Winter is here and February’s National Children’s Dental Health Month is right around the corner. CDC states, “Tooth decay (cavities) is one of the most common chronic conditions of childhood in the United States. Untreated tooth decay can cause pain and infections that may lead to problems with eating, speaking, playing, and learning.”

The message from Donna E. Shalala, Secretary of Health and Human Services in the Oral Health in America: A Report of the Surgeon General, 2000, reads: “The terms oral health and general health should not be interpreted as separate entities. Oral health is integral to general health...ignoring oral health problems can lead to needless pain and suffering, causing devastating complications to an individual's well-being, ... that significantly diminish quality of life…”

You can help get this message across to your students, their parents, and fellow staffers. Surgeon General [Ret.] C. Everett Koop informed Americans that, “You can't have over-all health without good oral health.” Oral health matters! Healthy Smiles are Happy Smiles!

February celebrates National Children’s Dental Health Month, helping to raise awareness about the importance of oral health to overall health! These days, tooth decay is almost entirely preventable. Approximately, 1 out of 5 children aged 5 to 11 years have at least one untreated decayed tooth. For adolescents, aged 12–19, about 3 in 5 had experienced dental caries in permanent teeth, with 15% having untreated tooth decay. “The American Dental Association, along with the ADA Foundation, is pleased to provide you with the February 2016 National Children's Dental Health Month (NCDHM) campaign poster. This year’s NCDHM campaign slogan “Sugar Wars” is displayed on both sides of the poster. The Smileys, McGrins and K9 are in a spaceship, the USS SweetSwatter. It is equipped with toothbrush swatters, fighting against the Sweet Tooth Invaders for good oral health. On the reverse side, preteen/teenagers demonstrate effective ways to defeat the effects of sugar and maintain good oral health by brushing, flossing, rinsing, and eating healthy snacks. These versatile posters will help address a range of age groups.

The NCDHM Program Planning Guide provides program coordinators, dental societies, teachers, and parents with resources to promote the benefits of good oral health to children. The guide includes easy-to-do activities, program planning timetable tips, a sample NCDHM proclamation, and much, much more.”

Fifty-one (51) million school hours a year are lost because of dental problems. When a child’s oral health suffers, so does his ability to learn. We know that poor oral health can have detrimental effects on a child’s quality of life, his school performance, ability to speak properly, and life success. For millions of children, persistent dental pain is a reality every day with dental abscesses, headache, facial pain, difficulty chewing, and self esteem issues because of the odor, tooth discoloration, and obvious damage. This constant pain causes the inability to pay attention at school leading to learning distraction. These children are unlikely to score as well on tests.

Children from low-income families are 4x more likely to suffer toothaches within the last 6 months than other children. Grade point averages in this group tend to be below 2.8. Children in low-income families are 6x more likely to miss school because of oral health problems. When their dental problems are treated and their pain is eliminated school attendance and learning improves.¹

**Oral health education should be part of the yearly curriculum.** Students and parents need to know about good health habits, services available in school-based oral health programs, and low-cost dental services either in health department dental clinics or other dental offices.

**Curriculum required for health and PE courses** should include dental and facial injury prevention, not only for the sake of the children and their families, but staff members as well. Injuries of this nature can result in aesthetic, social, psychological, and therapeutic problems, some of which may be permanent. One in 14 children/adolescents between ages 5 to 14 years suffer from these types of injuries. Fractured teeth can impact socialization skills and self esteem issues among ages 12 to 14 and into adulthood. **The classroom is a great place to teach the importance of oral health in regards to overall health:**

- **Incorporate this into lesson plans** in math, reading, writing, social studies, health, and science.
- **Provide water breaks** to allow children to sip, rinse, and swallow water from school water fountain. This helps prevent cavities by clearing the mouth of food particles causing bacterial “acid–attacks” plus it has fluoride to help strengthen the tooth enamel.
- **Invite dental professionals** to speak to your classes. Health department dental staff are wonderful resources for oral health information and have experience working with children. Classroom and group presentations may include free toothbrushes, supplies, and/or dental activity sheets. Topics may incorporate:
  - Oral Hygiene and Nutrition
  - Tobacco and Drug Awareness
  - First Aid for and Prevention of Dentofacial Injuries
  - Oral Fad Awareness and Dangers including Piercings and Tattoos
  - High School Parenting Classes regarding the importance of oral health for moms and babies (also great for baby-sitters!)
  - **Career Day** to help interested students learn more about oral health-related careers.

**Dental Prevention Program Services** may be available for your school which offer dental screenings, dental pit and fissure sealants, fluoride treatments and possibly cleanings at no charge or lower cost for your students.

General health and oral health are linked. You can’t have one without the other.² Poor oral health, not only affects **learning ability**, but may also be related to **school performance numbers**.

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Types of periodontal diseases in children

**Gingivitis** is both preventable and treatable with a regular brushing, flossing, and professional dental care. Common in children, **chronic gingivitis** usually causes the gums to turn red, become swollen, and bleed easily. If left untreated, it can advance to periodontal disease (periodontitis) which is a much serious form of gum disease.

Healthy young people can even be affected by **aggressive periodontitis**. Mainly affecting the first molars and incisors, localized aggressive periodontitis is found in teens and young adults. It causes severe alveolar bone loss, and can even be found in patients with very little dental plaque or calculus.

**Generalized periodontitis** can involve the entire mouth. The gums become inflamed around heavy accumulations of plaque and calculus, and teeth can eventually become loose.

### Four basic signs of periodontal disease in children

1. **Bleeding**
   - Bleeding gums during tooth brushing, flossing or any other time

2. **Puffiness**
   - Swollen and bright red gums

3. **Recession**
   - Gums that have receded away from the teeth, sometimes exposing the roots

4. **Bad Breath**
   - Constant bad breath that does not clear up with brushing and flossing

Importance of good dental hygiene in adolescence

Hormonal changes during puberty can put teens at greater risk for getting periodontal disease. During puberty, an increased level of hormones can increased blood circulation to the gums. This can cause an increase in gum sensitivity and lead to greater reaction to irritation, including food particles and plaque. During this time, the gums may become red, swollen, and tender.

The tendency for the gums to swell in response to irritants will lessen as a teen progresses through puberty. A good home dental hygiene regimen is very important including regular brushing and flossing, as well as, regular dental care. (In some cases, periodontal therapy may be recommended to help prevent damage to the tissues and bone surrounding the teeth.)

**Advanced periodontal disease in children may be an early sign of systemic disease.** Children with severe periodontitis, especially that which is resistant to therapy, **should have a general medical evaluation.**

Important steps to prevent periodontal disease in children

- **Establish good dental hygiene habits early.** When children are 12 months old, begin using toothpaste when brushing their teeth. As gaps between the teeth close, **start flossing!**
- **Serve as a good role model.** Practice good dental hygiene habits yourself.
- **Schedule regular dental visits** for family checkups, periodontal evaluations and cleanings.
- **Check the child’s mouth** for the signs of periodontal disease: bleeding, swollen and bright red gums, receding gums and bad breath

For more information: [https://www.perio.org/consumer/children.htm](https://www.perio.org/consumer/children.htm)
Stroke can happen at any time even to teenagers, children, newborns, and unborn babies. The risk is **almost 11 in 100,000 children per year from birth through age 18.** Boys and African-American children are at higher risk than others. Stroke **remains among the top 10 causes of death in children.**

The rate of stroke among children, adolescents and young adults has been increasing at an alarming rate was revealed by a large study in the *Annals of Neurology.* [http://www.medicalnewstoday.com/articles/233834.php](http://www.medicalnewstoday.com/articles/233834.php)

In this study, researchers found that over the period 1995-2008:
- Ischemic stroke incidence rose **50%** among males aged 35 to 44 years
- Ischemic stroke incidence rose **46%** among males aged 15 to 34.
- Ischemic stroke incidence rose **51%** among boys aged **5 to 14.**
- Among females aged 35 to 44, ischemic stroke incidence rose 29%.
- Among females aged **15 to 34, ischemic stroke incidence rose 23%**.
- For girls aged **5 to 14, ischemic stroke incidence increase by just under 3%.**

Mary G. George, MD, MSPH, and team from the CDC said: "The increase in the stroke hospitalization rate from 1995 to 2008 was **30% to 37% higher** among those aged **15-44.** In the young adults and adolescents, we were surprised to see that large of an increase. Seeing this in a young population really underscores the need for adopting and maintaining healthy lifestyles from the time they are very young."

Ischemic strokes are where a blood clot (thrombus) forms and blocks blood flow to an area of the brain and accounts for about three-quarters of all strokes. Hemorrhagic strokes happen when a blood vessel surface ruptures on the brain’s filling the space between the skull and the brain with blood. In either case, there is raising pressure on the brain due to a lack of blood flow to the brain and an accumulation of blood.

Dr. George said, "We found significant increases in high blood pressure, lipid [cholesterol] disorders, diabetes, tobacco use, and obesity . . . . things we consider traditional risk factors."

One out of three ischemic stroke patients aged 15-34 had 3 stroke factors. The researchers found that common problems among patients with ischemic stroke were tobacco use, raised cholesterol and obesity.

The cause is unknown in **1/3 of childhood stroke cases, the common risk factors for ischemic stroke include:**
- Congenital heart defects
- Sickle-cell disease
- Immune disorders
- Diseases of the arteries
- Abnormal blood clotting
- Head or neck trauma
- Infections* (Most commonly, meningitis, encephalitis, and varicella or chicken pox)

**Specific symptoms that you should look for in children in children and teens include:**
- Severe headaches
- Vomiting
- Sleepiness
- Dizziness
- Loss of balance or coordination

[http://pediatricstroke.org/child_stroke.htm#Causes of Ischemic Stroke in Children](http://pediatricstroke.org/child_stroke.htm#Causes of Ischemic Stroke in Children)

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**The Gum Disease Link to Cardiovascular Diseases**

With gum disease, oral bacteria can enter the bloodstream and attach to fatty plaques on artery walls which may contribute to the forming of blood clots. A 2006 *Journal of Periodontology* study supports the idea that inflammation plays a role showing that oral bacteria provoked an inflammatory response, elevating levels of white blood cells and C-reactive protein, both of which are linked to cardiovascular disease. See more at: [http://oralhealth.deltadental.com/Search/22,HD21#sthash.7OhxXHe6.dpuf](http://oralhealth.deltadental.com/Search/22,HD21#sthash.7OhxXHe6.dpuf)
• **American Dental Association Materials 2016 Campaign** (See page one)  

• **Colgate Oral Health Education Materials**  

• **Crest The Educator's Guide to Oral Health**  
  This program provides materials that make it easy for teachers to educate their students about the importance of oral care. You will receive:
  - A program overview and objectives
  - Classroom activities
  - A take-home parent brochure

• **National Education Association Materials**  
  - [http://www.nea.org/grants/National-Childrens-Dental-Health-Month.htm](http://www.nea.org/grants/National-Childrens-Dental-Health-Month.htm)

• **USDA WICworks Resource Page Materials**  

• **National Institute of Dental and Craniofacial Research Materials**  
  - [http://www.nidcr.nih.gov/NewsAndFeatures/Announcements/ChildrensDentalHealthMonth.htm](http://www.nidcr.nih.gov/NewsAndFeatures/Announcements/ChildrensDentalHealthMonth.htm)

• **Delta Dental Materials**  

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**Health Dept. Dental Hygienist Available for Oral Health/Overall Health Presentations, Career Days, and School Health Fairs**

When planning a school visit for oral health education presentations, I like to find out what subjects the teacher is currently teaching. I try to tie in some portion of the presentation with these subjects.

In a recent visit, the presentation was tied into the history of Thanksgiving, the Solar System, and the Revolutionary War. For the subject of Thanksgiving, we discussed healthy food choices. To touch on the Solar System we talked about nutrition and how the Sun is an important source of vitamin D for healthy teeth and bones. While relating oral health to the Revolutionary War, I explained that in order to be a soldier a person was required to have at least 4 apposing front teeth. These teeth were required for soldiers to be able to tear open their gunpowder cartridges and fire their rifles, therefore, it was very important to take care of your teeth!

For more information regarding **free** classroom presentations:

Jennie M. Fleming, RDH, MEd, Dental Prevention Program  
Gwinnett, Newton, and Rockdale County Health Departments  
Jennie.Fleming@gnrhealth.com
Dental Terminology 101

**Teeth**

- **Cusp** - The pointed or rounded part of a tooth’s biting or chewing surface.
- **Bicusps & premolars** - The teeth with two rounded points located between the canines (cuspids) and the molars.
- **Centrals & laterals** - Make up the four front teeth.
- **Cuspids** - The teeth near the front of the mouth that come to a single point. Sometimes A/K/A "canines."
- **Molars** - Teeth with a broad chewing surface for grinding food, located in the back of the mouth.

**Parts of the Tooth**

- **Crown** - The white part of the tooth seen above the gums. It is covered with enamel.
- **Root** - The portion which normally is not visible in the mouth and is anchored within the bone. It is covered in cementum.

**Tooth Tissues:**

1. **Enamel** – Makes up the protective outer surface of the crown of the tooth.
2. **Dentin** – Makes up the majority of the inner surface of the tooth. It is not normally seen except on x-rays.
3. **Pulp** – This is the area inside the tooth that holds the nerves and blood vessels of the tooth.
4. **Cementum** – Makes up the outer surface of the root of the tooth. It is much softer than enamel.

**Pediatric Dentistry** - The dental specialty devoted to the treatment of children.

- **Pediatric dentist** - A specialist who treats children from birth through adolescence.
- **Nursing bottle syndrome** - Severe decay in baby teeth due to sleeping with a bottle of milk or juice. The drink’s natural sugars combine with bacteria in the mouth to produce acid that decays teeth.

**Orthodontics** - Straightening or moving misaligned teeth and/or jaws with braces and/or surgery.

- **Malocclusion** - Incorrect position of biting or chewing surfaces of the upper and lower teeth.
- **Retainer** - A device used to stabilize teeth following orthodontic treatment.

**Restorations** - Replacement of missing or damaged tooth structure with artificial materials.

- **Amalgam** - A silver filling. Used for over a century, and are proven to be safe, cost-effective, and durable.
- **Cast restoration** - A procedure using a model of the tooth (an impression) to make a casting which replaces missing parts. Example: a crown.
- **Crown/jacket/cap** - The artificial covering of a tooth with metal, porcelain or porcelain fused to metal. Crowns cover teeth weakened by decay or severely damaged or chipped.
- **Inlay** - A solid filling cast to fit the missing portion of the tooth and cemented into place. An **onlay** covers one or more tooth cusps.
- **Resin/composite** - Tooth-colored filling material used primarily for front teeth. Although cosmetically superior, it is generally less durable than other materials.

**Periodontics** - Treatment of gums, tissue and bone that supports the teeth.

- **Gingivitis** - An inflammation of the gum surrounding the teeth caused by a buildup of plaque or food particles.
- **Periodontitis/gum disease** - Chronic inflammation and destruction of supporting bone and tissue membrane around the roots of teeth.
- **Root planning** - A treatment of periodontal disease that involves scraping the roots of a tooth to remove bacteria and tartar.
Endodontics - Treatment of the root and nerve of the tooth.
  
  Periapical - The area surrounding the end of a tooth root.

Post and core - An anchor placed in the tooth root following a root canal to strengthen the tooth and help hold a crown (cap) in place.

Pulp chamber - It makes up the inside of the tooth and is in both the crown and the root of the tooth.

Root canal treatment - The removal of the pulp tissue of a tooth due to decay or injury.

Prosthodontics - Replacement of missing teeth with artificial materials, such as a bridge or denture.

  Bridges - Nonremovable tooth replacements attached to adjoining natural teeth when one or a few teeth are missing.

  Dentures - Removable artificial teeth in a plastic base that rests directly on the gums. A denture may be complete or partial depending on the number of missing natural teeth.

  Implant - A support for a bridge or denture that has been surgically placed into bone.

  Overdenture - A prosthetic device supported by implants or the roots of at least two natural teeth to provide better stability for the denture.

  Pontic - The portion of a dental bridge that replaces missing teeth.

Other Dental Terms

  Plaque - A bacteria-containing substance that collects on the surface of teeth. Plaque can cause decay and gum irritation when it is not removed by daily brushing and flossing.

  Caries - Tooth decay, which leads to a cavity.

  Prophylaxis - A professional cleaning to remove plaque, calculus/tartar (mineralized plaque), and stains to help prevent dental disease.

  Attrition - The normal wearing down of the surface of a tooth from chewing.

  Bruxism - Involuntary clenching or grinding of the teeth.

  Impacted tooth - A tooth beneath the gum tissue that lies against another tooth, under bone or soft tissue, which is unlikely to grow out on its own.

  Bleaching - A technique that lightens the color of heavily stained teeth.

  Bonding - A technique to bind a filling or filling material to a tooth. Bonding materials may be used to repair chipped, cracked, misshapen or discolored teeth or to fill in a gap between teeth.

  Veneer - A thin plastic or porcelain shell applied to the front of a tooth to restore, strengthen or improve its appearance.

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Your Health Department Dental Clinics for Children

have 3 dental clinics providing preventive and corrective treatment services to help ensure the oral health of our young clients.

Tooth decay, the main cause of dental problems in children, can be detected by a dental exam in its earliest stages. This is the best time for treatment. Our Children’s dental clinics can provide:

- Exams
- Cleanings
- X-rays
- Fluoride Treatments
- Fillings and other restorations

Buford Health Center Dental Clinic
(770) 614-2427

Lawrenceville Health Center Dental Clinic
(707) 339-5642

Norcross Health Center Dental Clinic
(770) 638-5708
Write the Names of the Parts of the Tooth in the Boxes

- [ ] Root
- [ ] Dentin
- [ ] Enamel
- [ ] Pulp
- [ ] Crown