



# CARE FOR KIDS



Early & Periodic Screening, Diagnosis & Treatment

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## The Six-month Exam

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A recently published survey suggests that 79% of parents of very young children want more information about child-rearing from their child's health care provider. This same survey shows that only 39% of parents read or look at a book with their child on a daily basis. In addition, it finds that breast-feeding and daily reading are much more likely if encouraged by the health care provider.

Routine health care visits are an ideal opportunity to discuss not just "medical" issues, but parenting issues as well, and to offer guidance on a variety of topics. *Bright Futures Guidelines for Health Supervision* (see "Resources," page 2) suggest several general interview questions that can be used at any visit. These questions are open-ended, to encourage discussion.

The visit can be started with "How are you? How are things going?" Inquire about any major changes or stresses in the family. Discuss what the parents enjoy most, and least, about their baby. Ask them how their other children are dealing with the new baby, and explore family activities [see Insert Page 2].



Obtain details about the baby's feeding patterns, sleep routines, and how the family approaches discipline. Inquire about whether

the parents have time to themselves, and make sure no one has ever hurt the child or parent. Determine whether there are guns in the house, and how they are stored. Explore neighborhood safety.

If both parents work, ask about how this is going, and about the type of childcare being used.

It is important during early health care visits to determine if anyone is smoking in the home. Inquiries should also be made about indications of parental depression. Ask if the parent has felt sad or depressed in the last week, or for more than two weeks during the past year. Parental depression can significantly affect a child's development. If you suspect depression, the parent needs to be diagnosed and referred for treatment as soon as possible.

It is crucial to do developmental surveillance at all health care visits. Observe how the baby communicates her needs and responds to others. Specific milestones to be met at six months include:

- Babbles reciprocally
- Says *Da Da* or *Ba Ba*
- Shows differential recognition of parents
- Smiles and laughs
- Squeals
- Imitates razzing noise
- Turns to face sounds
- Grasps and mouths objects
- Holds head steady when pulled into a sitting position
- Rakes in small objects with arms
- Rolls
- Self-comforts
- Sits up with support
- Stands briefly with support
- Transfers a cube from hand to hand
- May have first tooth

Observe the interactions between parent and child. Do they talk, look, and play with each other? Is the parent following safe practices in the exam room?

## The physical exam

A complete physical exam should be performed. Specific attention should be paid to:

- Head circumference
- Length
- Weight
- Weight for length
- Red reflex
- Strabismus
- Tooth eruption
- Hip dysplasia

- Muscle tone
- Use of extremities
- Foot deformities
- Any signs of abuse

Screens should include hematocrit; appropriate immunizations should be given.

## Anticipatory guidance

- Encourage parents to start solid foods if this has not already been done. They should also introduce the use of a sippy cup.
- Encourage parents to brush their child's teeth, and explore the child's daily fluoride level exposure.
- The family should develop a bedtime routine, and the child should have his own bed. Small stuffed animals or soft blankets can help with this transition if needed.
- Tell parents to read to their child daily if that hasn't already been happening. Suggest that it can be nice to incorporate reading into the bedtime routine; this can be another way to be sure reading happens every day. Talking, singing songs, and playing music for infants is also very important.
- Discussions about safety are also timely during the six-month visit. Encourage parents to childproof their home, using gates on stairways, and window guards. Poisons, medications, and small or dangerous objects should be stored out of reach of the baby.
- Discuss signs of illness, and talk with parents about when

it is important to call the doctor. Learn how they would handle a health emergency with their baby. Emergency phone numbers should be kept by the phone.

- Remind parents to keep their baby's car seat facing the rear of the car for the child's first year. Warn them against the use of walkers, which can cause injury.
- Warn the parents that the child may soon develop anxiety around strangers, and may have difficulty separating from parents.
- Explore the family's need for financial assistance, and direct them to services as appropriate.

Each health maintenance visit is an ideal opportunity to explore the health, and the well-being, of both the child and the family, and to offer guidance that can promote the child's optimal development.

## Resources

*American Academy of Pediatric Guidelines for Health Supervision III.* AAP Publications, P.O. Box 747, Elk Grove Village, IL 60009-0747.

*Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents.* National MCH Clearinghouse, 8201 Greensboro Dr. Suite 600, McLean, VA 22102.

Age-specific *Bright Futures Encounter Forms* help providers make health care visits as productive as possible; forms also provide questions to promote anticipatory guidance. Forms for families help them set goals. Both can be found online at <http://www.brightfutures.org/healthform2.index.html>.

McLearn, KT et al. Listening to Parents: A National Survey of Parents with Young Children. *Archives of Pediatrics and Adolescent Medicine*, March 1998.

# Health Care Issues in Internationally Adopted Children

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An increasing number of Americans are choosing to build their families through international adoption. In 1978, American families adopted just over 5,300 children; in 1995, the number rose to nearly 9,800. In the 1960s, the typical adoptee was a war orphan from Korea. In 1995, however, about one-fourth of all adoptees in the U.S. were from Romania and the countries of the former Soviet Union; a fifth were from China; and most of the remaining children were from Korea, South America, Thailand, India, and Africa.

## For the journey

Families preparing to travel to a foreign country to receive a child may ask their health care provider about what medical supplies to bring for the child. If the family is travelling to a remote area, amoxicillin powder may be taken along, and the family should also be advised to seek medical advice — either via telephone call to the United States or to a local physician identified by orphanage officials — in the event the child becomes ill. Families should also pack liquid acetaminophen and diaper rash ointment. Families adopting Asian children may believe they need to pack lactose-free formula; however, true lactose intolerance is rare in healthy Asian

children under 4 years of age. Parents should gradually transition the child from her accustomed feedings to a new formula; powdered formula should be made with boiled water while travelling.



## Coming home

Children should be evaluated by their local health care provider within 48 hours of arrival in the United States. Most newly arrived adoptees appear much smaller than their chronological age; this may be due to malnutrition, recurrent infection, or genetic factors. National Center for Health Statistics growth charts may not be appropriate for some international adoptees, particularly Asian children. The Families with Children from China website (<http://www.fwcc.org/>) has gender-specific growth charts based on data from southern Chinese children; however, these may not be suitable for children from other regions of China or other Asian nations.

Inaccurate referral information

can present problems. For example, children may have been weighed in the birth country while bundled in multiple layers of clothing, and thus appear to have lost weight when initially assessed in this country. The reported birth date may be inaccurate, especially for abandoned children; if there are questions about a child's chronological age, assess bone age of the left hand and wrist.

Developmental assessment, including hearing and vision screening, should be done at the initial visit and repeated at a 4-6 month follow-up. New adoptees often show some delay (Miller et al.); the majority of these children recover from delays in the months after their adoption. Children with persistent delays should be referred as soon as possible for early intervention services.

## Immunizations

Written documentation of vaccinations is often acceptable, if immunizations were given in the order recommended in the United States. Immunization dates should be carefully reviewed, as clearly false or inaccurate dates may have been provided. Most vaccines used worldwide come from reliable manufacturers, and are effective. However, live virus vaccines requir-

## Assessment

All international adoptees should be screened for:

Condition	Screen
Anemia	A complete blood count with differential.
Dental disease	Older children may need extensive restoration.
Glucose-6-phosphate dehydrogenase deficiency	G6PD assay
Hepatitis B	<p>Get hepatitis B surface antigen and antibodies to hepatitis B surface and core antigens. Follow-up testing for surface antigen is recommended 6 months after the initial test (in rare cases, infection may have been at a stage too early to detect with initial screen).</p> <p>Children who test positive for surface antigen should be assessed for "hepatitis Be antigen" and elevated transaminase levels.</p> <p>Children with significant transaminase elevation, clinical evidence of hepatic dysfunction, failure to thrive, or abnormalities on hepatic ultrasound should be referred to a pediatric gastroenterologist.</p>
HIV	HIV infection in adoptees is rare but has been reported in adoptees from China and Eastern Europe. Since the ELISA in children under 18 months often reflects maternal infection status rather than the child's, use both ELISA and culture or PCR.
Hematuria, proteinuria	Urinalysis
Hemoglobinopathies	African and Asian children are at increased risk of hemoglobin disorders.
Lead poisoning	Include a serum lead level, as children have often lived in dilapidated buildings, and may be from large industrial areas with few environmental controls.
Metabolic screening	Newborn metabolic screening is not routine in many countries; all new adoptees should undergo the state metabolic screen, regardless of age.
Parasites	Stool ova and parasites. Risk factors for parasitic infection include ambulation, history of abandonment, abnormally low weight, and origin in country other than Korea. Complete blood count with differential; the presence of eosinophilia supports parasitic infection.
Syphilis	VDRL and fluorescent treponemal antibody (FTA-abs) where history or physical findings raise concerns.
Tuberculosis	All adoptees should have a Mantoux test, even if there is documentation of prior TB testing. Children who have received bacille Calmette-Guerin vaccine (BCG) should also be tested (see 1997 Red Book for interpretation guidelines).

Cytomegalovirus (CMV): Routine urine CMV culture is **not** generally recommended, as a positive result does not differentiate asymptomatic carriage from active infection.

ing cold storage should generally be repeated. The *1997 Red Book* provides guidelines for "catching up" incompletely immunized children.

Children often have trouble adjusting to their new homes at first. Sleep issues are common, and some children may have difficulty with new foods. Confusion, grief, and language difficulties can contribute to behavior problems in older children. Parents may find it helpful to meet with other parents of international adoptees; support groups are available in most metropolitan areas and on most major online services. Two helpful magazines for adoptive parents are *Roots and Wings* and *Rainbow Kids* (online at <http://www.rainbowkids.com>).

As these children join their adoptive families, health care providers, with their knowledge of common medical issues arising with international adoptees, have a unique opportunity to help them get a healthy start in their new life. Some useful resources on this topic include:

Albers LH, et al. (1997) Health of children adopted from the former Soviet Union and Eastern Europe. *JAMA* 278:11:922-924.

Barnett ED, Miller LC. (1996) International adoption: the pediatrician's role. *Contemporary Pediatrics* 13:8:29-46.

Miller LC, et al. (1995) Developmental and nutritional status of internationally adopted children. *Archives of Pediatric Adolescent Medicine* 149:40-44.

Rosenthal M. (1999) Screening very important part of caring for internationally adopted child. *Infectious Disease in Children* 12:1:28-29.

University of Minnesota International Adoption Clinic (<http://www.cyfc.umn.edu/Adoptinfo/screening.html#physician>)

# Iowa Universal Newborn Hearing Screening: Diagnosis and Intervention before 6<sup>th</sup> Month Is Crucial

## Why screen the hearing of all newborns?

For early intervention to be most effective, diagnosis of hearing loss needs to be made by 3 months and treatment needs to begin by 6 months.

**Diagnose and treat an infant's hearing loss BEFORE THE 6TH MONTH**, and the child's language quotient at 3 years will be nearly equal to that of a child with normal hearing.

**Diagnose and treat AFTER 6 MONTHS**, and a child's language quotient at 3 years will be about 60% of that of a child with normal hearing. (Yoshinaga-Itano, *Pediatrics*, 11-98)

## Why not limit screening to at-risk babies?

When you screen only babies identified as at-risk for hearing loss, you will miss about 50% of infants with hearing deficits. (Vohr, J. *Pediatrics*, 9-98)

## How many Iowa hospitals currently screen the hearing of all newborns?

May, 1997	33 Iowa hospitals provided screening. 15,113 (76%) Iowa babies were screened.
By March, 1999	72 Iowa hospitals will provide screening. These hospitals account for about 19,000 (96%) of all Iowa newborns.

## Who is carrying out the screening?

Most screening is done by OB nurses; screening is also provided by PNP's, staff audiologists, etc. Local staff members have been enthusiastic about both learning and implementing screening.

## How is local staff trained?

Les Schmeltz of AEA 9, Bettendorf, and Lenore Holte, of University Hospital School, currently provide training. Some local AEA audiologists assist with training as well.

## What kinds of technology are being used for screening?

Seven hospitals have A-ABR (automated auditory brainstem response) equipment; 33 hospitals have TEOAE (transient evoked oto-acoustic emission) equipment; and 32 hospitals have DPOAE (distortion product oto-acoustic emission) equipment.

## Are screening costs reimbursed by Medicaid?

Yes, they are.

## How many newborns show hearing loss?

About 4-6% of all Iowa newborns will be referred for further hearing evaluation; about 2-3 per 1,000 will be diagnosed with permanent hearing loss.

## Who coordinates early intervention for these infants?

Newborns with hearing concerns are referred to their local AEAs or other early intervention providers.

## What data are being kept on this program?

Planning is underway for a statewide database of screening results, refer rates, and information about program effectiveness.

## Who can tell you more about universal newborn hearing screening in Iowa?

For more information, contact:

Lenore Holte, Ph.D., Audiologist  
University Hospital School  
University of Iowa  
100 Hawkins Drive Rm. 128  
Iowa City, IA 52242-1011  
Phone: (319)356-1168 FAX: (319)356-8284  
E-mail: lenore-holte@uiowa.edu

See also the AAP Joint Committee on Infant Hearing 1994 Position Statement. *Pediatrics* 95:1, January 1995.

# Encouraging Dialog during the Six-month Exam

## Topic

## Questions you might ask

### HISTORY

#### Family dynamics

- What do you enjoy most about your baby? What do you enjoy least?
- How are your other children getting along with your new baby?
- What kinds of things do you do together as a family?
- Do you have time to read to your baby each day?
- What is your bedtime routine like?

#### Childcare

- Is your child in childcare? How is that going?

#### Communication and hearing

- What are your baby's favorite "words"?
- What makes her laugh? Does she like music?

#### Discipline

- How were you disciplined as a child? What will you do differently?
- Do you worry about spoiling your baby?

#### Depression

- Have you felt really sad lately? For long times during the last year?
- Are you sleeping well? Eating well?

#### Nutrition

- Are you still breastfeeding? Has she started eating solid foods yet?

#### Other milestones

- How does he react to other people — his grandparents? Siblings? Strangers?
- What does he do when he cries and isn't comforted right away?

#### Stress, anger, violence

- How are you and your partner doing?
- What happens when you get angry? Do you or your partner ever hit or slap?
- Do you ever feel unsafe in your neighborhood? What precautions do you take?

### PHYSICAL EXAM

#### Development

- Is there any thing that worries you about your baby's development? Do you have any questions about his health?
- Is your baby rolling over yet? Sitting up with support? (etc.)

### ANTICIPATORY GUIDANCE

#### Dental care

- How does she like having her teeth brushed?
- Is she taking fluoride? Is there fluoride in your drinking water?

#### Illness

- How can you tell when your baby is really sick?
- If he were really sick, who would you contact?

#### Economic well-being

- How is your job going?
- Are you getting along all right? Would you like information on services you can use?

#### Safety

- Was it hard to childproof your home? What sorts of things did you do?

#### Auto safety

- Have I explained why using car seats correctly is so important?

#### Smoking

- Is your baby exposed to cigarette smoke at home?

#### Alcohol, other drugs

- Do you drink? Use drugs? Would you like to get help?

#### Guns

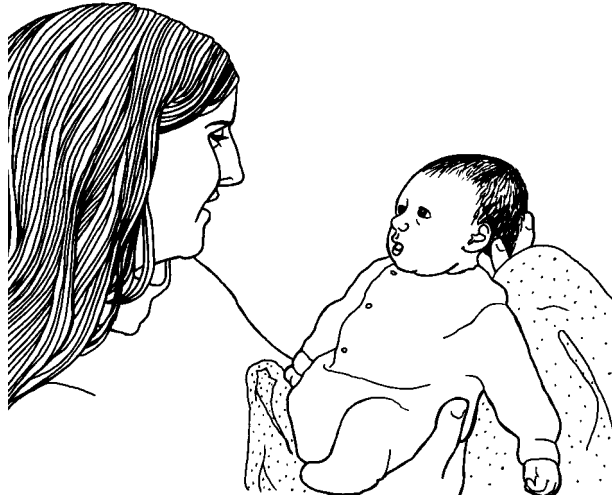
- Do you keep rifles or guns at home? How are they stored?

# Coming Your Way

## Rotavirus Vaccine

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Rotavirus infection is the most common cause of diarrhea in children in the U.S., causing more than 3 million cases of diarrhea, 50,000 hospitalizations, and 20-40 deaths each year. Virtually all children will have at least one rotavirus infection by the time they are four years old; the disease is most severe in children younger than 2 years.



In August 1998, Rotashield, a rotavirus vaccine, was licensed by the FDA for oral administration. It is recommended that all children receive this vaccine at 2, 4, and 6 months of age, except those for whom contraindications exist.

### Specific recommendations are:

- The first dose of RV vaccine may be given to infants as young as 6 weeks of age, and as late as 6 months of age. Subsequent doses should be given at intervals of at least 3 weeks.
- Initiation of vaccination should not be started after 6 months; all three doses should be given before a child is a year old.
- Increased rates of fever may occur after the first and second doses, but are generally mild, and last less than 24 hours.
- The RV vaccine can be

given at the same time as DtaP, Hib, hepatitis B, and IPV/OPV. The entire 3-dose schedule should be completed even if in the past the child has contracted wild-type rotavirus gastroenteritis.

### Contraindications:

RV vaccine should not be given to children with:

- Mothers known to be HIV infected, until tests for HIV infection in the child are negative at 2 months or older, by PCR or culture. Infants living in households with persons known or suspected to be immunocompromised should be immunized.
- Hypersensitivity to aminoglycoside antibiotics, amphotericin B, or monosodium glutamate.
- Anaphylactic reaction to a previous dose.
- Concurrent moderate or severe febrile illness, vomiting, or diarrhea.
- Known immunosuppression or immunodeficiency.

No special precautions need to be followed after children receive the RV vaccine, and they may return to child care as usual.

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