### Office of Oral Health ■ Family Health Administration ■ Maryland Department of Health and Mental Hygiene

**Dental First Aid for Children**

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This handbook is designed to aid school nurses, school health aides, teachers, school administrators, Head Start coordinators, daycare centers and providers and other health and administrative personnel in the effective management of dental emergencies. Although these first aid procedures should provide temporary relief and assistance, they are not intended to permanently resolve a dental problem.

A local dentist should be consulted as soon as possible in most situations. If a child does not have a dentist, please call:

Your Local Health Department (see Local Dental Services page)

Maryland Medical Assistance Program (Medicaid)
Dental Dental Services: For Members - 1-888-696-9596
For Providers - 1-888-696-9598

Maryland Department of Health and Mental Hygiene, Office of Oral Health: 410-767-5300

Maryland State Dental Association: 410-964-2880
For all local health departments, federally qualified health centers and other dental resources, please refer to the Maryland Oral Health Resource Guide (www.fha.state.md.us/oralhealth)

Maryland Department of Health and Mental Hygiene
Office of Oral Health: 410-767-5300
Maryland Board of Dental Examiners: 410-402-8500
Maryland Medical Assistance Program (Medicaid)
Dental Dental Services: For Members - 1-888-696-9596
For Providers - 1-888-696-9598

Local Health Departments with a Clinical Dental Program
(Note: there is not a dental program in every county)

Allegany County: 301-759-5030
Anne Arundel County
    Annapolis Health Center: 410-222-7138
    North County Health Service Cntr.: 410-222-6861
Baltimore City
    Druid Family Health: 410-396-0840
    Eastern Dental Clinic: 443-984-3548
Baltimore County: 410-887-2781
Carroll County: 410-876-4918
Cecil County: clinic coming Summer 2009
Charles County: 301-609-6886
Frederick County: 301-600-1041
Garrett County: 301-334-7660
Harford County: 443-992-7670

Montgomery County
    Piccard Drive Health Center: 240-777-1875
    Silver Spring Health Center: 240-777-3135
    Germantown Health Center: 240-777-3290
    #7 Metropolitan Court: 240-773-0304
Prince George’s County
    Cheverly Clinic: 301-583-5900
    Suitland Health and Wellness Center: 240-492-2500 ext. 2018
St. Mary’s County: 301-475-4297
Washington County: 240-313-3253
Wicomico County: 410-334-3401
Dental Schools
DENTAL FIRST AID SUPPLIES

The following should be present in your first aid kit for use in dental emergencies:

- Disposable gloves (should be worn at all times)
- Mask (to be worn when blood may splatter)
- Eyewear (to be worn when blood may splatter)
- Cotton swabs
- Sterile gauze squares 2" x 2" or pads
- Toothbrushes
- Dental floss
- Ice pack or wet frozen washcloth
- Saline
- Flashlight
- Tongue blade or dental mouth mirror

Medications cannot be used in most schools without a written approved protocol specific to each drug and signed by a physician or dentist and written permission from a parent/caregiver.

When examining the mouth and surrounding structures, ALWAYS wash your hands (before and after) and ALWAYS wear gloves!
BROKEN, DISPLACED OR LOSS OF A TOOTH

In all occasions of oral or dental trauma, serious head injury should be ruled out. Signs and symptoms of concussion may include: nausea/vomiting, dizziness/headache, dilated pupils, cold/clammy skin.

Broken Tooth
Control any bleeding.
Avoid further trauma to the area if possible.
Apply a cold compress on the cheek next to the injured tooth to reduce swelling.
Rinse dirt from injured area with warm water.
Observe broken end of tooth for bleeding.
Find broken tooth fragments if possible. Keep tooth piece in gauze moistened with water.
Immediate referral to a dentist.

Displaced Tooth
If the tooth has been pushed up into the socket or gum by a blow, control bleeding and be supportive.

**DO NOT ATTEMPT TO PULL THE TOOTH INTO POSITION.**

Immediate referral to a dentist.
The tooth may discolor long after the original trauma and will need attention by a dentist at that time.
Loss of Permanent or Primary Tooth (Baby Tooth)

IF A PERMANENT TOOTH IS KNOCKED OUT AND IS INTACT, TIME IS CRITICAL! Contact the parent/caregiver and arrange to have the child taken to a dentist IMMEDIATELY. Many times the tooth can be successfully reimplanted and saved if accomplished within ONE HOUR. Look in the accident area for the tooth that was knocked out.

If found and dirty (prior to going to a dentist):
Gently rinse under tap water (remember to plug sink). DO NOT CLEAN OR SCRUB TOOTH! Hold tooth by the crown (top part of tooth) and gently tease tooth back into socket.
Child and/or parent/caregiver should hold tooth in socket while being transported to a dentist (the child may do this by biting on a clean gauze or cloth).

If the tooth cannot be placed back into the socket:
Place tooth in a glass of cold milk or saline (whichever is available).
If neither milk nor saline is available, have the child hold the tooth in the buccal vestibule (space between gums and cheek) while being transported to the dentist. If there is a potential of swallowing the tooth or the child is physically unable to hold the tooth in his/her mouth, place the tooth in a wet towel.
If the wound site has been contaminated by dirt or soil, record this information and send it with the injured child to aid the dentist in determining the necessity for a tetanus shot.

If a primary tooth (baby tooth) is knocked out and traumatically lost:
DO NOT attempt to replace the tooth in the child’s mouth.
Control any bleeding and check for other injuries.
Notify the child’s parent/caregiver.
Find the tooth and send it with the parent/caregiver to the dentist.
If the injury site has been contaminated with soil, check the child's records for date of the most recent tetanus shot.
TRAUMA AND INFLAMMATION
In all occasions of oral or dental trauma, serious head injury should be ruled out. Signs and symptoms of concussion may include: nausea/vomiting, dizziness/headache, dilated pupils, cold/clammy skin.

A blow (trauma) to the mouth can cause the gum tissue to swell and bleed. Evaluate the child for additional injuries if trauma caused the bleeding.

A cold compress may be applied to the area from the outside of the cheek to help control swelling.

If appropriate, while wearing gloves, apply direct pressure with a sterile 2" x 2" gauze to the injured gum or cheek to control the bleeding and contact the child’s parent/caregiver according to institutional policy.

The following can cause inflamed or irritated gum tissue and/or gingivitis:

Poor oral hygiene - this can be corrected by daily removal of plaque by tooth brushing and flossing
Puberty (hormones associated with adolescence)
Pregnancy (increased hormone levels)
Smoking (affects gum tissue)

Sudden bleeding or swelling of the gums may be the result of food or foreign body impaction. Locate and, if possible, remove the debris.

In general, red, swollen gums should be rinsed thoroughly with a warm salt water solution (containing one dissolved teaspoon of salt in an 8 oz. glass of warm water) for 15 – 30 seconds and spit out completely. The child’s parent/caregiver should be contacted for referral to a dentist if the bleeding cannot be controlled within three (3) days.

OBJECTS WEDGED BETWEEN TEETH
If an object becomes wedged between teeth:

The child may use dental floss to remove the object.

Remember to assist the child in guiding the floss gently between teeth, to make sure not to injure the gum tissue.

Do not try to remove the object with a sharp or pointed tool/instrument. This may result in injury.

If unsuccessful, contact the parent/caregiver for referral to a dentist.

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Trauma and Inflammation

Oral Ulcers and Oral Tissue Injury

Orthodontic (Braces) or Other Appliances/Possible Jaw Dislocation or Fracture

Toothache and Swelling

Tooth Extraction Complications

Tooth Eruption and Shedding Pain

Tooth Brushing and Flossing
ORAL ULCERS

Oral ulcers can be the result of:
- Aphthous lesion
- Cold/canker sore
- Fever blister or traumatic lesion

Oral ulcers can be a symptom of:
- Herpes virus
- Mumps
- German measles
- Impetigo
- Chicken pox
- Streptococcal infection

The following steps should be taken for ulcers:
- Observe the location, type and severity of lesions.
- Always wear gloves when touching lesions. After inspecting lesions and removing gloves, wash hands thoroughly.
- Take the child’s temperature.
- Administer appropriate mild over-the-counter pain medication (if needed and possible).
- Tell the child to avoid eating spicy foods.
- Apply ice to the area to provide temporary relief.
- Contact the child’s parent/caregiver for referral to a physician or dentist if fever and/or lesions persist.

ORAL TISSUE INJURY

In all occasions of oral or dental trauma, serious head injury should be ruled out. Signs and symptoms of concussion may include: nausea/vomiting, dizziness/headache, dilated pupils, cold/clammy skin.

Have the child rinse and expectorate (spit) repeatedly with warm water.

Apply firm but gentle pressure (wearing gloves after washing hands) to the bleeding area with 2” x 2” sterile gauze for at least 5 minutes. If the injury site has been contaminated with soil, check the child’s records for date of the most recent tetanus shot.

Vigorous bleeding may be expected initially.

Remove foreign body if easily visible and accessible.

Check for broken/fractured or a pulsed (knocked out) teeth and look for tooth fragments in mouth, lip and cheek.

If swelling or bruising is present, apply ice, alternating 10 minutes on and 5 minutes off (lip injury).

Notify parent/caregiver.

If bleeding still persists after 15 minutes or cannot be controlled by simple pressure, or if the injury is severe, the child should be taken to the hospital emergency room.
ORTHODONTIC (BRACES) OR OTHER APPLIANCES

If a wire or appliance becomes loose or broken and cannot be removed easily, contact the parent/caregiver to take the child to a dentist (preferably orthodontist) immediately.

If a broken appliance can be removed easily, take the following steps:
A blunt item (tongue depressor or pencil eraser) may be used to gently bend the wire so it is no longer irritating oral tissue.
If cheek or gum is impaled, ease the tissue off the wire if possible. Cover the wire with cotton gauze, cotton balls, chewing gum or wax and contact the parent/caregiver.
If the protruding wire cannot be bent, simply cover the end of it with a piece of cotton gauze, a cotton ball, chewing gum or wax so that it is no longer causing irritation.
Note: Most children with braces have orthodontic wax and know how to apply it.
DO NOT REMOVE THE WIRE. Contact the parent/caregiver for referral to the child’s orthodontist.
Do not attempt to remove the wire if it has broken off and is embedded in the cheeks, gum or tongue.

POSSIBLE JAW DISLOCATION OR FRACTURE

In all occasions of oral or dental trauma, serious head injury should be ruled out. Signs and symptoms of concussion may include: nausea/vomiting, dizziness/headache, dilated pupils, cold/clammy skin.

Note time of injury and other injuries that may be present.
If a jaw fracture or dislocation is suspected, do the following:
Contact the parent/caregiver immediately and arrange for the child to be taken to an oral surgeon or hospital emergency room;
Elevate the head and apply a cold compress;
Stabilize the patient as well as possible;
Monitor vital signs (breathing, pulse) and consciousness and record all observations.
If any loss of consciousness or difficulty breathing occurs, call your institutional emergency telephone number immediately!
TOOTHACHE AND SWELLING
The following steps should be taken for a child with suspected toothache or facial swelling:

Clean the area around the sore tooth thoroughly.

Rinse the mouth vigorously with warm salt water or use dental floss to clean out any debris.

Check the child’s temperature and observe for respiratory distress.

Administer appropriate over-the-counter pain medication if needed.

DO NOT PLACE ASPIRIN ON THE GUM OR ACHING TOOTH.

If the child’s face is swollen, apply a cold compress or ice. Alternate 10 minutes on and 5 minutes off.

If the child has a localized abscess or gum boil (with or without pain), avoid heat.

Follow-up with the child to check the outcome of the toothache or swelling 24 hours after first contact with the child.

Refer to a dentist as soon as possible.

NOTE: The local health department, the Office of Oral Health or the Maryland State Dental Association can be contacted for the names of dentists who accept emergency patients. In addition, area dental schools, hospitals with dental emergency facilities and other community dental clinics can be contacted for emergency care. (See Dental Resource List for contact information)
TOOTH EXTRACTION COMPLICATIONS

The child has been instructed by the dentist:

Not to rinse or swish for 24 hours after an extraction, as this could wash out the blood clot forming at the extraction site.

Normal drinking is permissible; however, straws should not be used for 24 hours because the suction created in the mouth could dislodge the blood clot.

Not to eat excessively cold or hot foods for 24 hours because this could dislodge the blood clot.

Not to smoke since smoking could delay tissue healing.

Not to spit or play with the extraction site (especially with the tongue) since these actions could dislodge the blood clot.

If the bleeding is determined to be more than oozing (bright red color) or is alarming the child, the following is recommended:

Fold a 2” x 2” sterile gauze pad and place on the extraction site (wearing gloves), having the child bite on it for about 30 minutes. Replace soaked 2” x 2” gauze pads as necessary.

If bleeding cannot be controlled within an hour or is extensive, contact parent/caregiver for referral to the dentist who extracted the tooth.

If the dentist cannot be contacted and bleeding is excessive, advise the parent/caregiver to take the child to a physician or hospital emergency room.
TOOTH ERUPTION AND SHEDDING PAIN

**Shedding (Losing) Primary (baby) Teeth and Teeth Pain**
Pain associated with losing primary teeth is normal. Encourage the child to remove the tooth at home. Determine if the pain is due to incomplete shedding of the primary tooth. If so, refer the child to a dentist. Advise the child to avoid the site while eating.

**Erupting Primary (baby) Teeth and Teeth Pain**
Local discomfort is common with tooth eruption and can be associated with cold, fever or diarrhea. Various treatments can be used such as refrigerated teething rings, or topical anesthetic. Eruption sites should be hard and blanched (white). If an eruption site is soft, it may indicate an eruption cyst. In this instance, contact the parent/caregiver for referral to a dentist.

**Erupting Permanent Teeth and Teeth Pain**
No treatment is necessary unless the child is experiencing prolonged pain (more than 24 hours). This may be caused by inflammation around an impacted or partially impacted tooth.

**PRIMARY TEETH**

<table>
<thead>
<tr>
<th>Upper Teeth</th>
<th>Erupt</th>
<th>Shed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central incisor</td>
<td>8-12 mos.</td>
<td>6-7 yrs.</td>
</tr>
<tr>
<td>Lateral incisor</td>
<td>9-13 mos.</td>
<td>7-8 yrs.</td>
</tr>
<tr>
<td>canine (cuspids)</td>
<td>16-22 mos.</td>
<td>10-12 yrs.</td>
</tr>
<tr>
<td>First molar</td>
<td>13-19 mos.</td>
<td>9-11 yrs.</td>
</tr>
<tr>
<td>Second molar</td>
<td>25-33 mos.</td>
<td>10-12 yrs.</td>
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<thead>
<tr>
<th>Lower Teeth</th>
<th>Erupt</th>
<th>Shed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second molar</td>
<td>22-31 mos.</td>
<td>10-12 yrs.</td>
</tr>
<tr>
<td>First molar</td>
<td>14-18 mos.</td>
<td>9-11 yrs.</td>
</tr>
<tr>
<td>Canine (cuspids)</td>
<td>17-23 mos.</td>
<td>9-12 yrs.</td>
</tr>
<tr>
<td>Lateral incisor</td>
<td>10-16 mos.</td>
<td>7-9 yrs.</td>
</tr>
<tr>
<td>Central incisor</td>
<td>6-10 mos.</td>
<td>6-7 yrs.</td>
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**PERMANENT TEETH**

<table>
<thead>
<tr>
<th>Upper Teeth</th>
<th>Erupt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central incisor</td>
<td>7-10 yrs.</td>
</tr>
<tr>
<td>Lateral incisor</td>
<td>6-9 yrs.</td>
</tr>
<tr>
<td>canine (cuspids)</td>
<td>10-11 yrs.</td>
</tr>
<tr>
<td>First premolar (first bicuspids)</td>
<td>10-12 yrs.</td>
</tr>
<tr>
<td>Second premolar (second bicuspids)</td>
<td>11-12 yrs.</td>
</tr>
<tr>
<td>First molar</td>
<td>6-11 yrs.</td>
</tr>
<tr>
<td>Second molar</td>
<td>12-13 yrs.</td>
</tr>
<tr>
<td>Third molar (wisdom teeth)</td>
<td>17-21 yrs.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Lower Teeth</th>
<th>Erupt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third molar (wisdom teeth)</td>
<td>12-13 yrs.</td>
</tr>
<tr>
<td>Second molar</td>
<td>11-13 yrs.</td>
</tr>
<tr>
<td>First molar</td>
<td>6-11 yrs.</td>
</tr>
<tr>
<td>Second premolar (second bicuspids)</td>
<td>11-12 yrs.</td>
</tr>
<tr>
<td>First premolar (first bicuspids)</td>
<td>13-14 yrs.</td>
</tr>
<tr>
<td>canine (cuspids)</td>
<td>14-16 yrs.</td>
</tr>
<tr>
<td>Lateral incisor</td>
<td>7-8 yrs.</td>
</tr>
<tr>
<td>Central incisor</td>
<td>6-7 yrs.</td>
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</tbody>
</table>
TOOTH BRUSHING

Tooth brushing (for at least two minutes, two times a day) helps to remove plaque (the leading cause of tooth decay and gum disease) from the surfaces of the teeth.

Daily brushing with a soft toothbrush that is not worn out or frayed is most effective. Toothbrushes need to be replaced every three (3) to four (4) months.

Children need help from an adult to make sure that they do not use too much toothpaste and that they brush their teeth thoroughly. For this reason, it is recommended that an adult brush the child's teeth twice a day (after breakfast and before going to bed).

Children ages 2 and over should have their teeth brushed twice a day with fluoridated toothpaste. This removes plaque, strengthens the teeth and encourages good oral hygiene practice.

Use a smear of fluoridated toothpaste for children under the age of 2 and a pea sized amount of fluoridated toothpaste for children 2 to 6 years old.

Eat balanced meals and limit foods high in sugar.

Proper tooth brushing is not difficult. Just follow these steps:

Place the toothbrush against the gum line (where teeth and gums meet). Move the toothbrush gently in small circles.

Brush the inner surfaces of the front teeth with the front part of the toothbrush. Brush the inner and outer surfaces of all teeth.

Brush the chewing surfaces of all the teeth.
FLOSSING

Flossing is primarily for removing plaque between teeth and above and below the gum line – areas a toothbrush cannot reach.

By combining tooth brushing and flossing at the same time everyday, you can thoroughly remove plaque and prevent cavities and gum disease.

Children under the age of 8 years old should not floss their teeth on their own. A parent/caregiver should assist them in proper flossing.

_Flossing is just as easy as brushing once you know how. Follow these steps:_

1. **Remove a length of floss about 18 inches long. Wrap most of the floss around the middle finger of one hand and just a few inches around middle finger on the other hand.**

2. **Hold the floss taught between your thumb and forefinger (leaving about one inch between fingers) and guide it gently between teeth. Do not snap it into gums.**

3. **Curve the floss into a C shape against the sides of each tooth. Use an up-and-down scraping motion to remove the plaque between the teeth and just under the gum line. Do not floss with a back and forth sawing motion. As the floss becomes soiled, advance to a clean section of floss and continue.**
Maryland Department of Health and Mental Hygiene
  Martin O'Malley, Governor
  Anthony G. Brown, Lt. Governor
  John M. Colmers, Secretary

Family Health Administration
  Office of Oral Health
  201 West Preston Street, 3rd Floor
  Baltimore, MD 21201
  Phone: 410-767-5300
  www.fha.state.md.us/oralhealth

The services and facilities of the Maryland Department of Health and Mental Hygiene (DHMH) are operated on a non-discriminatory basis. This policy prohibits discrimination on the basis of race, color, sex, or national origin and applies to the provisions of employment and granting of advantages, privileges and accommodations.

The Department, in compliance with the Americans with Disabilities Act, ensures that qualified individuals with disabilities are given an opportunity to participate in and benefit from DHMH services, benefits and employment opportunities.