



CARE FOR KIDS



Early & Periodic Screening, Diagnosis & Treatment

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Dental Screening and Risk Assessment for the Very Young Child

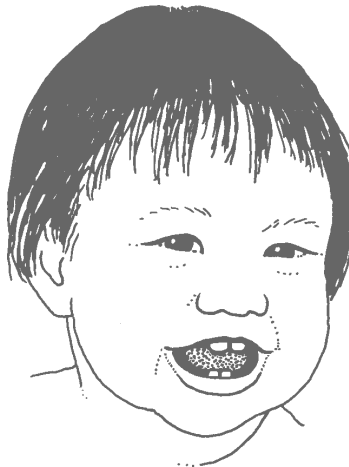
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Tooth decay remains one of the most common diseases of childhood. It is even more prevalent among children from low-income families — 80% of decay occurs in just 25% of American children. These children also develop caries at an earlier age.

The first step in preventing dental decay is to screen children to identify those who are at risk. The American Academy of Pediatric Dentistry (AAPD) recommends that children be examined by a dentist when they are a year old, or within 6 months of the eruption of the first tooth. However, most low-income, high-risk children do not see a dentist before the age of three. To complicate matters further, a 1995 survey of Iowa dentists found that only 26% were willing to provide dental exams to very young children.

For all of these reasons, it is important that non-dentists — dental hygienists, physicians, nurses, and other health care providers — provide dental screenings as part of a young child's health care. Whenever possible, each child should also be referred to a dentist, so that each will have a "dental home" throughout childhood.



The dental screening

An oral screening exam should:

- Determine the state of the child's oral health
- Identify abnormalities or pathologies, including caries
- Provide instruction in how to prevent dental disease
- Capitalize on "teachable moments" during which anticipatory guidance can be provided to the child's parents

Screenings can typically be carried out with a small armamentarium — a mouth mirror, soft toothbrush, rubber gloves, and a light source. Children younger than three are often uncooperative during oral exams. Parents need to be reassured that crying is normal, and that the exam will not hurt the child.



Caries risk assessment

Most children enrolled in EPSDT are from low-income families, and are thus at higher risk for dental decay than other children. Not all low-income children experience similar levels of dental disease, however. Individual risk assessment allows interventions to be targeted to the children who need it most.

Tooth decay results from the interaction of bacteria, dietary carbohydrates, and tooth enamel. Decay can appear on a tooth's chewing surface, or on one of the "smooth surface" sides of a tooth. Some indications that a child is at risk for caries include:

History of previous caries. One of the best predictors of future caries is a history of dental decay. With children under the age of 5, a history of caries automatically places a child at very high risk for future decay. Evidence of previous caries includes current untreated caries (visible "holes" or cavities in the teeth) as well as fillings or caps.

Stained fissures. When cavities begin on the chewing surface, the first visible sign of decay is often stained grooves that cannot be adequately cleaned with a toothbrush. Deep crevices on the chewing surfaces of teeth can trap food and bacteria and lead to decay. The pit and fissure surfaces of baby teeth are generally not stained in appearance, and therefore discolorations in these sites that cannot be removed with a toothbrush should be viewed with suspicion.

White spot lesions. The first signs of a cavity starting on a smooth tooth surface is the formation of a

"white spot lesion." These pre-cavity lesions result from enamel being demineralized by the acid produced by bacteria contained in plaque. These lesions are generally found near the gum line where plaque accumulates, and look chalky and white.

Visible plaque. Plaque appears as a soft, white- or tooth-colored coating that generally accumulates first near the gum line. Research indicates that the presence of visible plaque on the teeth of young children is a reliable indicator of caries risk.

Perceived risk by health professionals. Many dentists, hygienists and other health professionals can predict caries risk status with a high degree of reliability. An examiner's "gut reaction" regarding a child's risk for caries should not be ignored.

Establishing a "dental home"

Whenever possible, each child screened should be referred to a dentist. It is important to establish a dental home for each child, one that will provide diagnostic, preventive, restorative, and emergency care throughout childhood.

References

- American Academy of Pediatric Dentistry Home Page, at <http://aapd.org/index.html>, has information for children, parents, teachers, and health care providers.
- "Dispelling the myth that 50 percent of U.S. school children have never had a cavity" (1995). *Public Health Report* 110:522-30.
- "Sociodemographic distribution of pediatric dental caries..." (1998). *Journal of the American Dental Association* 129:1229-38.
- "Risk assessment and caries protection" (1998). *Journal of Dental Education* 62:762-770.

To proceed with a dental screening:

- Position the child so that her head is stabilized and you have direct vision into the oral cavity. For best vision, lay the child on her back on an exam table. Or sit knee-to-knee with the parent, and have the child straddle the parent's lap, reclining her head into your lap.
- Use a good light source during the exam. A penlight or flashlight will suffice.
- With gloved hands, retract the lips from the teeth and evaluate for plaque.
- Use a soft toothbrush to brush all surfaces of the teeth, removing any plaque, and examine all tooth surfaces.
- Use the dental mirror to carefully examine the back (inside) surface of the upper front teeth. This is where baby bottle tooth decay often appears first.
- Following brushing, all teeth should have a uniform healthy white appearance. Any stains, discolored areas, holes, or chalky-white areas are cause for concern.

Concerns Arise about Some Vaccines

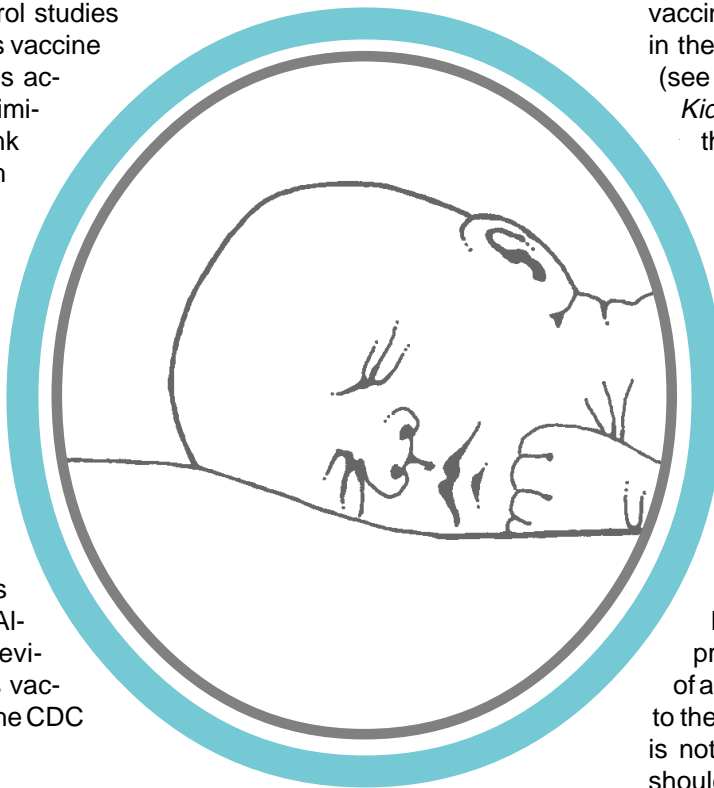
Rotavirus vaccine put on hold

This summer the US Centers for Disease Control and Prevention (CDC) recommended that health care providers postpone giving infants the rotavirus vaccine, pending completion of case-control studies to determine whether this vaccine puts children at risk. This action was taken when preliminary data appeared to link the rotavirus vaccine with intussusception, a condition in which the intestine telescopes upon itself.

Between August 1998, when the vaccine was approved, and July 7, 1999, 13 cases of intussusception occurred in infants within a week of vaccination. Since July, additional cases have been identified. Although no conclusive evidence links the rotavirus vaccine to intussusception, the CDC recommends that:

- Clinicians should postpone giving rotavirus vaccine to children until results of CDC case-control studies are in, probably in November.
- If a child develops any of the symptoms of intussusception (vomiting, black stools, severe pain, abdominal bleeding) within three weeks of vaccination, immediate medical care should be sought.

■ All cases of intussusception which occur following administration of rotavirus vaccine should be reported to the Vaccine Adverse Event Reporting System (VAERS), at 800-822-7967.



Mercury in vaccines

The American Academy of Pediatricians and the US Public Health Service also issued a joint statement in July regarding thimerosal, a mercury-containing preservative found in some vaccines (see chart below). Infants who receive thimerosal-containing vaccines at several visits may be exposed to more mercury, a known neurotoxin, than is recom-

mended by federal guidelines. This is of particular concern in very small, premature infants.

Mercury exposure and hepB vaccination

Adjusting the timing of hepatitis B vaccinations within the ranges given in the AAP immunization schedule (see Summer '99 *EPSDT Care for Kids Newsletter*) can minimize thimerosal exposure for very young infants. The immunization schedule for Infants born to HBsAG-positive women and women who were not tested for HBsAG during pregnancy remains the same.

Infants born to HBsAG-negative women may receive COMVAX, a thimerosal-free hepB vaccine, beginning at the 2-month visit. (COMVAX, a combination hepB/Hib vaccine, is not approved for use before 6 weeks of age due to decreased response to the Hib component). If COMVAX is not available, hepB vaccination should begin at 6 months. Either of these approaches allows for the completion of the series by 18 months of age.

Small, premature infants should not be vaccinated for hepB until the infant reaches a size and developmental level that corresponds to that of a term infant.

Work is underway to produce thimerosal-free vaccines. In the meantime, the AAP and the Public Health

Service continue to recommend that children be immunized against the diseases listed in the 1999 Recommended Childhood Immunization Schedule. Health care providers are advised to discuss all vaccines with parents, and to point out that the risks resulting from not vaccinating children still outweigh those posed by thimerosal-containing vaccines.

Visit the American Academy of Pediatrics web site for more information about:

- **Rotavirus vaccine**, at <http://www.aap.org/advocacy/archives/julrotapub.html>
- **Thimerosal in vaccines**, at <http://www.aap.org/policy/RE9935.html>

Thimerosal-free vaccines

Anthrax	Anthrax vaccine (Bioport)
DTaP	Infanrix
Hib	ActHIB COMVAX OmniHIB PedvalHIB liquid
HepA	Havrix Vaqta
HepB	COMVAX HBIG (all products)
IPV	IPOL
Lyme	LYMERix
MMR	MMR-II
OPV	Orimune
Pneumococcal	Pneumovax 23
Rabies	IMOVAX Rabavert
Rotavirus	Rotashield
Typhoid fever	Typhim Vi Typhoid TY21a Typhoid Vaccine (Wyeth-Ayerst)
Varicella	Varivax
Yellow fever	YF-vax

Vaccines that contain Thimerosal

DT	All
DTaP	Acel-Imune Tripedia Certiva
DTwP	All
DTwP-Hib	Tetramune
Hib	TriHIBit HibTITER ProHIBit
HepB	Engerix-B Recombivax HB
Influenza	All
Meningococcal	Menomune A, C, AC, A/C/Y/W-135
Pneumococcal	Pnu-Imune
Rabies	Rabies Vaccine Adsorbed
Td	All
TT	All

EPSDT Best Practices

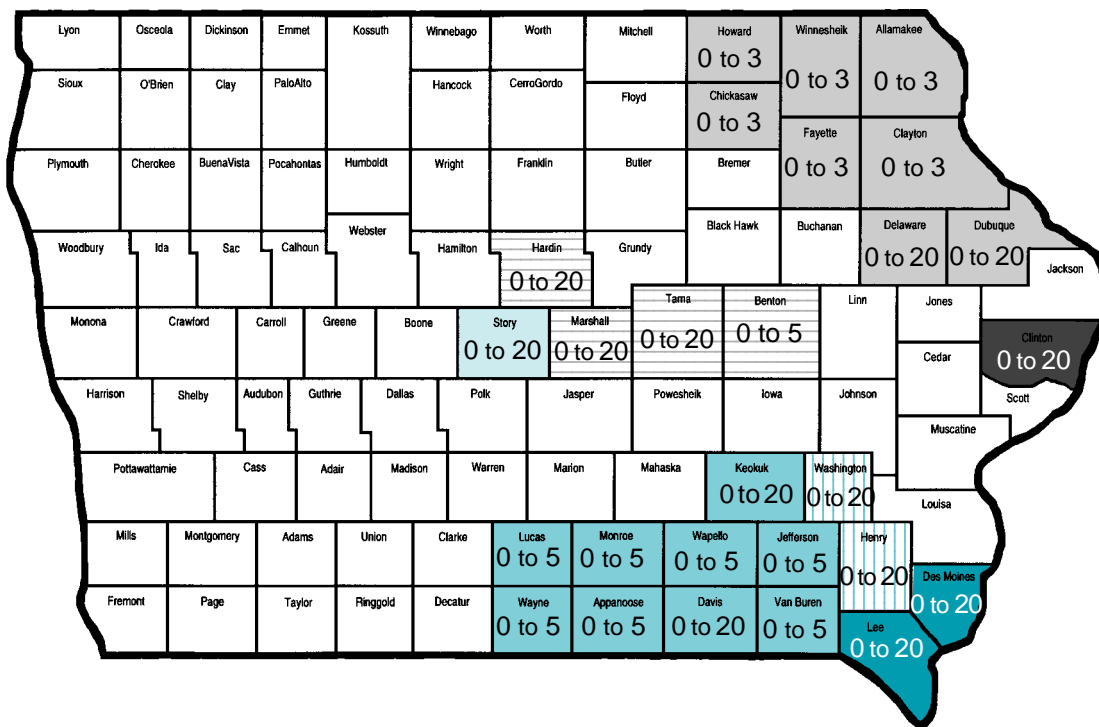
A new feature highlighting community strategies for serving children enrolled in EPSDT Care for Kids

Dental hygienists in seven child health centers that serve 26 Iowa counties are providing dental care for children enrolled in Iowa's EPSDT Care for Kids program. These services include:

- Dental health education
- Fluoride varnish treatment
- Dental health screenings
- Referral to dentists as needed

Some counties provide services to all children, while others focus on reaching specific age groups, particularly children from birth to age three. Working together, community providers are finding ways to better utilize valuable resources. As a result, more children are getting the dental care they need.

Child health agencies that provide EPSDT dental health screening services for Iowa children



KEY

American Home Finding

Marty Phipps, RDH
515-682-8784

- Appanoose - 0 to 5 yrs
- Davis - 0 to 20 yrs
- Jefferson - 0 to 5 yrs
- Keokuk - 0 to 20 yrs
- Lucas - 0 to 5 yrs
- Monroe - 0 to 5 yrs
- Van Buren - 0 to 5 yrs
- Wapello - 0 to 5 yrs
- Wayne - 0 to 5 yrs

Clinton County Board of Health

Lynn Ross, RDH
319-659-8148

Clinton - 0 to 20 yrs

Des Moines County Board of Health

319-753-8215

- Des Moines - 0 to 20 yrs
- Lee - 0 to 20 yrs

Dubuque VNA/ Finley

Jacque Roseliep, RDH
319- 556-6200

- Allamakee - 0 to 3 yrs
- Chickasaw - 0 to 3 yrs
- Clayton - 0 to 3 yrs
- Delaware - 0 to 20 yrs
- Dubuque - 0 to 20 yrs
- Fayette - 0 to 3 yrs
- Howard - 0 to 3 yrs
- Winneshiek - 0 to 3 yrs

Marshalltown Medical and Surgical

515-752-1524

- Hardin - 0 to 20 yrs
- Marshall - 0 to 20 yrs
- Tama - 0 to 20 yrs
- Benton - 0 to 5 yrs

Mid Iowa Community Action

Barb Fiori, RDH
515-292-1944

Story - 0 to 20 yrs

Washington County PHN

Nancy Patterson, RDH
Sheila Temple, RDH
Mary Jo Zern, RDH

- Henry - 0 to 20 yrs
- Washington - 0 to 20 yrs

Dental Health Care and Anticipatory Guidance for Children from Birth to Three Years Old

Dental health care for the very young child is important. Children with healthy teeth and gums will:

- Chew more easily and gain more nutrients from what they eat
- Speak more quickly and clearly
- Have better overall health – oral diseases can affect the rest of the body
- Be more confident about their appearance

Age	Dental development	Dental care for babies	Nutrition and feeding	Behaviors and safety
0–6 mo.	<ul style="list-style-type: none"> ● Most babies begin teething at about 6 months ● The two front teeth in the lower jaw usually appear first, followed by the two teeth in the upper jaw 	<ul style="list-style-type: none"> ● Baby's mouth and teeth need cleaning each day, using a soft cloth, during bath or after feeding ● Discuss use of fluoride, ways it can be provided, issues of toxicity and storage ● Baby should first visit the dentist within six months of first tooth 	<ul style="list-style-type: none"> ● To prevent "baby bottle caries," never let a baby sleep with a bottle in her mouth ● If a baby wants a bottle between meals or at bedtime, give only water — milk (breast and cows'), formula, juice, and soft drinks can all lead to decay 	<ul style="list-style-type: none"> ● A teething baby may want to chew on a cool teething ring or damp washcloth (teething biscuits can cause decay) ● Use teething ointments only on advice of health care provider ● Babies put everything in their mouths; be careful about choking ● When baby begins eating solid food, introduce use of tippy cup ● Discuss how to "childproof" home and day care settings
12 mo.	<ul style="list-style-type: none"> ● Teething continues; eventually baby will have 10 upper and 10 lower "baby teeth" 	<ul style="list-style-type: none"> ● When teeth appear, parent should put fluoride toothpaste – a pea-sized amount or a little less — on a soft cloth or baby toothbrush and gently clean the teeth each day ● Review fluoride status 	<ul style="list-style-type: none"> ● Encourage weaning from bottle, use of tippy cup ● Avoid foods that can cause choking, such as: hot dogs (<i>whole and "coin" slices</i>) peanuts hard candy popcorn raw carrots grapes raisins 	<ul style="list-style-type: none"> ● Discuss importance of having a family dentist; explain what first visit will entail ● Ask if day care provider has names of child's dentist and doctor, in case of emergency ● Sucking—of thumb, fingers, pacifier – is common and normal for babies and young children ● Review childproofing strategies
18 mo.	<ul style="list-style-type: none"> ● Teething continues 	<ul style="list-style-type: none"> ● Parent should brush child's teeth twice a day with a small amount of fluoride toothpaste ● Let youngster help, but parent should supervise until child is 6 years old ● Have child spit out toothpaste and rinse ● Review fluoride status 	<ul style="list-style-type: none"> ● Some foods (sugars, starches) are safer for teeth if eaten with meals ● Healthy snack foods include fresh, soft (or cooked) veggies and fruits, whole grain crackers, cheese bits ● Offer 2-3 snacks each day ● Variety is good for baby; change snack foods often 	<ul style="list-style-type: none"> ● Discuss how parents can prepare for emergencies, what parent should do in case of choking, dental trauma ● Review childproofing strategies
2 yrs. and 3 yrs.	<ul style="list-style-type: none"> ● Most children finish teething between 24 and 36 months ● Discuss tooth wear, teeth grinding (bruxism), occlusion (position of teeth and jaws) 	<ul style="list-style-type: none"> ● Parents should help child brush after each meal ● Review fluoride status 	<ul style="list-style-type: none"> ● Encourage child to have good eating habits ● Avoid sweetened cereals, sugary snacks, soft drinks 	<ul style="list-style-type: none"> ● The AAPD says that for most children there is no reason to worry about a sucking habit until the permanent front teeth are ready to come in ● Encourage yearly dental check-ups ● Review childproofing strategies



The Iowa Child and Family Health Survey

The Iowa Department of Public Health, along with The University of Iowa Child Health Specialty Clinics and the UI Public Policy Center, will be conducting a survey to guide future development of child health services and systems such as the EPSDT program. The Department would greatly appreciate suggestions for the contents of that survey from child health care professionals. Please send your responses to the following three questions to:

Jean C. Willard
University of Iowa Public Policy Center
227 South Quadrangle, Iowa City, Iowa 52242

Fax (319) 335-6801, Phone (319)335-6815
E-mail jean-willard@uiowa.edu

1 What do you feel are the 5 most important health issues facing children and families in Iowa today?

2 We also are preparing a statewide household telephone survey to assess the health and well-being of children and families in Iowa. Please list the two questions you would most like to see asked on the survey.

3 Please indicate the perspective from which you answered these questions (for example, pediatrician, clinic administrator, nutritionist, nurse, parent, etc.).

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Provider Services: **1-800-338-7909**

If you have questions about **clinical issues** and EPSDT Care for Kids services, please call
Edward Schor, MD: **1-800-383-3826**

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