that 89 percent of children infected with S. mutans by age two had developed tooth decay by age four. Early screening for S. mutans can flag those children and mothers who are at heightened risk of developing caries so that antibacterial and preventive medications can be prescribed to diminish the risk. This revolutionary approach represents a tremendous advancement in preventive dentistry.

Traditionally dentists have managed tooth decay with a surgical approach of filling cavities with little regard to the specific germs that caused them. The Kids Dental approach is different. It emphasizes a “medical” strategy that focuses on prevention. It addresses for the first time that tooth decay is an infectious disease.
Advanced Prevention

The Kids Dental way of treating dental disease represents the inclusion of new strategies for more individualized care. It is based upon a more contemporary understanding that tooth decay is a chronic transmissible disease. Tooth decay is a disease of imbalance between de-mineralization and remineralization driven by acid producing bacteria in plaque. We know that the main offender in the bacterial world is a specific bacterium called streptococcus mutans and that it’s spread from one generation to the next through parent-child interactions. We have observed that many children present with no cavities while others show extensive decay (the sad end point of the unchecked cavity forming process). The center of our clinical philosophy is focusing on the full spectrum of the dental disease process, not the end product of treating holes in teeth.

To facilitate this goal we have developed **Previstat®** – a risk assessment model that identifies a child’s susceptibility to tooth decay and customizes a tailored preventive program.

If your child is within one of the high risk groups listed below it is imperative that Previstat (an aggressive anticipatory guidance and intervention program) be implemented as soon as possible. High risk groups include:

- Infants with special care needs
- Infants with mothers with high tooth decay rates
- Infants with identifiable tooth decay, plaque, demineralization and or staining
- Infants who sleep with a bottle
- Late order offspring
- Infants with poor dietary habits
Dental wellness is a vital component of overall infant health. Kid’s Dental is dedicated to the principle of lifelong dental health through prevention and well being, showing that the right dental and nutritional decisions can have a profound effect on a child’s life and future.

Key elements in promoting dental wellness include:
- Education
- Fun
- Communication
- Early intervention
- Cavity risk assessment
- Anticipatory guidance
- Lifestyle commitment to good nutrition
- Sugar load analysis

In spite of all our modern technological advances many children are still affected by dental caries. Caries in baby teeth is the most common health problem affecting young children today. Approximately 50% of children ages 2 through 9, have dental caries and 92% of children between the ages of 8 to 18 demonstrate moderate gum inflammation. Tens of thousands of school days are lost each year as a result of dental disease and injuries.

The consumption of sugar keeps increasing with the average person now consuming 155 pounds of sugar per year. Good nutrition is essential for both general and dental health. Good eating habits and food preferences are established early in childhood. Poor nutrition is the leading cause of obesity which is reaching epidemic proportions with a correlating increase in the incidence of juvenile diabetes and heart disease. Sadly most children crave sugar and other junk food that they see in TV commercials. Various food processing companies focus their advertising on children, who do not have the critical skills to make an informed value judgement or understand the companies’ profit motives.
At Kids Dental we recommend that a child's first oral health visit take place no later than 12 months of age, or shortly after the eruption of the first baby teeth. This is an ideal time for our team to evaluate your child's oral, dental and nutritional health, as well as to diagnose any problems which may exist.

During this first visit we will:

1. Inquire about your child's medical history.
2. Learn about your child's dietary and feeding habits.
3. Assess the need for fluoride supplements.
4. Evaluate the child's oral hygiene.
5. Examine the mouth for dental caries or other problems.
6. Perform a caries risk assessment.
7. Implement age appropriate oral hygiene techniques.
8. Introduce the concept of wellness as a lifestyle choice.
10. Prepare to provide preventive, interceptive or restorative services.
Examination of the infant 6 months after the first tooth erupts and at no later than 12 months of age, allows our team to intervene before oral health is compromised by deficient oral hygiene or improper feeding habits.

During these first visits early signs of childhood caries such as “white spot” lesions at the necks and inside surfaces of the upper front teeth can also be detected. These are white, chalky areas on the front teeth, close to the gum line. These decalcifications, caused by acid producing bacteria, directly precede irreversible loss of tooth structure.

Oral hygiene techniques may be modified depending on your child’s age. For small infants, the gums and teeth need to be cleaned once or twice a day with a piece of clean gauze. Infants should be introduced to the toothbrush around the age of one. Around 2 years a small pea-sized drop of children’s toothpaste can be applied to the toddler’s brush.

Brushing baby teeth can be quite challenging for new parents. Some infants and toddlers may refuse to let parents brush their teeth. Games of sharing the duties by taking turns with rewards often work. The initial brushing attempts need only last a few seconds.

The good news is that our mission driven approach is easily achievable. By providing a healthy diet, minimizing the consumption of candies, cleaning your child’s teeth at least twice a day, and seeing us regularly, your child can have a happy, healthy smile!
The Mouth

The more you understand about the mouth and your child’s oral health the better you’ll be able to collaborate with your dentist to achieve your mutual goals of complete dental health and wholeness for your family.

The mouth serves as the first step of the digestive process by cutting, tearing and grinding food. The mouth is the only part of the digestive system with nerve endings that respond to taste, pain, pressure and temperature.

The tongue aids in swallowing and talking. The small projections on the tongue are called papillae. Some of the papillae on the tongue serves as taste buds.
There are 20 primary teeth. They erupt, starting with the lower front teeth, around six months of age. The last primary teeth to erupt are the second molars, which present around 20-24 months of age.

Usually girl’s teeth erupt earlier than boy’s teeth and lower erupt earlier than corresponding upper teeth.

Primary teeth are important to keep healthy and in place because they are necessary to maintain the space for the permanent teeth that will be replacing them.
Permanent teeth follow the same basic sequence of eruption as primary teeth. Adults have a total of 32 teeth, including wisdom teeth.

The first permanent teeth usually erupt between six and eight years of age.

A primary tooth is lost prior to the eruption of each tooth except for permanent molars. These molars do not replace any primary teeth as they come in further back in the mouth than any primary teeth.

The permanent teeth are meant to last a lifetime.
The Tooth

**Crown:** The portion of the tooth above the gumline.

**Neck:** The intersection between the crown and root of the tooth.

**Root:** The portion of the tooth that extends into the jaws. The root forms the anchorage component of the tooth.

**Enamel:** Enamel forms the outer shell of the tooth above the gumline. Enamel is the hardest substance in the body, capable of withstanding unbelievable forces. Hard but brittle enamel does not heal like a broken bone. Tremendous care should be exercised in maintaining the health of this tissue.

**Cementum:** Cementum forms the outer coating of the root of the tooth. Its softer more porous surface helps anchor the tooth to the jaw bones.

**Dentin:** Dentin is a bone like substance that forms the substructure of the tooth.

**Pulp:** The pulp contains blood vessels, nerves, and connective tissue. It is located beneath the dentin and extends through the root to the middle portion of the crown.

**GUMS**

**Periodontal Ligament:** The PDL consists of connective tissue fibers that attach the root to the alveolar socket. The built in shock absorbing characteristics of this tissue allow the tooth to withstand the exceptional forces during biting and chewing.

**Alveolar Bone:** The hard tissue that forms the jaw bones.

**Gingiva:** Commonly referred to as the gums. It covers the bone and hugs the necks of the teeth.
Incisors:  
These single rooted teeth are the front teeth in the upper and lower jaws. They are broad and flat with thin edges. These teeth are good for cutting. Typically there are four upper and four lower incisors. The pair at the center are called centrals and adjacent to them are the incisors called laterals.

Canines:  
Also called cuspids these single rooted teeth are adjacent to the incisors and form the corners of the arch. There are four canines. These teeth are thick and like an ice pick come to a point tearing and ripping foods that may be tough.

Premolars:  
Adjacent to the canines in the permanent dentition are two premolars (also called bicuspids) for a total of eight teeth. These teeth are a cross between canines and molars in that they have two broad points for tearing but also present with a broader chewing surface for chewing and grinding. Upper first premolars typically present with two roots and the second with one root. Lower premolars typically present with one root.

Molars:  
Adjacent to the premolars are three molars for a total of twelve. The first molar also called the six year molar presents at six years of age. The second molar also called the twelve year molar presents at approximately twelve years of age. Finally the third molar also called the wisdom tooth are the last teeth in the mouth and present if there is enough room between eighteen to twenty-one years of age. These multi-rooted teeth with broad chewing surfaces are ideal for crushing, grinding and chewing foods.
Tooth Numbering

The International Numbering System is a standardized approach for referencing particular teeth. In this system teeth that should be present are numbered according to location and sequence. The first number corresponds to the quadrant location with 1 representing the upper right, 2 the upper left, 3 representing the lower left and 4 representing the lower right. The second number represents the sequence of the teeth from front to back. Thus, 1 is the front central incisor, 2 the lateral incisor, 3 the canine, 4 the first premolar, 5 the second premolar, 6 the first molar, 7 the second molar and 8 the third molar. As an example tooth number 33 is the lower left canine and tooth number 15 is the upper right second premolar.
Caries

Caries or tooth decay can start at any age.

The required elements for decay are susceptible teeth, bacteria in the mouth, and certain foods which contain sugar. The tooth decay process begins with a soft, sticky layer of bacteria called plaque. Within the plaque matrix are particular bacteria that metabolize the sugar and starches in the foods we eat to produce acids. The plaque holds this acid against the teeth. Each time this acid is produced it attacks the tooth enamel for about 20-30 minutes. These chronic repeated attacks begin to break down the enamel to create a cavity. Once this occurs, the cavity spreads inward to the center of the tooth called the pulp. At this point an abscess can form at the end of the root that causes severe pain. Treatment is needed to prevent further decay or this destructive process will result in tooth loss. Warning signs of tooth decay are:

- A tooth sensitive to heat, cold or sweets
- Pain during chewing
- Swelling or drainage at or below the gum line
- A white spot on a tooth
- A dark spot on a tooth
- Persistent discomfort in the mouth or sinus

WHAT TO LOOK FOR:
Check for presence of tooth defects - a risk for decay
Early Childhood Caries (ECC)

- A severe rapidly developing form of tooth decay in infants and young children
- Can effect all teeth however classically found in the front incisors which erupt first, at about 6 months, and are least protected by saliva

Formerly called:
- Baby bottle tooth decay
- Nursing caries

Severe ECC may lead to...

- Extreme pain
- Spread of infection
- Difficulty chewing, poor nutrition, below average weight
- Extensive and costly dental treatment
- High risk of dental decay and crooked bite in adult teeth
- Poor self-esteem, behavioral and social interaction problems
- Speech development problems
- Lost school days and difficulty learning
How teeth develop decay

- Dental decay is the most common chronic disease of childhood

  6% of 1 year old
  22% of 2 year old
  35% of 3 year old
  48% of 4 year old

Bacteria + Food + Tooth = Decay
Periodontal Disease

Periodontal disease or gum disease is the leading cause of tooth loss in the adult population.

Although most tooth loss from periodontal disease occurs in adulthood, early signs of the disease may be witnessed in adolescents. Periodontal disease attacks the gums, bone, and other structures that hold the teeth in the jaws. The toxins produced by bacteria in plaque inflame the gums, making them swollen and tender. Prone to bleeding, the tissues worsen as the accumulating plaque colonizes on the teeth and hardens into calculus (tartar) that collects under the gum line. Calculus cannot be removed by brushing and flossing. Only scaling by the hygienist or dentist can remove calculus. As plaque and calculus continue to form, the gums become red, swollen, tender, and prone to bleeding. This condition known as gingivitis can be reversed by thorough plaque removal and regular periodontal maintenance by the hygienist.

In many cases untreated gingivitis can lead to a more severe condition called periodontitis. Although gingivitis may progress to periodontitis it is not clearly proven that periodontitis is always preceded by gingivitis. In the most common form of destructive periodontal disease the gums pull away from the teeth, forming pockets between the teeth and gums. These crevices fill with bacteria, and become deeper. The gums, bone, and other structures supporting the teeth are seriously compromised and the teeth may pathologically drift and loosen. Surgery may be needed to save the teeth or they may have to be extracted.
Current research demonstrates that periodontal disease is a widespread disease that may not necessarily progress slowly and can eventually result in tooth loss.

Dental researchers now believe the content rather than the amount of plaque may play a more important role in the development of the disease process. It has only been in the past few years that researchers have been able to identify the specific microorganisms in plaque associated with various forms of periodontal disease. Other changes in thinking are that the disease is not generalized or slowly progressive. A patient may have one or more active sites, with the rest of the mouth showing no signs of periodontal disease. The disease may also move in bursts of activity rather than progress at a continuous pace. These new findings are challenging the profession to find new ways to diagnose and treat periodontal disease.

Other factors that may contribute to the progression of periodontal disease include smoking or chewing tobacco, metabolic diseases like diabetes, hormonal changes ranging from puberty to pregnancy, harmful habits presenting as clenching, mouth breathing and grinding, and finally growth and development processes such as misaligned teeth and a bad bite.

**Warning signs of gum disease include:**

- Gums that bleed on brushing and flossing
- Red, swollen or tender gums
- Gums that have receded from the tooth structure
- Suppurative exudate (pus) discharging from the gums
- Teeth that are loose or drifting
- Changes in the fit of the bite
- Persistent bad breath or a sour taste
Juvenile Periodontitis

Juvenile Periodontitis is a rare form of periodontal disease that affects adolescents and young adults.

Here the mouth appears healthy with little inflammation or discomfort. Loose teeth are the first sign of trouble. X-rays will reveal that the vital bone around molar teeth and upper incisors has been destroyed. Treatment may include surgery and antibiotic therapy by the Periodontist team member at Kids Dental.

Malocclusion

Malocclusion refers to the irregular way teeth or jaws fit together. The causes of malocclusion can be inherited or acquired. Tooth size, jaw size, cleft palate, congenitally missing teeth, and other abnormalities are examples of inherited causes. Acquired causes include premature loss of teeth, mouth breathing and other harmful habits such as tongue thrusting and thumb sucking. If left untreated, malocclusion may cause abnormal pressure on the teeth, resulting in uneven wear and/or periodontal disease. Effective plaque removal is difficult to practice when the teeth are not in proper alignment. Malocclusion can also lead to digestive disorders caused by improper chewing. Speech, social and emotional problems may result if the malocclusion is not corrected. The treatment of malocclusion is provided by the Orthodontist team member at Kids Dental, a dentist who has additional training in this area of dentistry.

Oral Cancer

The most common sites of oral cancer are the tongue, floor of the mouth, lips, soft palate and tonsillar area. Since oral cancers vary widely in appearance, they are often difficult to recognize. This is why it is important to have regular check-ups and perform monthly self exams. The warning signs of oral cancerous lesions are:

• Any swelling, lump or growth located in the head or neck area.
• A sore that does not heal after two weeks
• White or red patches in the mouth or on the lips
• Repeated bleeding from the mouth or throat
• Difficulty in swallowing or persistent hoarseness
• In leukemia the symptoms are red swollen gums that are prone to bleeding

Early detection of oral cancer is critical. Regular screenings are performed at every check-up appointment by the Dentist.
Caring for your child's teeth before birth

Eating Right

During the 9 months of pregnancy, the baby depends entirely on the mother for nourishment.

Teeth and bones require calcium, phosphorus and other vitamins that can be obtained from the four food groups. Obtaining a balanced diet throughout pregnancy will ensure the baby is receiving essential nutrients for growth and development. Expectant mothers should consult with their obstetrician or a dietician to ensure that a healthy diet is maintained throughout pregnancy.

Specifically, diets should be analyzed to determine if the proper amount of calcium, phosphorous and vitamins A, C, and D are being ingested. Calcium and phosphorous are major mineral components of teeth. Vitamins C and D aid in the absorption and deposition of calcium and phosphorous. Vitamin A is required for the differentiation and maintenance of the cells that form enamel and dentin. Both vitamins A and C are needed for healthy gingival tissues.

Folic acid - vitamin B9 contributes to a healthy pregnancy. Many authorities advocate that mothers-in-waiting take 0.4mg of folic each day, starting 3 to 4 months before pregnancy begins. The current thinking believes that folic acid supplementation protects the developing baby against various birth defects of the spine and brain, called neural-tube defects. The first four to six weeks is extremely important in helping to prevent cleft palates and lips.

In conclusion, be careful with vitamin, mineral and herb supplementation. Don't self medicate with large or unusual combinations because birth defects can result. Eat a well-balanced diet and take one multivitamin or a prenatal vitamin each day and consult your obstetrician. At Kids Dental, prenatal counselling is an important priority, because it improves the oral health of mother and child. Maternal diet, self-care, and lifestyle can affect the offsprings oral health.
Maintaining Good Oral Hygiene

Expectant mothers should keep their regular dental schedule. Meticulous oral hygiene will help to produce a healthy and happy baby.

An important link has been found between maternal gum disease and premature low birth weight babies. For example, oral infections such as periodontal disease can cause an increase in the level of prostaglandin, a maternal hormone. Prostaglandins are also a powerful hormone that can be used to induce labor. Thus periodontal disease in an expectant mother can cause an increase in the level of prostaglandin and trigger premature delivery.

Things That May Happen to the Expectant Mother That Affect the Baby’s Teeth

A fever or virus or any sort of infection during pregnancy could affect the quality and quantity of tooth structure, that is forming in the fetus. The natural balance of calcium and phosphorus in the mother’s bloodstream becomes distorted and can interfere with tooth formation until the mother becomes healthy again.

If a baby is born before term, there is a possibility that the child’s teeth will be affected. Full-term babies are found to have fewer cavities than preterm babies. This is likely due the fact that the teeth are likely mineralizing just around the time of birth and are most susceptible to decay.
Caring for your new baby

What to do Before the Teeth Come in

One of the most important things to do as a parent is to keep good oral hygiene for their child and themselves.

Babies are not born with bacteria in their mouths. In fact, bacteria are transferred to the baby by everyday contact such as cuddling, kissing, feeding and playing. Therefore, parents should be very mindful to keep excellent oral hygiene and reduce the number of microorganisms in their own mouths.

Sucking Habits

It is totally normal for your baby to suck on a thumb, finger or pacifier. It is a comforting and healthy habit that originated as a natural reflex in the womb. Usually by the age of 4 to 5 years most children overcome this habit, however in other instances they may not and this can lead to:

- Protruding upper front teeth
- Misalignment of the upper and lower jaws
- Malformation of the upper palate

Remember that the amount of damage relates to the frequency, intensity and duration of the habit. Stress is often the underlying reason for continuance of this habit. When a parent discovers why the child is sucking, a solution can often be formulated to address it. When the stressor is eliminated the child is more open minded and cooperative in giving up the habit.

Concerning the issue between the thumb versus pacifier debate, Kids Dental recommends the pacifier. The pacifier habit is easier to break because parents can control the timeline. In addition the pacifier is a good alternative to the comfort bottle of formula, milk, or juice that parents give their babies at bedtime. Going to bed with a bottle is definitely a bad idea as it can result in severe tooth decay.

In conclusion for children after the age of 6 that continue to suck it is important to note that something may be bothering them. Identification of the stressor is the first step in helping the child deal with the problem. Sucking helps children deal emotionally with many complex issues and in many instances restoring a dental problem is easier than addressing an injured psyche.
Pacifier Tips
• Never dip the pacifier in anything sweet like honey.
• Never attach a pacifier to a cord, string or a ribbon for fear of strangulation.
• Never replace a bottle nipple for a pacifier.

Discard pacifiers that demonstrate signs of wear or breakdown. Bulbs that are swollen, cracked or sticky should be discarded. The pacifiers shield should be wider than the baby's mouth to prevent choking. Finally never leave a child unattended with a pacifier or let an infant sleep with a pacifier.

Nursing and it's Effect on Baby Teeth
Nursing is a way of educating the baby's lips, cheeks, tongue and jaw to develop more mature ways of handling fuel for the body.

Dental Medications and Breast-feeding
A nursing mother may be concerned about the effects of medications on her infant's health. There may be risks to a baby's health when a mother takes certain medications as most medications appear in the breast milk a few hours after taking them. It is important for the nursing mother to discuss the risks and benefits of each medication with the dentist or physician before using it.

The amount of medication appearing in breast milk depends on the drug's characteristics as well as the characteristics of the mother's breast milk (i.e. rate at which milk is produced, blood flow to the breast). A nursing infant will receive approximately 1% of the mother's drug dose.

Some tips to follow to minimize the amount of medication in breast milk:
1. Try breast- feeding immediately before or shortly after taking the drug
2. Maximal doses of drugs appear in breast milk one to three hours after ingestion

The following dental medications are compatible with breast-feeding and are considered safe:
• Acetaminophen
• Amoxicillin
• Acyclovir
• Bupivicaine
• Cefazolin
• Clindamaycin
• Codeine
• Epinephrine
• Erythromycin
• Fentanyl
• Fluoride
• Ibuprofen
• Levonordefrin
• Lidocaine
• Mepivicaine
• Morphine
• Prednisone
• Prilocaine
• Streptomyacin
• Tetracycline
When do the First Teeth Appear?

The first teeth generally appear between from 6 and 14 months.

Baby teeth will appear very white like shiny perfect pearls. The first teeth to appear will either be the lower or upper front teeth called the central incisors. The next teeth to present, erupt right beside the central incisors and are called the lateral incisors.

The eruption of teeth in your infant will vary and may be 10 to 12 months from the average ranges and still be normal. Every baby's teething schedule will differ. Some children will get their teeth earlier while others later. The chart on this page is an average range of eruption of baby teeth. The significance of early or late eruption may mean that those children whose teeth erupt later will have a slightly higher resistance to decay than those children whose teeth erupt earlier. This is explained by the fact that teeth that stay under the gums longer will pick up the fluoride in the water supply as well as other sources and become more resistant to decay.

The progression of eruption of your baby's teeth should be monitored as your infant is growing. By the time your child is 3 years of age, there may be certain things you may want to consult with us about if there are too few teeth in the baby's mouth. An examination by the dentist will reveal if they are just late coming in or if the child may have an inherited condition. Yellowish-brown stained soft teeth are one of the first signs of decay. These teeth should always be saved as the baby teeth help to keep space for the permanent teeth to erupt in.

Most babies will have 12 teeth by the time they are 18 months. By the time they are 3, 20 teeth should have appeared. Any missing or extra teeth can lead to malocclusions and should be looked at by your baby's dentist. In fact, a baby's first dental visit should begin 6 months after the eruption of the first tooth, or around 1 year of age.
Cleaning and Caring for the Infant Teeth

A baby's mouth will form plaque from bacteria and food in the mouth. Plaque is a film containing a sticky substance that coats the teeth and sets the stage for decay and gum disease. Bacteria use food to produce an acid that demineralizes the tooth to cause decay and to harm the gums. Therefore regular cleaning of your infant's gums and teeth helps to ensure a healthy and happy baby. Before teeth erupt, clean your baby's mouth and gums with a soft cloth or infant toothbrush. This helps to prepare your baby for the tooth cleaning that is to come. Once your infant's teeth begin to erupt into the mouth (as early as 4 months old), they should be cleaned twice a day, preferably after breakfast and after their last meal in the evening.

Teething

Teething can vary in every infant depending on the age of eruption of the primary teeth. Teething is often associated with daytime restlessness, an increase in amount of finger sucking, an increase in drooling and possibly some loss of appetite. The gums may appear red before the emergence of the tooth and cause a temporarily painful condition in the baby. However, this pain should subside after a few days.

What can be done about pain associated with teething?

1. A cleaned, chilled teething ring will help alleviate some of the pain associated with teething.

2. A children's Tylenol elixir may help alleviate the pain and inflammation.

Please note: Benzocaine ointment should not be used as it may cause numbing of the throat and cause your baby to choke if too much is used.

Parents should always be suspicious during teething. If the baby has symptoms of fever, nausea, congestion, don't assume the baby is just teething. Check with your pediatrician for other possibilities.
Caring for your child's teeth from babyhood through adolescence

Important Milestones in The Growth and Development of Your Child's Teeth

Age 1
By the first birthday, the bottom and top front teeth have come in. The first primary molars are about to appear and the crowns of the second primary molars have formed. The biting surfaces of the first permanent molars are being formed and the first permanent incisors are hardening. The jaw is increasing in size in both height and width as the cartilage and bones are growing.

Age 3
By the child's 3rd birthday, almost all the primary teeth are present or accounted for. The teeth should fit together at this stage which is the start of a developing occlusion or bite. The crowns of the first permanent incisors are almost complete. The crowns of the first permanent molars are complete. Mineralization of the premolar crowns are starting and the permanent canines are about two-thirds complete. The roots of all the primary teeth are complete.

Age 5
A lot is going on in your 5-year-old. Breakdown (resorption) of the roots of baby incisors is taking place which allows the adult incisors to come in. When baby teeth are ready to come out, they will at first feel loose and eventually fall out on their own. The baby tooth will appear as if it did not have roots, however this is the process of resorption taking place. The roots of the permanent first molars and permanent incisors are beginning to mineralize at this time too. On occasion the adult teeth erupt adjacent to the baby teeth and this may result in two rows of teeth. A consultation with your dentist at this time is important to determine the status of the baby teeth.

Life Cycle of Primary and Permanent Teeth

Primary Teeth

Permanent Teeth
Age 6
This is a time of great change. Growth in the skull and upper part of the face is almost complete at this time. However, growth in the lower part of the face is just beginning. It's at this time that your child will start to lose his or her "baby face."

Your first grader will have their first permanent molars making their way into the mouth. Usually these teeth erupt without much fuss. The front baby teeth are loose around this time allowing for the permanent incisors to grow through the gums. The roots of the primary teeth continue to resorb and the crown of the permanent canine is fully formed.

Age 10
Many changes have already taken place in your child's mouth. The permanent incisors are by now fully into your child's mouth and the primary molars are beginning to loosen and fall out. The permanent molars are in position and the second permanent molars are beginning to find their way into the mouth. The roots of the baby canines are resorbing to make way for the permanent canines. The upper canines are one of the last teeth to erupt into the mouth. These eye teeth help to close the space between your child's upper front teeth.

Age 13
Your child is now 13 and has all of his or her permanent teeth in with the exception of the last molars, often called the wisdom teeth. The bones and jaws are reaching their adult dimensions and strength. There are 32 teeth in the mouth including the wisdom teeth still under the gums.
Caring for teeth of a special needs child

A healthy smile is important to a special needs child. Starting early preventive care for your special needs child is an important aspect of your child's health.

Dental disease is preventable and your child can benefit from a collaborative approach between you, your child and our team at Kids Dental. A first dental visit by your child's first birthday is a good time to start preventive dental care.

Children with special needs are very diverse in their dental health. Some may have the same dental needs as the rest of the population while others may have disabilities or conditions that increase their risk for various oral health problems.

One child may have a condition that interferes with their ability to brush and floss effectively thus increasing their risk of gum disease and tooth decay. Another child may have health conditions that require special medication or diet which may be destructive to their oral health. Therefore, your child will benefit from early preventive care at our office through effective brushing and flossing, adequate fluoride, sealants, good nutrition and regular dental visits.

Home Care Tips for Your Child

1. Brush at least twice daily, the most important times being after breakfast and before bed.
2. Floss once a day.
3. Use a small pea-size amount of toothpaste with fluoride to avoid fluorosis.
4. Encourage healthy snacks with positive reinforcement.
5. Use a toothbrush with soft bristles to avoid trauma.
6. Consider electrical toothbrushes when brushing effectively becomes too difficult for your child.
Prevention and wellness is key to keeping your child healthy and cavity free. Practicing good oral hygiene from birth to adulthood is one of the most important habits to develop.

Good habits promote healthy teeth, gums and overall wellness. Daily preventive care incorporating brushing and flossing will help prevent more difficult problems that become more painful and expensive for the child. An ounce of prevention is worth its weight in gold.

Regular check-ups at Kids Dental are an important component of preventive care. Here our team of health care providers can provide your child with the professional care they need. In between dental visits, it is important to include the following home care activities for your child preventive program.

1. Brushing thoroughly twice a day and especially before bedtime.
2. Flossing daily.
3. Eating a well balanced diet and limiting harmful snacks between meals.
4. Using Canadian Dental Association approved dental products containing fluoride.
5. Rinsing with fluoridated mouthrinse as prescribed by the dentist for patients with high caries risk.
6. Having professionally applied fluoride varnish for high caries risk dentitions.
7. Rinse with water or chew a xylitol chewing gum after eating when it’s not possible to brush and floss.

To keep teeth and gums healthy, we must first understand what is the cause of tooth decay. Seeing the whole picture allows us to control all the factors involved in tooth decay and gum disease.
What is Plaque?

Plaque is the culprit behind tooth decay. Plaque is a sticky transparent film that coats the teeth and is formed continuously, 24 hours a day.

How does plaque stick to teeth when we have the action of the tongue, cheeks and saliva in our mouth to wash away plaque? Plaque is made up of millions and millions of bacteria that secrete a sticky substance called dextrans. Bacterial dextrans are a type of “bacterial glue” that helps bacteria adhere to the teeth. Dextrans are so adherent to teeth that rinsing with water will not eliminate the plaque off our teeth. However, the story doesn't stop there. Bacteria use dextrans to help trap the food we eat to use as reserve sources. When there is no food available, bacteria then digest some of the dextrans to tie them over until the next meal is consumed. Plaque is thus a combination of bacteria, dextrans and bits of food trapped within it.

Knowing all this we ask, what causes a cavity? When bacteria digest food they produce an acid that is trapped in the plaque and is in continual contact with teeth. The acid demineralizes the tooth and weakens the enamel crystals of the tooth. If this is allowed to progress, eventually a cavity forms on the tooth.

Plaque not only causes cavities, it can lead to gum disease. Plaque is an irritant to the gum tissue and when left undisturbed can lead to bleeding and irritated gums. Plaque left undisturbed will invade the space between the tooth and the gum tissue called the pocket. As the plaque creeps deeper into the pocket, it invades the supporting structures around the tooth and causes inflammation, redness and puffiness. If this situation is allowed to continue, the foundation around the tooth is lost and eventually the tooth can fall out.

Plaque however is not all bad. Plaque has the ability to store fluoride in the form of an acid soluble crystal. When acid is formed by bacteria, the acid will dissolve the fluoride crystals and release fluoride where it is needed to prevent demineralization and promote remineralization. Remember, teeth that have more fluorapatite crystals in their structure are less soluble to acid demineralization.
The first sign of a cavity is a white spot on the surface of the tooth.

Sometimes these white spots can be remineralized and the decay will stop progressing. However, if the white spot is continually exposed to acid attack by bacteria, the tooth will continue to demineralize. As soon as the decay passes the enamel in the tooth and reaches dentin, decay will progress rapidly and form a hole in the tooth. If left alone without treatment, decay will eventually reach the nerve centre and cause pain for the child. At this point, the tooth will require more extensive treatment and perhaps even be lost.

How do we control Plaque?

Our main goal is to promote wellness for your child. The best way to control plaque is practice good oral hygiene. When bacteria formation is disrupted at least once every 24 hours, bacteria cannot produce enough acid to harm the teeth and gums. Brushing and flossing are the best ways to control plaque in the mouth, along with a healthy diet.

Babies and toddlers need help with brushing and flossing until their fine motor skills are developed enough for good oral hygiene practices. Supervise your child’s flossing until they are 10 years of age and their brushing until they are 7 to 8 years of age.
**Tips on Brushing**

~ Brush at least twice a day, in particular after breakfast and before bedtime. During sleep, saliva in the mouth decreases, leaving the teeth more vulnerable to tooth decay.

~ Brush with a soft or extra-soft bristled toothbrush.

~ Brush for at least 3 minutes. A timer is helpful to ensure each tooth is brushed.

~ Brush systematically and it will become second nature. Try to incorporate a systematic route/method of brushing all the teeth. For example, brushing the top teeth from left to right and then from the inside from right to left.

~ Change toothbrushes regularly. As soon as the bristles start to bend and flare, it is time to change the toothbrush. We recommend a new toothbrush every 3 months.

~ Use a Canadian Dental Association approved toothpaste with fluoride.

**HOW TO BRUSH**

**For younger children:** Simply have your children scrub their teeth in a back and forth motion on the inner, outer and chewing surfaces.

**For older children:** We recommend the modified Bass brushing technique.

1. Hold the toothbrush horizontally against your teeth with the bristles directed 45 degrees towards the gumline.

2. Move the bristles of the toothbrush in circular motions with a gentle motion for approximately 20 strokes.

3. Finally roll the bristles towards the biting surface of the tooth.

4. Repeat for each tooth until all the teeth are brushed.

5. To brush the inside of the front teeth, angle the brush vertically and use the same circular roll motion.

6. To clean the biting surfaces of the teeth, hold the bristles of the toothbrush on the biting surfaces and brush back and forth until all the teeth are cleaned. Remember, these biting surfaces often have deep pits and fissures on the chewing surfaces that need to be cleaned effectively.

7. Rinse thoroughly with water to flush out any debris and food.
How to Brush

Upper Outside Surfaces

Upper Inside Surfaces

Upper Chewing Surfaces

Upper Front Inside Surfaces

Lower Outside Surfaces

Lower Inside Surfaces

Lower Chewing Surfaces

Lower Front Inside Surfaces
Flossing

Flossing is the only way to clean between the teeth. Essentially think of flossing as an “in-between toothbrush”. Even baby teeth need to be flossed by parents. Baby molars often do not have space between them that allows for a self cleansing action to take place. By the time the child is 10, flossing can be done independently or with little or no supervision.

Flossing Wands
These simple wish bone flossing aids are an easy introduction to daily flossing. User friendly and easier to use than fingers, flossing wands are a great innovation.

How to Floss

1. Break off approximately 18 inches of floss and wind one end of the floss around your middle finger.

2. Use a short segment of the floss and hold the floss between your thumb and index finger of both hands.

3. Guide the floss gently between the teeth and see-saw through the contact.

4. Once it is through the contact, curve the floss in a "C" shape and slide it along the tooth and underneath the gumline. Slide the floss up and down to scrape debris and plaque away from the tooth surface. Then repeat this process against the neighboring tooth.

5. Repeat this process until all surfaces between the teeth are flossed.
FLUORIDE | Chapter 7

Relevant Facts

Dental health through cavity prevention in children is one of the forefront strategies of Kids Dental.

Fluoride is one tool in the battle against dental disease. Cavities should not be considered a fact of life. Research has shown that fluoride reduces cavities between 40 to 50 percent in baby teeth and 50 to 60 percent in adult teeth.

There are numerous benefits of fluoride. When added to community water supplies it is the single most effective public health measure we have to prevent tooth decay and improve oral health for a lifetime.

All water contains some fluoride naturally, in amounts greater or lesser than that needed to contribute to oral health benefits. Water fluoridation is the process of adjusting the natural level of fluoride to the concentration necessary for protection against tooth decay. Another way to receive fluoride is by using dental and home care products such as varnishes, gels, toothpastes and mouth rinses. Both systemic fluoride (fluoride that comes from eating foods and drinking liquids) and topical fluoride (fluoride that is applied to the surfaces of the teeth) work together to keep teeth strong.

Fluoride Varnishes: Innovation in Prevention at Kids Dental

At Kids Dental the implementation of fluoride varnishes for higher risk patients at intervals in-between regular dental visits represents a tremendous advancement in prevention. Fluoride varnishes present several important clinical and practical features compared to standard gels:

1. This innovative treatment has been shown in early research to reduce cavities by more than fifty percent
2. Varnishes are quick and easy to apply;
3. Varnishes do not have the bitter taste of gels and can be readily applied in more difficult cases, such as with young children or the handicapped;
4. The amount of fluoride ingested is small. Typically, plasma levels of fluoride barely change after varnish application, but can increase significantly after gel application.
Fluoride: Easy does it
Water fluoridation is safe. Since the 1930’s literally hundreds of carefully conducted scientific studies have shown that water fluoridation, at concentrations recommended for good oral health, has no harmful effects.

Parents should monitor their children’s tooth brushing habits. Kids Dental encourages parents to take an active role in their children’s oral health and one way to do so is to supervise their brushing habits. Children should be told to use only a small amount of toothpaste and not to swallow toothpastes and mouth rinses.

Excessive levels of dietary fluoride result in an increased risk of dental fluorosis that can be an esthetic problem. Dental fluorosis is a hypoplasia or hypomineralization of the dental enamel caused by the consumption of excessive amounts of fluoride during the years of tooth calcification. Only a small percentage of children experience this condition. Dental fluorosis is generally a mild condition unnoticeable to most people. It is characterized by lacy white lines or specks in the teeth and is not harmful to the patient’s health. What’s important to remember is that drinking optimally fluoridated water will not cause dental fluorosis in children.

Sourcing your child’s fluoride
Parents need to establish the fluoride content of their children’s primary drinking water source.

1. **Your Home Tap Water**: Get your water tested. In Winnipeg the communal water is fluoridated at 1 part per million.
2. **The School Drinking Supply**: One third of a child’s days are spent at school.
3. **Bottled Water**: Only four percent of bottled water has had fluoride added to it. Parents can check with manufacturers or the International Bottled Water Association to determine the fluoride content.
4. **Water Filters**: Some home water filters remove fluoride. Devices that operate by reverse osmosis can remove up to 95% of the fluoride from water, charcoal or carbon based systems usually remove less fluoride.
5. **Toothpaste**: Children at the younger ages are very susceptible to swallowing toothpaste. Therefore parents should supervise their preschooler’s toothbrushing. Use a small amount of toothpaste and discourage your child from swallowing toothpaste.
Advocating wellness is our primary mission, and nothing is more sacred to us than good nutrition. What our children will eat will affect them for the rest of their lives.

The old age “you are what you eat” is profoundly true. If this sounds like grandstanding consider this: almost all cancers are linked in some manner to nutrition. Links to heart disease, mental prowess, allergies, fertility, immune function and yes bones and teeth are all connected to the food our children will eat. With our busy lives, full schedules, savvy advertising from food processors (directed to our unsuspecting children) and the associated peer pressure of today’s treat culture, it’s no small wonder that the incidence of juvenile diabetes and obesity continues to soar over time. The trend is not pretty!

One generation ago most of us ate three square meals a day. Today processed and fast food sales have doubled over the past twenty years meaning that our children are eating more and more chemicals. We have adopted a diet where children’s’ food is a market segment of its own, with imaginative animal shapes and exotic colors. Pizzas, hot dogs, burgers, fruit roll ups, chips, cookies, chicken nuggets, candied yogurt and bright colored ketchups are marketing exercises aimed to boost sales with little nutritional value to offer. It is now estimated that fifty percent of us don’t eat a single portion of fruit per day and less than twenty-five percent of us eat the daily recommendation of five portions of fruit and vegetables.

From a dental perspective good nutrition is important but good nutrition alone doesn’t guarantee healthy, cavity resistant teeth. Other factors include regular hygiene care, the appropriate fluoride and sealants on back molars.

Carbohydrates from fruit, starches and candies are consumed in the mouth by bacteria which in turn produce acids that lead to tooth decay. Bacteria are not fussy; it is irrelevant whether the carbohydrates come from sugars or starches, like bread and crackers.

So candies are not measurably worse than fruit or a glass of juice. In fact new data suggest that crackers and cookies are more cariogenic (cavity producing) than say a lollipop because the crumbs from cookies and crackers stay in the mouth longer. This issue is described as retentiveness. Cooked starches stay longer in the mouth than caramels and cola, because it take hours for these acid producing bacteria to break these complex foodstuffs into their constituent sugars.
A nother factor is frequency, where bacteria are quite active for up to thirty minutes after eating-regardless of the size of the meal or snack. So frequent eating also leads to a higher incidence of tooth decay. Practices like sipping on a cola all day long or sucking on throat lozenges can provoke prolonged exposure to cavity producing acids.

**Short-term consequences of junk nutrition**
- Since 1970 the incidence of childhood obesity has doubled, with the greatest increase in the past ten years.
- Sadly one in six teenagers shows significant early signs of heart disease.
- Increased incidence of learning difficulties.

**Long-term consequences of junk nutrition**
- The World Cancer Research Fund claims that between thirty to forty percent of cancers may be caused by dietary factors.
- Sperm count on average is dropping 1.5% per year and experts are predicting a mass infertility epidemic by the middle of the 21st century.
- Heart disease is present in some form in 20% of the children population.
- Osteoporosis studies indicate that carbonated drinks are robbing bones of calcium and other minerals necessary to maintain bone mass. Today, school programs substitute milk for cola as a portion of the sales goes towards school revenues.
- Besides processed and junk foods possessing little nutritive value they also contain a tremendous number of chemicals linked to an equally high number of illnesses and diseases. Many of these chemicals act as anti-nutrients that serve to block the body's ability to absorb the very elements children need to grow healthy and strong.

**General recommendations**
- A balanced diet of fats, carbohydrates, proteins, vitamins, minerals, and trace elements coupled with water and fiber ensures that our children will heal, grow and develop at their optimal potential.
- Seek out a nutritionist for consultation and support.
- Read “Natural Health Care for Children” by Karen Sullivan M.D.
The chart above shows how many Food Guide Servings you need from each of the four food groups every day.

Having the amount and type of food recommended and following the tips in Canada’s Food Guide will help:

- Meet your needs for vitamins, minerals and other nutrients.
- Reduce your risk of obesity, type 2 diabetes, heart disease, certain types of cancer and osteoporosis.
- Contribute to your overall health and vitality.
Oils and Fats

- Include a small amount – 30 to 45 mL (2 to 3 Tbsp) – of unsaturated fat each day. This includes oil used for cooking, salad dressings, margarine and mayonnaise.
- Use vegetable oils such as canola, olive and soybean.
- Choose soft margarines that are low in saturated and trans fats.
- Limit butter, hard margarine, lard and shortening.
Eat well and be active today and every day!

The benefits of eating well and being active include:
- Better overall health.
- Lower risk of disease.
- A healthy body weight.
- Feeling and looking better.
- More energy.
- Stronger muscles and bones.

Be active
To be active every day is a step towards better health and a healthy body weight.

Canada’s Physical Activity Guide recommends building 30 to 60 minutes of moderate physical activity into daily life for adults and at least 90 minutes a day for children and youth. You don’t have to do it all at once. Add it up in periods of at least 10 minutes at a time for adults and five minutes at a time for children and youth.

Start slowly and build up.

Eat well
Another important step towards better health and a healthy body weight is to follow Canada’s Food Guide by:
- Eating the recommended amount and type of food each day.
- Limiting foods and beverages high in calories, fat, sugar or salt (sodium) such as cakes and pastries, chocolate and candies, cookies and granola bars, doughnuts and muffins, ice cream and frozen desserts, french fries, potato chips, nachos and other salty snacks, alcohol, fruit flavoured drinks, soft drinks, sports and energy drinks, and sweetened hot or cold drinks.

Read the label
- Compare the Nutrition Facts table on food labels to choose products that contain less fat, saturated fat, trans fat, sugar and sodium.
- Keep in mind that the calories and nutrients listed are for the amount of food found at the top of the Nutrition Facts table.

Limit trans fat
When a Nutrition Facts table is not available, ask for nutrition information to choose foods lower in trans and saturated fats.

Nutrition Facts
Per 0 mL (0 g)

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For more information, interactive tools, or additional copies visit Canada’s Food Guide on-line at: www.healthcanada.gc.ca/foodguide

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Également disponible en français sous le titre:
Bien manger avec le Guide alimentaire canadien

This publication can be made available on request on diskette, large print, audio-cassette and braille.

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### Make each Food Guide Serving count… wherever you are – at home, at school, at work or when eating out!

- **Eat at least one dark green and one orange vegetable each day.**
  - Go for dark green vegetables such as broccoli, romaine lettuce and spinach.
  - Go for orange vegetables such as carrots, sweet potatoes and winter squash.

- **Choose vegetables and fruit prepared with little or no added fat, sugar or salt.**
  - Enjoy vegetables steamed, baked or stir-fried instead of deep-fried.

- **Have vegetables and fruit more often than juice.**

- **Make at least half of your grain products whole grain each day.**
  - Eat a variety of whole grains such as barley, brown rice, oats, quinoa and wild rice.
  - Enjoy whole grain breads, oatmeal or whole wheat pasta.

- **Choose grain products that are lower in fat, sugar or salt.**
  - Compare the Nutrition Facts table on labels to make wise choices.
  - Enjoy the true taste of grain products. When adding sauces or spreads, use small amounts.

- **Drink skim, 1%, or 2% milk each day.**
  - Have 500 mL (2 cups) of milk every day for adequate vitamin D.
  - Drink fortified soy beverages if you do not drink milk.

- **Select lower fat milk alternatives.**
  - Compare the Nutrition Facts table on yogurts or cheeses to make wise choices.

- **Have meat alternatives such as beans, lentils and tofu often.**

- **Eat at least two Food Guide Servings of fish each week.***
  - Choose fish such as char, herring, mackerel, salmon, sardines and trout.

- **Select lean meat and alternatives prepared with little or no added fat or salt.**
  - Trim the visible fat from meats. Remove the skin on poultry.
  - Use cooking methods such as roasting, baking or poaching that require little or no added fat.
  - If you eat luncheon meats, sausages or prepackaged meats, choose those lower in salt (sodium) and fat.

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*Health Canada provides advice for limiting exposure to mercury from certain types of fish. Refer to www.healthcanada.gc.ca for the latest information.*
Advice for different ages and stages…

Children
Following Canada’s Food Guide helps children grow and thrive.
Young children have small appetites and need calories for growth and development.
• Serve small nutritious meals and snacks each day.
• Do not restrict nutritious foods because of their fat content. Offer a variety of foods from the four food groups.
• Most of all... be a good role model.

Women of childbearing age
All women who could become pregnant and those who are pregnant or breastfeeding need a multivitamin containing folic acid every day. Pregnant women need to ensure that their multivitamin also contains iron. A health care professional can help you find the multivitamin that’s right for you.
Pregnant and breastfeeding women need more calories. Include an extra 2 to 3 Food Guide Servings each day.
Here are two examples:
• Have fruit and yogurt for a snack, or
• Have an extra slice of toast at breakfast and an extra glass of milk at supper.

Men and women over 50
The need for vitamin D increases after the age of 50.
In addition to following Canada’s Food Guide, everyone over the age of 50 should take a daily vitamin D supplement of 10 μg (400 IU).

How do I count Food Guide Servings in a meal?
Here is an example:

| Vegetable and beef stir-fry with rice, a glass of milk and an apple for dessert |
|-------------------------------|---------------------------------|
| 250 mL (1 cup) mixed broccoli, carrot and sweet red pepper = 2 Vegetables and Fruit Food Guide Servings |
| 75 g (2 ½ oz.) lean beef = 1 Meat and Alternatives Food Guide Serving |
| 250 mL (1 cup) brown rice = 2 Grain Products Food Guide Servings |
| 5 mL (1 tsp) canola oil = part of your Oils and Fats intake for the day |
| 250 mL (1 cup) 1% milk = 1 Milk and Alternatives Food Guide Serving |
| 1 apple = 1 Vegetables and Fruit Food Guide Serving |
A balanced diet is an important part of maintaining your child’s healthy teeth and gums. Good eating habits and food preferences are established in childhood.

Poor nutrition can eventually lead to poor health, obesity, tooth decay, and periodontal disease. Additionally, when and how often a child eats may also adversely affect their teeth.

Bacteria in the mouth metabolize carbohydrates and simple sugars from the leftover food debris and form acid, which decays teeth. It takes approximately 20 minutes for saliva to wash away this damaging acid, and so if your child is frequently snacking there will be a acidic environment for the teeth.

Carbohydrates, which are ultimately broken down to simple sugars, may come in many hidden forms. Potato chips and pretzels for example are as cavity as lollipops.

**Hang Time**

The longer food can hang onto the surface of a tooth, the greater the likelihood of forming cavities.

Foods like granola bars, potato chips, pretzels, salted and peanut butter crackers, and cookies are the hang time champs. First runner up are figs, jelly beans, doughnuts and raisins. Followed by white bread, caramels and cream filled pastries.
Dental food facts

- Your child's dental health depends less on what they eat and more on how often they eat it. Overall well being however requires a well balanced diet.
- Most foods contain sugars or starches that enable bacteria in dental plaque to produce acids. These acids demineralize tooth structure which leads to cavities.
- High Carbohydrate-Cavity Causing Foods
  - Crème-filled sandwich cookies
  - Dried figs or granola bars
  - Jelly beans
  - Oatmeal or peanut butter cookies
  - Plain doughnuts
  - Potato chips and pretzels
  - Puffed oat cereal
  - Raisins
- To the cavity causing bacteria in the mouth, sugars are all the same, whether natural or processed the same. Therefore all types of sugars and the foods that contain them can play a role in tooth decay.
- Cooked starches can lead to cavities just as sugars can. In fact crackers, cookies, pretzels and potato chips take longer to clear the mouth than sugars do. So the risk to decay is greater.
- The bacteria levels in the mouth can't discern the difference in the amount of sugar in food. For example a sip of a cola can start the same mega acid attack as eating a whole apple pie.
- A food with sugar or starch is safer for teeth if it is eaten with a meal, not as a snack.
- Snacks served no more than three or four times a day should contribute to the overall nutrition of the child. Healthy snack foods include; cheese, vegetables, fruit and yogurt.
- A child that sips on apple juice all day long or continuously sucks on a rock candy every few minutes to keep it longer runs a higher risk of developing tooth decay.
- Serve cheese for lunch or as a snack. Cheddar, Monterey Jack and Swiss, triggers the flow of saliva that helps wash foods particles away from teeth.
- Pack milk or water instead of juice or soda.
- Chewing sugarless gum can help reduce the risk of cavities and interferes with the metabolism of acid producing bacteria. Gum helps dislodge some of the food stuck in your child's teeth, but it also increases saliva which helps buffer the acids in your child's mouth. The ingredient “xylitol” in sugarless chewing gum also interferes with the metabolism of acid producing bacteria.
Here are some helpful hints to minimize the effects of high carbohydrate foods.

- Give your child healthy snack foods such as fresh fruits, vegetables and cheeses.
- Buy foods that are sugar-free or unsweetened.
- Serve sugary or starchy foods with meals instead of as a snack.
- Avoid sticky foods unless your child can have their teeth brushed soon after eating.
- Make sure your child’s teeth are brushed after snacks or at a minimum they should rinse their mouth with water a few times.
- Encourage your child to chose xylitol-sweetened or sugar-free gum.
- Do not give your child a bottle with any juice or milk at bedtime.
- Only water should be given.

**Five Point Preventive Plan**

All things being equal if your child brushes regularly and gets sufficient fluoride, there’s nothing wrong with snacking sensibly. Even if it includes the occasional candy! Especially if your child follows our five point preventive plan of:

1. Effectively brushing at least twice daily and flossing once daily
2. Sufficient fluoride
3. Receiving sealants on most permanent teeth
4. Seeing us at Kids Dental regularly
5. Having a healthy diet
INFANT FEEDING

In terms of preventing dental decay here are some tips concerning infant feeding:

- Breast feeding is recommended until age one
- Otherwise always hold the infant when bottle feeding
- No propping of bottle
- Only formula or breast milk in bottle
- From breast to cup

Bed time alternatives to bottles:

- Stuffed toy
- Blanket
- Clean pacifier
- Rocking
- Back rub
- Read or sing
- Remember crying is normal, after a few nights your baby will sleep peacefully

If your child is having a lot of difficulty giving up the bottle filled with juice or milk at bedtime try to:

- Slowly replace the juice or milk with water adding more water to the juice or milk each time. Eventually, this way, your child will become used to a bottle with only water.

TODDLER FEEDING

Liquids

- Ideally sugar free drinks
- No “liquid grazing” - sippy cups can contribute to “liquid grazing”. If a child is thirsty dispense water. Try to keep juice and milk to a normal cup so that your children are not walking around with it all afternoon.
- Milk or water between meals
- Sugars in fruit juice cause cavities
- Limit fruit juice to meal times

Solid foods

- Limit number of times eating and snacking
- Regular meals, no “grazing”. Be careful of sippy cups which can contribute to “liquid grazing”. Avoid juice or milk in these cups, it promotes periodic drinking all day long.
- Sugar free snacks like cheddar cheese
What to expect at Kids Dental office

The first visit is usually a short one. Our aim is to give your child a chance to get to know the dentist and the clinic in a friendly and non-threatening manner. During this visit our dental team will do the following:

- Examine your child's teeth for decay
- Examine your child's gums and soft tissue for disease or problems
- Evaluate the way your child's teeth fit together, "the bite"
- Identify any potential problems or deleterious habits
- Show you and your child how to properly clean his or her teeth at home
- Answer your questions or concerns

We do not usually do a cleaning on your child's first visit, since we want this visit to be as easy and fun as possible for your child. If your child is very mature or around the age of three or four at the time of their first visit, we may recommend a cleaning and fluoride application. This prophylaxis is an important treatment that serves to reinforce the importance of home care as well as remove plaque and tartar from teeth. At age one a lap-top exam is preferred. In the later years it would be best for the child to sit independently as this enhances the communication between the dentist and the child, without the child looking to the parent for encouragement or security. Our dentists are experts at handling all types of young patients in a friendly and understanding way.

A parent or legal guardian must accompany the child for this first visit, since this person will be asked to fill out medical and dental health forms. The parent should also bring a list of any medications the child may be taking and be prepared to discuss any behavioral or health issues. This information is important because it helps us to treat and manage your child in a safe and effective manner.
Preparing for the first office visit

It is important to us and to your child that the first visit be a positive one.

We recommend that your child make their first visit at 12 months of age. At this visit our clinical team will count your child’s teeth and take a quick peek inside the mouth to assess his or her overall state of oral health and to pinpoint any problems early. The entire procedure may only take one or two minutes depending on the behavior of your child. The main goal is to have a fun and easy visit with your child and to introduce them to our dental clinic and children’s play village.

The best predictor of a child’s behavior in the dental chair is the parent’s level of anxiety. In most cases, if the parent is nervous, the child is going to feel the same way. Here are a few tips to help your child's first dental visit go smoothly:

• Tell your child about the visit, but don’t go into details.
• Let the dentist answer the questions about dental tools and procedures since we often have kid friendly terms for all of our tools. We will explain things in a non-threatening, easy to understand manner.
• Never tell your child that something may hurt.
• Don’t tell your child about your own unpleasant experiences.
• Try not to promise your child a reward for going to the dentist.
• Remember that young children are often fearful. Some are afraid of being separated from their parents, others from the unknown, and some are just shy. We treat many children in our office and have many ways of helping an anxious or fearful child learn to understand and cope with their dental visits.
• Explain to your child that the dentist is there to help them with the very important job of keeping their teeth and gums healthy.
Sealants: long lasting dental insurance

Four out of five cavities in children under 12 occur on the biting surfaces of the back teeth.

The teeth most at risk of decay are the six year molars and twelve year molars. The biting surfaces of these molars erupt into the mouth often with deep grooves and pits. Even if your child brushes his or her teeth, it is almost impossible for him or her to clean the deep hills and valleys on the back teeth. These teeth are at greatest risk of decay when they first erupt into the mouth. Sealants are placed on these teeth to seal out food and plaque thus reducing the risk of decay. One might say, why is this so important? The 6-year molars are considered the most important teeth in your child's mouth. Once they erupt into the mouth, they act as foundations for the dental arch and its development. They also aid in keeping the other teeth in their positions.

A dental sealant is a clear or white plastic coating that is painted onto the biting surfaces of the back teeth. Sealants are applied in a liquid state and harden and bond to teeth in only a few seconds.

Sealants should be a part of your child's preventive dental care, along with brushing and flossing, use of fluoride, good nutrition and regular dental check-ups.
Sealants for children

Brushing and flossing help prevent cavities. So does and regular dental visits. But one of the best ways to keep your child cavity-free is to have sealants applied to his or her back teeth or molars. Not only are sealants very effective, they also cost a lot less than filling cavities.

A sealant is a clear or tinted plastic coating that is brushed onto the chewing surfaces of the back teeth, the area where most cavities form. Look in the mirror at your own molars. As you can see, there are many grooves and crevices (also called pits and fissures) that food can get stuck in. In fact, some crevices can be so deep that the bristles of a toothbrush aren't small enough to reach into them to remove food that has lodged there. These pits and fissures provide the perfect environment for bacteria to grow and cavities to form. Sealants prevent this from happening. They cover the grooves and crevices so that there is no way for food to get into them.

Applying sealant is a quick, painless procedure that can be done during a routine dental visit. No injections are needed. However, it is very important that the child sit still during the treatment so the tooth or teeth being worked on stay dry. First, the dentist cleans the tooth to remove any food or debris in and around the teeth and makes sure they are completely dry so that the sealant can stick. The sealant is applied in liquid form and flows over and into the pits and fissures. The sealant usually hardens (sets) within 20 to 60 seconds or is set with a special light.

Kids Dental recommend that sealants be applied to each permanent molar as soon as possible. This may be when the tooth is only partially erupted. It depends on how accessible the tooth is and whether the dentist will be able to keep it dry during the application process. The child must be able to cooperate and sit still during the treatment. Sealants also should be applied to second molars when they erupt, usually when the child is about 12 years old. If your child is at high risk for cavities, your dentist may decide to seal your child's bicuspids as well. Dentists normally don't suggest sealants for primary (baby) teeth. However, they can be beneficial for some children.

Studies show that sealants can last a long time, often as long as 10 years. But they are plastic and don't last forever. The dentist will check the sealants during your child's routine check-ups. Sealants that are worn or gone can be replaced. Although it is rare, sealants can cause problems in children who are allergic to plastics or components of plastics.

Remember, sealants work well, but they can't keep your child cavity-free without some help. Good oral care at home is still very important.
Dental emergencies occur when you least expect them. When a dental emergency occurs, the most important aspect of handling the emergency is to have your child brought to our office as soon as possible.

**Oral ulcers**
Protective ointments and gels such as Zilactin and Orajel may provide symptomatic relief of pain for your child. These products can be purchased at the local pharmacy. The most helpful treatment for aphthous ulcers is application of Kenalog in Orabase ointment which is applied to the ulcers four times daily.

If your child is consistently presents with aphthous ulcers, a diary of when the ulcers occur and what possible items and events triggering the aphthous ulcers may be helpful. It is best to avoid trauma inside the mouth and avoid abrasive food such as hard pretzels and potato chips. Your child should avoid allergenic foods such as nuts, chocolate, and acidic foods that may trigger an aphthous ulcer event.

**Toothache**
Have your child rinse their mouth vigorously with warm water to flush out debris. Use dental floss to remove any food trapped between the teeth. If your child requires an analgesic, have them take either Children’s Tylenol or Children’s Advil. Do not apply the medication to the tooth or sore area.

**Knocked out permanent tooth**
If the tooth is dirty rinse it gently in cool running water. Don’t scrub it. Gently replace the tooth in its socket and hold it in place. If this doesn’t work, put in a container of cool water. GO IMMEDIATELY (within 30 minutes if possible) to the dentist, who may be able to reimplant the tooth. After hour emergency appointments are available by contacting our emergency answering service.
A baby tooth is knocked out
Rinse your child's mouth with water and apply a cold compress to reduce swelling. The best treatment is to spend time comforting your child and to call the office immediately. At the office, we will take a thorough history and exam to ensure no other injury has been sustained elsewhere to your child.

* Do not attempt to reimplant a baby tooth as this may damage the permanent tooth below.

Bitten tongue or lip
Apply direct pressure to the bleeding area with a clean cloth. If there is swelling, apply cold compresses. If the bleeding does not stop, take your child immediately to a hospital emergency room.

Broken or chipped tooth
Immediately contact the office and bring your child to the office. Immediate action can prevent infection and reduce the need for extensive dental treatment. Gently clean the debris from the injured area with warm water. Attempt to save the tooth fragment and bring it with you to the office. Use cold compresses to minimize swelling.

Emergencies can be prevented. The following are a few tips we suggest to reduce the chance of a dental emergency:

1. Keep regular dental visits and preventive care to protect your child from unnecessary toothaches.
2. Encourage your child to wear comfortable mouth guards during sports.
3. Child proof your home to prevent falls, electrical injuries and choking on small objects. A significant number of injuries occur in children under 3 as they are just learning to walk and develop their coordination.
Prevention of oral injury

Eighty percent of all fractured teeth occur in children, with the upper front teeth being most often involved. Injuries are the most frequent causes of mouth trauma. Biking, baseball, and skateboarding are the three main causes of tooth injuries. Home injuries, such as tripping over objects on the floor, stairway or ground, and not using handrails on stairways, cause many oral injuries. A large number of injuries happen on school playgrounds.

Safety Rules

Children need to prevent oral injuries. By learning and practicing common safety rules, children can prevent injuries to themselves and their teeth. Some of these rules are listed below.

1. Always wear a properly fitted helmet and mouthguard in vigorous games and contact sports.
2. Remember to wear a catcher’s mask when receiving pitched balls.
3. Keep your skateboard under control; don’t push or shove another skateboarder.
4. Don’t push or trip other skaters, or “hitch” a ride.
5. Use the ladder to climb out of a pool.
6. Don’t run alongside the pool or push playmates into it.
7. Don’t hit, push, or throw things at people as they drink from a container or fountain.
8. Be prepared for sudden stops in a vehicle; always use your seat belt.
9. Never climb a wet tree or fence; the footing may be slippery.
10. Always use your handlebars when riding your bike. Be extra careful when riding in rainy weather; wet roads and leaves are dangerous.
11. Never trip or push another playmate.
12. Watch out for trees, stumps, and other objects in your path when walking or running.
13. Climb with an experienced person and be sure to test firmness of rocks and footing.
14. Remain seated in a swing and don’t jump from or walk under a moving swing.
15. Watch out for trees and other things in your path when sledding.
Mouthguards

Many experts recommend that mouthguards or mouth protectors be worn during any recreational sport. Mouthguards help prevent injury to the protect against head and neck injuries by cushioning blows that might otherwise cause concussions or lead to jaw fractures. Some of the sports for which mouthguards are recommended include:

<table>
<thead>
<tr>
<th>Acrobatics</th>
<th>Discus</th>
<th>Ice Hockey</th>
<th>Shotputting</th>
<th>Squash</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseball</td>
<td>Field Hockey</td>
<td>Lacrosse</td>
<td>Skateboarding</td>
<td>Surfing</td>
</tr>
<tr>
<td>Basketball</td>
<td>Football</td>
<td>Martial Arts</td>
<td>Skiing</td>
<td>Volleyball</td>
</tr>
<tr>
<td>Bicycling</td>
<td>Gymnastics</td>
<td>Racquetball</td>
<td>Skydiving</td>
<td>Water Polo</td>
</tr>
<tr>
<td>Boxing</td>
<td>Handball</td>
<td>Rugby</td>
<td>Soccer</td>
<td>Weightlifting</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Wrestling</td>
</tr>
</tbody>
</table>

Mouthguards cover only the upper teeth because they are the most frequently injured. Covering lower teeth may create additional bulk, diminishing comfort and fit while providing little extra protection. Mouthguards should be resilient, thin enough for easy breathing, tear-resistant, and comfortable. They should also fit properly, be durable, easy to clean, and not difficult to speak with. Rinsing the mouthguard with cold water or mouthrinse before using it will help increase its comfort in the mouth.

There are three types of mouthguards. Although the three types provide protection, they differ in comfort, fit, and cost. The three types are:

1. **Stock mouthguard** - the stock mouthguard is ready-made and can be found at most sporting goods and department stores. It is commonly constructed of rubber or a polyvinyl material. Little can be done to adjust the fit of a stock mouthguard. It is often bulky and uncomfortable. The jaws must be closed to hold the mouthguard in place. Good for a developing dentition.

2. **Mouth-formed mouthguard** - the mouth-formed guard is a plasticized acrylic gel or thermoplastic material conformed to the contours of the individual's teeth. Good for a developing dentition.

3. **Custom-made mouthguard** - the custom-made mouthguard is individually designed and constructed by a dentist. It is constructed over a plaster replica of the individual's teeth and is more expensive. It offers exceptionally good fit, comfort, and overall quality. Ideal for a permanent dentition.

A strap is often fastened to any of these mouthguards, protecting against loss and allowing the mouthguard to be removed or suspended from other face gear when the individual is not in play. Mouthguards can last a long time if they are cared for properly. The mouthguard should be rinsed under tap water after each use and allowed to dry before storing.
Dental first aid

If an oral injury should occur despite using safety precautions and mouthguards, prompt attention is necessary. Try to clean dirt or debris from the injured area with warm water. Place cold compresses on the face next to the injured area to minimize swelling. Then, see your dentist at Kids Dental immediately. Loss of primary teeth due to accidents may not cause concern to some parents because they feel those teeth will soon be replaced by permanent teeth. However, the absence of these teeth may affect the child’s speech, appearance, and ability to eat properly. Injury to or premature loss of primary or permanent teeth should be checked by your dentist.

A dental first-aid kit is necessary to apply proper dental first aid. Items needed in the dental first aid kit or as part of a general first-aid kit are as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotton swabs</td>
<td>Stops bleeding; cleans injury</td>
</tr>
<tr>
<td>Tea bags</td>
<td>Stops bleeding by pressing a wet tea bag on bleeding injury (tannic acid in tea stops bleeding)</td>
</tr>
<tr>
<td>Dental floss</td>
<td>Removes objects from between teeth</td>
</tr>
<tr>
<td>Interdental cleaner or toothpicks</td>
<td>Removes objects wedged between teeth</td>
</tr>
<tr>
<td>Sterile gauze squares</td>
<td>Cleans injury or used as compress</td>
</tr>
<tr>
<td>Tweezers</td>
<td>Removes objects between teeth</td>
</tr>
<tr>
<td>Dental wax (or paraffin)</td>
<td>Stops irritation to cheeks or gums by placing the dental wax over a chipped tooth or a protruding wire from orthodontic bands</td>
</tr>
<tr>
<td>Ice pack</td>
<td>Helps reduce swelling of an injury</td>
</tr>
<tr>
<td>Handkerchief</td>
<td>Immobilizes broken jaw</td>
</tr>
<tr>
<td>Milk</td>
<td>Stores a knocked-out tooth, if unable to place immediately back in socket or store under the tongue</td>
</tr>
<tr>
<td>Medications</td>
<td>Consult school nurse and/or school’s medication policy</td>
</tr>
</tbody>
</table>
What is orthodontics?

Orthodontics is that specialty branch of dentistry dealing with crooked or malaligned teeth and jaws.

Straight teeth are important for a nice smile which in turn is important for esthetics and good looks as well as psychological confidence and social acceptability. Correct jaw positioning as well as well positioned teeth are together important for mastication (chewing), digestion, speech and good looks, in other words physiological and psychological health. Straight teeth are also easier to keep clean and this enhances the health of the gums and of the oral cavity in general.

Crooked teeth

Crooked teeth and jaws and unbalanced facial problems could be caused by heredity (genes), environmental factors (air pollution causing altered breathing patterns; nutrition etc.) and habits (thumb sucking). This exemplifies the importance of a balanced diet, healthy lifestyle and absence of deleterious habits in stimulating normal growth and development of the teeth and jaws. However, most dental and skeletal malocclusion, being of genetic origin, are not preventable and may present as buck teeth, crooked teeth, missing teeth, teeth of the incorrect size and/or shape, additional or extra teeth, incorrectly positioned jaws, larger or smaller than normal jaws, cleft palate etc.

Orthodontic problems

Orthodontic problems could manifest at any age, but normally most problems are diagnosable between 6 and 14 years of age. Many problems, such as single tooth crossbites could be treated as young as 7 or 8 years of age. Many problems should be treated while the child is actively growing, between 8 and 16 years of age. Males on average mature about 2 years later than females and may continue active growth into the 16th year. Growth modification or growth stimulation (orthopedics) of the jaws must be accomplished while the patient is growing and the active growth period in females ends at about 12 years of age and 14 years in males.
Orthodontic problems

During orthopedics the patient may be required to wear a nightbrace (headgear) or activating appliance (functional appliance) at night during sleeping hours.

Sometimes it is beneficial to undertake treatment in 2 phases, starting with an early or first phase of treatment which normally last about 1 year. Once all the baby teeth have fallen out and all the adult teeth have erupted, orthodontic treatment of both arches can be undertaken. Full-fixed orthodontic appliances or braces are normally placed on the teeth to straighten them. Braces are normally worn for about 2 years with the patient coming into the office every 4 to 6 weeks for adjustments. After orthodontic treatment is finished, a retention appliance (retainer) often needs to be worn to keep the teeth straight. In certain instances, the jaws are so malpositioned, that orthogathic surgery or jaw surgery in combination with braces is required to correct the malocclusion.

**Braces**

Sometimes at the end of treatment, the dentist needs to build-up some teeth with an aesthetic tooth, coloured resin or filling material or some other prosthodontic prosthesis to restore it. This is part of those difficult cases requiring multidisiplinary treatment.

Put steady pressure on your teeth, guiding them into place. Brackets are cemented to the teeth. They have grooves that hold the archwires.

**Retainer**

A retainer holds your teeth in their new positions while bone grows in to hold them steady. You may wear a positioner first, to move your teeth each slightly and put the finishing touch on your new smile. Make sure your child wears their retainer as many hours as the orthodontist suggests. Brush the retainer with toothpaste once a day. When your children are eating, keep them safely in its case.
**Brushing**

Make sure you brush your teeth right after every meal and before you go to bed. Use a fluoride toothpaste to help fight cavities. Your orthodontist may also prescribe a fluoride mouth rinse to help prevent cavities.

Follow this brushing method with braces:

1. Start by brushing the outside of each tooth at least 10 times.
2. Brush the inside surface of each tooth at least 10 times, too.
3. Then brush where your gums and teeth meet, using a rolling motion.
4. Brush the chewing surfaces of your teeth last, and rinse with water.
**Flossing**

Brushing alone won't keep your teeth clean - flossing can help. A floss threader, available from your orthodontist helps you floss with braces on. Floss once a day, like this:

**#1**
Thread floss through the threader and slip it up behind your archwire.

**#2**
Pull the floss between two teeth and up under your gum margins.
Kids Dental™ is a place that celebrates family, fun and well being.

Our mission is dedicated to the principle of lifelong dental health through prevention, showing that the right dental and nutritional decisions can have a profound effect on a child’s life and future.

Please visit our website at: www.kidsdental.ca for wonderful parent resources, updates and support. It’s also a place for your kids and you to explore educational games and Kids Dental materials.

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