Dental caries (tooth decay) is one of the most common
diseases of childhood. It is an infectious disease, caused
by bacteria (germs), but many factors are involved in
the process.

**How is tooth decay formed?**
Tooth decay is a spot on a tooth where minerals have
melted away and a hole has formed. This process, called
demineralization, is caused by acids that are created by
certain types of bacteria living in our mouths.

**Factors that can affect your child's risk for
developing tooth decay**

**Family history of caries**
- History of previous caries, cavities or fillings in children
under the age of 5 places a child at high risk for future decay.
- Areas of demineralization, bleeding gums or visible
plaque on teeth means bacteria that can cause cavi-
ties or infection of the gums are not being removed
regularly.
- Mother and family members with cavities means
that dietary practices or preventive habits need to
be improved.

**Weaning and other dietary habits**
- Feeding bottles containing something other than milk or
water (e.g., soda, juices) increase your child's risk for
tooth decay.
- High frequency of sugar containing foods (candy,
sugary foods, beverages with sugar), can increase
acid production and contribute to mineral loss and
tooth decay.

**Oral hygiene and adequate fluoride**
- Poor oral hygiene helps build up of acid producing
bacteria as plaque in your child's mouth.

- Helping your child to brush their own teeth will
ensure proper removal of plaque and development
of healthy habits.
- Fluoride toothpaste can help prevent tooth decay by
reducing the loss of minerals and reversing the de-
minalization process at the early stages of decay.
- Drinking water that contains proper amount of fluoride
is an easy, safe and effective way to reduce tooth
decay.

**Special health care needs**
- Special health care needs or disabilities and medical
conditions may make it difficult for some children
and their caretakers to clean their child's teeth.
- Medicines that produce a “dry mouth” or contain high
levels of sugar put these children at higher risk for
tooth decay.
- Braces, retainers or other orthodontic appliances often
trap plaque and make it difficult to remove acid-
producing bacteria.

**Dental home and access to dental/health care**
- Regular dental check-ups can help find decay in its
early stages.
- Fluoride treatments by health professionals can
provide protection against cavities and help repair
of damaged teeth.
- Dental sealants are usually placed on the biting
surfaces of the “back teeth” to keep plaque out and
help prevent decay.
- Caries removal/treatment can help keep oral health in
best possible condition.
- Poverty, social deprivation and low education of parents
are examples of circumstances that may indicate
barriers to accessing dental care and increased caries
risk.

It is important to make sure your child’s teeth stay
healthy. Visit www.ucsfchildcarehealth.org or call the
Healthline at (800) 333-3212.

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**References and Resources:**
Health Risk Assessment Timing and Establishment of the
Dental Home. PEDI-ATRICS Vol. 111 No. 5 May 2003, pp.
1113-1116. Online at http://aappolicy.aappublications.org/
cgi/reprint/pediatrics;111/5/1113.pdf
California First Smile online at http://first5oralhealth.org

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PEDEIDRIC DENTISTRY

Does my child need to be taken to a pediatric dentist?
Pediatric dentists are specially trained to handle problems particular to children, such as dental developmental difficulties and root canals on adult teeth that have not fully formed. However, most children are treated by general dentists. A general dentist often has a relationship with the entire family and therefore has a great deal of family history knowledge, which may apply to your child. If you're having trouble deciding on the type of dentist to use for your child, ask your family dentist or your child's pediatrician for suggestions.

When will my child lose his/her baby teeth?
Children will begin losing their teeth at approximately age 4. They will usually lose their front teeth first. Children will continue to lose baby teeth until age 12 or 13 when all of the permanent teeth finally erupt.

Why is it important to fix baby teeth that have decay?
It is very important to maintain baby teeth because these teeth hold space for the future eruption of permanent teeth. If a baby tooth decays or is removed too early, the space necessary for the permanent tooth is lost and can only be regained through orthodontic treatment. Infected baby teeth also can cause permanent teeth to develop improperly, resulting in permanent enamel defects and weaker teeth.

What can I do to protect my child's oral health at home?
Clean your infant's gums with a clean, damp cloth. Ask your dentist if you may rub a tiny dab of toothpaste on the gums. As soon as the first teeth come in, begin brushing them with a small, soft-bristled toothbrush and a pea-sized dab of fluoride toothpaste. Help a young child brush at night, which is the most important time to brush, due to lower salivary flow and higher susceptibility to cavities and plaque. By approximately age 5, your child can learn to brush his or her teeth with proper parental instruction. The best way to teach a child how to brush is to lead by good example. Allowing your child to watch you brush your teeth teaches the importance of good oral hygiene.

How do I prepare my child and myself for the first visit?
Before the visit, ask the dentist what procedures will be performed so there are no surprises. Plan a course of action to manage your child's reaction to the visit. Some children may be non-cooperative. Talk to your child about what to expect and build excitement as well as understanding about the upcoming visit. Bring your child's medical records to help you complete the medical history forms before the appointment.

> For more information, visit www.agd.org or call 1.877.2X.A.YEAR (1.877.292.9327).
DENTAL EMERGENCIES

Dental emergencies can be avoided by taking some simple precautions, such as wearing a mouth guard during sports and recreation and staying away from hard food such as candy that may crack a tooth. Accidents do happen however, and it is important to know what actions to take immediately. Injuries to the mouth may include teeth that are knocked out (avulsed), forced out of position and loosened (extruded) or fractured. In addition, lips, gums or cheeks can be cut. Oral injuries are often painful and should be treated by a dentist as soon as possible.

What do I when a tooth is knocked out?
Immediately call your dentist for an emergency appointment. Handle the tooth by the crown, not the root. Touching the root (the part of the tooth below the gum) can damage cells necessary for bone re-attachment. Gently rinse the tooth in water to remove dirt. Do not scrub. Place the clean tooth in your mouth between the cheek and gum to keep it moist. It is important not to let the tooth dry out. If it is not possible to store the tooth in the mouth of the injured person, wrap the tooth in a clean cloth or gauze and immerse in milk or saline solution.

Getting to a dentist within 30 minutes can make the difference between saving and losing a tooth.

What do I do if the tooth is pushed out of position?
Attempt to reposition the tooth to its normal alignment using very light finger pressure, but do not force the tooth. Bite down to keep the tooth from moving. The dentist may splint the tooth in place to the two healthy teeth next to the loose tooth.

What about when the tooth is fractured?
Rinse mouth with warm water and use an ice pack or cold compress to reduce swelling. Take ibuprofen, not aspirin, for pain. Minor fractures can be smoothed by your dentist with a sandpaper disc or simply left alone. Restorative procedures can also be done to fix the tooth. In either case, treat the tooth with care for several days. Moderate fractures include damage to the enamel, tissue and/or pulp. If the pulp is not permanently damaged, the tooth may be restored with a full permanent crown. If pulp damage does occur, further dental treatment will be required. Severe fractures often mean a traumatized tooth with slim chance of recovery.

What should I do when the tissue of my mouth is injured?
Injuries to the inside of the mouth include tears, puncture wounds and lacerations to the cheek, lips or tongue. The wound should be cleaned right away with warm water, and the injured person taken to a hospital emergency room for the necessary care. Bleeding from a tongue laceration can be reduced by pulling the tongue forward and using gauze to place pressure on the wound.

Can I somehow prepare for dental emergencies?
Yes, by packing an emergency dental care kit including:

- Dentures phone numbers (home and office)
- Saline solution
- Handkerchief
- Gauze
- Small container with ice
- Ibuprofen (not aspirin: Aspirin is an irritant that can cause excessive bleeding in a dental emergency.)

For more information, visit www.agd.org or call 1.877.2X.A.YEAR (1.877.292.9327).
Uh Oh!

People risk breaking their teeth or otherwise injuring their mouths while eating, playing, exercising, and participating in other seemingly harmless activities. It's important to understand what to do in case of a dental emergency so that your tooth can be repaired when you are able to see a dentist.

What are dental emergencies and how can I avoid them?
Dental emergencies can occur when your tooth breaks, cracks, becomes loosened, or is knocked out completely. Sometimes dental crowns come off of teeth. Lips, gums, or cheeks can be cut.

Dental emergencies can be avoided by taking simple precautions, such as wear- ing a mouthguard during sports activities to prevent teeth from breaking or being knocked out, and avoiding hard foods that may crack or break your teeth—whether you have your natural teeth or you wear dentures. Oral injuries often are painful and should be treated by a dentist as soon as possible.

What should I do if a tooth is knocked out?
If your tooth is knocked out, immediately call a dentist for an emergency appointment. It is important to see your dentist within an hour of when your tooth is knocked out for the best chance of the tooth surviving the trauma. Handle the tooth by the crown (the top), not by the root (the pointed part on the bottom). Touching the root of the tooth can damage cells that are necessary to reattach the tooth to the bone. Gently rinse the tooth in water to remove dirt. Do not scrub the tooth! Place the clean tooth in your mouth between the cheek and gum to keep it moist. It is important not to let the tooth dry out. If it is not possible to store the tooth in the mouth, wrap the tooth in a clean cloth or gauze and immerse it in milk or saline solution (the solution used for contacts). If a baby tooth is knocked out, the tooth should not be replanted. The patient should be seen as soon as possible to make sure there are no remaining pieces of the tooth.

What should I do if my tooth is pushed out of position?
If your tooth is loosened and pushed out of position, call your dentist right away for an emergency appointment. In the meantime, attempt to reposition it to its normal alignment using very light finger pressure—but don't force it!

How should I handle a chipped or fractured tooth?
There are different types of tooth fractures. Chipped teeth are minor fractures. Moderate fractures include damage to the enamel, tissue, and/or pulp. Severe fractures usually mean that a tooth has been traumatized to the point that it cannot be recovered.

If you fracture a tooth, rinse your mouth with warm water and use an ice pack or cold compress to reduce swelling. Take ibuprofen, not aspirin, for pain. Your dentist can smooth out minor fractures with a sandpaper disc. Alternatively, restorative procedures may be needed to fix the tooth.

If you wear dentures and a tooth breaks or chips, wear your spare dentures until you can visit your dentist. If you do not have a spare set or cannot get to the dentist's office soon, use cyanoacrylate (heavy-duty, quick-drying "super" glue) to glue the tooth or the piece of the tooth back into place. Remember—this is only a temporary measure until your dentist can properly repair your tooth and should only be used for dentures! Never attempt to glue a natural tooth or part of a natural tooth back into place!

What should I do if the tissue of my mouth is injured?
Injuries inside the mouth include tears or cuts, puncture wounds, and lacerations to the cheek, lips, or tongue. The wound should be cleaned immediately with warm water, and the injured person should be taken directly to an oral surgeon for emergency care. If you can't get to an oral surgeon, the patient should be taken to the hospital.

Bleeding from a tongue laceration can be reduced by pulling the tongue forward and using gauze to place pressure on the wound.
First Steps to a Healthy Smile

**Tooth decay** is the number-one dental problem among preschoolers, but it can be prevented. Starting children with good dental habits from an early age will help them grow up with healthy smiles. The following is important information about how to care for your child’s teeth from birth to 24 months of age and beyond.

**Baby teeth are important!**

Tooth decay can develop as soon as the first tooth appears. It’s important to care for your child’s baby teeth because they act as placeholders for adult teeth. If baby teeth are lost too early, the teeth that are left may move and not leave any room for the adult teeth to come in. And tooth decay in baby teeth can be painful and cause health problems like infections, which can at times be life-threatening. It can also lead to teasing and speech development problems.

**How to care for your child’s teeth**

**Birth to 12 months**

- **Good dental habits should begin before the first tooth appears.** After feedings, gently brush your baby’s gums using water on a baby toothbrush that has soft bristles. Or wipe them with a clean washcloth.

- **Ask about fluoride.** After the first tooth appears, ask your child’s doctor if your baby is getting enough fluoride. Many experts recommend using a fluoride-free toothpaste before the age of 2, but check with your child’s doctor or dentist first.

- **Schedule your baby’s well-child visits.** During these visits your child’s doctor will check your baby’s mouth.

- **Schedule a dental checkup.** If your baby is at high risk for tooth decay, your child’s doctor will recommend that your baby see a dentist.

**12 to 24 months**

- **Brush!** Brush your child’s teeth 2 times a day using water on a baby toothbrush that has soft bristles. The best times are after breakfast and before bed.

- **Limit juice.** Make sure your child doesn’t drink more than 1 small cup of juice each day and only at mealtimes.

- **Consult with your child’s dentist or doctor about sucking habits.** Sucking too strongly on a pacifier, a thumb, or fingers can affect the shape of the mouth and how the top and bottom teeth line up. This is called your child’s “bite.” Ask your child’s dentist or doctor to help you look for changes in your child’s bite and how to help your child ease out of his sucking habit.

- **Schedule a dental checkup.** Take your child for a dental checkup if he has not had one.

**24 months**

- **Brush!** Help your child brush her teeth 2 times a day with a child-sized toothbrush that has soft bristles. There are brushes designed to address the different needs of children at all ages, ensuring that you can select a toothbrush that is appropriate for your child. Encourage her to brush her teeth on her own. However, to make sure your child’s teeth are clean, you should brush them again. If your child doesn’t want her teeth brushed, it may help to turn it into a game. For example, the toothbrush can look upstairs and downstairs in the house for missing treasure in the teeth.

- **Use fluoride toothpaste.** You can start using fluoride toothpaste, which helps prevent cavities. Teach your child not to swallow it. Use a pea-sized amount or less and smear the paste into the bristles. Swallowing too much fluoride toothpaste can make white or brown spots on your child’s adult teeth. If your child doesn’t like the taste of the toothpaste, try another flavor or use plain water.

- **Floss.** You can begin flossing your child’s teeth as soon as 2 teeth touch each other. But not all children need their teeth flossed at this age, so check with your dentist first.

- **Schedule a dental checkup.** Take your child for a dental checkup at least once a year.
Eating and tooth decay

Parents, especially if they have a history of cavities, can pass germs that cause cavities and gum disease if they share food or drinks with their children. Germs can also be spread when parents lick their children's spoon, fork, or pacifier. This is why it is important for parents to not share food or drinks with their children.

The following are other ways parents can help prevent tooth decay in their babies and children:

- If you put your child to bed with a bottle, fill it only with water.
- If your child drinks from a bottle or sippy cup, make sure to fill it only with water when it's not mealtime.
- If your child wants a snack, offer a healthy snack like fruits or vegetables. (To avoid choking, make sure anything you give your child is soft, easy to swallow, and cut into small pieces no larger than one-half inch.) Avoid sweet or sticky snacks like candy, cookies, or Fruit Roll-Ups. There is sugar in foods like crackers and chips too. They should only be eaten at mealtime.
- If your child is thirsty, give him water or milk. If your child drinks milk at bedtime, make sure to clean his teeth afterward. Don't let your child sip drinks that have sugar and acid, like juices, sports drinks, flavored drinks, lemonade, soda pop, or flavored teas.

What is a cavity?

Your child's teeth are protected by an outer coating called enamel. Tooth decay happens when germs in the mouth mix with sugar in foods and drinks. The germs then make acids that break down the enamel. Cavities are holes in the enamel caused by tooth decay.