

# **Comprehensive Health Evaluation of the Newly Adopted Child**

## **From the American Academy of Pediatrics**

Clinical Report

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Children who join families through the process of adoption often have multiple health care needs. After placement in an adoptive home, it is essential that these children have a timely comprehensive health evaluation. This evaluation should include a review of all available medical records and a complete physical examination. Evaluation should also include diagnostic testing based on the findings from the history and physical examination as well as the risks presented by the child's previous living conditions. Age-appropriate screens should be performed, including, for example, newborn screening panels, hearing, vision, dental, and formal behavioral/developmental screens. The comprehensive assessment can occur at the time of the initial visit to the physician after adoptive placement or can take place over several visits. Adopted children should be referred to other medical specialists as deemed appropriate. The Section on Adoption and Foster Care is a resource within the American Academy of Pediatrics for physicians providing care for children who are being adopted.

Increasing numbers of children are joining families through adoption. It is estimated that every year, more than 100 000 children are adopted in the United States. Children can be adopted through the national public welfare system, private agencies, existing relationships, or the international process. Regardless of the route or timing of adoption, these children may have a myriad of special health care needs. Numerous studies have demonstrated that many children who enter the foster care system or children adopted domestically or internationally have an increased incidence of physical, developmental, and mental health concerns. Although these concerns may be addressed before adoption, many of these issues persist and continue to be significant or do not become apparent until after the time of placement in an adoptive home.

The number of international adoptions has tripled over the past 15 years, with an average of 22 000 adoptees entering the United States each year for the past 4 years. Most of these children come from China, Guatemala, Russia, Ethiopia, South Korea, Vietnam, Ukraine, and Kazakhstan. Regardless of their countries of origin, many of these children may have concerns related to infectious diseases and developmental delays. Several risk factors have been identified

that may account for the aforementioned outcomes, including poverty, little or no prenatal care, malnutrition, perinatal and postnatal exposure to bloodborne and environmental toxins and pathogens, and inadequate developmental stimulation and emotional sustenance. Children available for adoption are at high risk of having been exposed prenatally to illegal drugs or alcohol. Before adoption, children may have been directly or indirectly exposed to physical, emotional, or sexual abuse.

Pediatricians have played a significant role in the adoption process, in some cases providing counseling to parents during the preadoption phase and subsequently providing health care for these children. The pediatrician must be aware of the special needs of many of these children to evaluate and treat them appropriately. The pediatrician also needs to become knowledgeable of the resources available to help families integrate the new adoptee into the family unit. The purpose of this statement is to provide the general pediatrician with practical guidance that addresses the initial comprehensive health evaluation of adopted children.

## **COMPONENTS OF THE INITIAL PLACEMENT EVALUATION**

A comprehensive medical evaluation should be completed soon after placement in an adoptive home to confirm and clarify existing medical diagnoses, assess for any previously unrecognized medical issues, discuss developmental and behavioral concerns, and make appropriate referrals.<sup>8</sup> This evaluation should include a thorough review of the medical history, including an assessment of health risks, a developmental assessment, and a complete, unclothed physical examination. The initial health evaluation of an adopted child should be comprehensive in nature, but it is not necessary for this to occur during only one medical visit. Several visits to the pediatrician may be necessary to complete the assessment of the child's history, to review laboratory findings, and to make referrals to medical, developmental, mental health, and dental specialists. Subsequent evaluations, including referrals and laboratory testing, should be undertaken to allow for comprehensive health planning.

### **The Preadoption Visit**

The preadoption visit can be helpful for the adoptive family. Parents may request the pediatrician review medical records of the child and/or biological parents. The pediatrician may be able to use those records to help parents determine additional questions that could clarify a particular health issue and help parents clarify what special needs they are prepared to accept. Some specific issues to address in the medical records include growth trends and a preliminary assessment of developmental progress, and, if available, family history and information about the pregnancy course and childbirth. The pediatrician may offer clarification of medical diagnoses, particularly from international adoptions that may be more prevalent in particular regions of the world. Besides medical records, parents may have other materials, such as photos and video, for review. Although these may be informative to confirm or refute what is written in the medical record, they do not provide a conclusive diagnosis. The preadoption visit also allows for counseling on other issues. The issue of closed versus open adoption can be explored with the parents. Open adoption describes a continuum of communication between the birth parents and the adoptive family. Pediatricians should discuss with families the extent of communication

between the adoptive family and the biological family and provide needed support by identifying potential and real benefits and drawbacks to the relationship.

Special issues related to nutrition of the child could be addressed. Some families may be interested in breastfeeding their infant, so the pediatrician needs to be familiar and supportive of the option and techniques of induced lactation. Finally, providing information about available community support services may ease the transition for the expected family. For further assistance, the primary care physician can consult with the American Academy of Pediatrics (AAP) Section on Adoption and Foster Care.

### **Initial History and Review of Medical Records**

When a child presents for an initial complete adoption evaluation, a review of the current and past medical history must be undertaken, with particular attention to any previous medical findings in the child's medical records. The Electronic Health Record (EHR), using the Health Information Exchange standards, may eventually help facilitate transfer of this medical information.

### **Review of Medical History/Previous Records**

A complete medical history, including prenatal history obtained from the mother and genetic history obtained from both parents, is ideal but rarely available. The adoption agency social worker (who should be trained appropriately to do a skilled genetic, medical, and prenatal interview) should take an extensive history from the birth parent(s), if possible, and enter these data into the formal medical record for the future adoptive parent. Perinatal risks, which must include lifestyle-related information about the parent(s) that may affect the fetus at birth or later in development, also should be reviewed. Such information includes parental use of alcohol or drugs and history of sexual practices that increase the risk of sexually transmitted infections both in the mother and her partner(s). Physicians and adoption agency social workers should be trained to obtain such information in a manner that is sensitive to the psychological and cultural issues of the families.

Children being adopted from foster care most likely have had fragmented care and limited continuity of medical records. Health care before foster care placement may have been inadequate, with multiple unmet medical needs. The AAP recommends a comprehensive health evaluation of all children at the time of entrance into foster care. The medical records from all previous health care providers should be made available for review for the adoptive parents as soon as possible after placement into an adoptive home and before finalization of adoption from foster care. Lack of availability of medical records should not delay the timing of the initial comprehensive health evaluation. Parents, working in collaboration with their legal representative, their pediatrician, and local child welfare and adoption agencies, should obtain the child's complete medical records, including (if possible) developmental, educational, and mental health assessments. For children being adopted from foster care, equal emphasis should be placed on review of the medical history and the physical examination of the child.

With international placements, medical history may be sparse or inaccurate. The evaluation of a child who has been adopted internationally will depend, to a large degree, on a complete physical examination and comprehensive laboratory screening based on environmental, nutritional, ethnic, and infectious disease risks. Pediatricians should take advantage of current literature that specifically addresses issues that may be prevalent for a potential health risk secondary to the child's countries of origin.

### **Initial Physical Examination**

The initial physical examination, should be comprehensive, with particular attention to systems that have been found to be more "at risk" for adopted children. Care should be used when approaching the newly adopted child, particularly for internationally adopted children. The child, who may be new to the country, may have never experienced a comprehensive examination and may become anxious. For older international adoptees, it is often helpful to have a translator present to explain what is happening. For all children, one needs to go slowly and be sensitive to the child's cues and provide reassurance.

### **Components of the Comprehensive Physical Examination Pertinent to Adoption**

Growth parameters, including height, weight, and head circumference, should be measured accurately for all children. Ethnically oriented growth charts should be used when available, particularly for international adoptees. If possible, previous measurements should be obtained to assess growth over time, because this may provide an objective assessment of the child's nutritional and medical status. Attention should be given to the child's general appearance. Any abnormal features that might be suggestive of a genetic disorder, syndromes (such as fetal alcohol syndrome), or congenital defects should be noted, as should any abnormalities of the skin that may lead to a diagnosis of an infectious disease or are suggestive of previous abuse. A thorough but sensitive examination of the genital area should be performed to identify any abnormality suggestive of previous sexual abuse. Ritual genital cutting should be documented. The timing of this examination may need to be adjusted depending on the child. Children who have been traumatized in the past and are new to their adoptive homes may become anxious and overwhelmed. If the relationship with the adoptive parent is still very new, the child may feel helpless without adequate support. As is expected for any new patient, a comprehensive neurologic examination should be performed.

### **Referral for Diagnostic Testing**

For all children, diagnostic studies appropriate for the evaluation of the child's risk factors should be completed. Children born outside of the United States should have all tests that were completed in the country of birth repeated according to US recommendations. Previous laboratory testing may not be verifiable because of concerns about accuracy, appropriate reporting and interpretation, and timing of the tests. Recommendations are also available for children who have lived in foster care. For children who lived in a foster home before finalization of adoption, diagnostic studies do not need to be repeated if the physician can review the results of the diagnostic studies, unless there has been additional risk of infectious disease and environmental exposures. Children being adopted shortly after birth should have accurate

verification of the biological mother's prenatal laboratory studies, with testing performed on the child if the information is unavailable or if the accuracy of the records is unclear.

### **Diagnostic Testing**

Children who previously lived in conditions of significant poverty, in institutional settings, or in other countries are at particular risk of infectious diseases. Recommendations for screening children adopted internationally are available in the current AAP Red Book.

### **Immunizations**

Immunization records should be reviewed carefully, particularly with respect to the immunizations given, the dates, intervals between vaccines, and the age of the child at the time the immunizations were given. Records for children who have lived in several foster homes may be incomplete. Children who were immunized in an institutional setting may have an inadequate immunologic response because of poor storage of vaccines or vaccines used beyond the expiration date. For children with previous immunizations, vaccines may be repeated for most children using an accelerated immunization schedule. As an alternative, antibody titers may be performed to determine serum immunity for major antigens. This approach is usually more cost-effective for older children. If antibody concentrations are to be obtained, it is important to interpret results in light of the dates of the last vaccine doses and possible persistence of maternal antibodies. An acceptable alternative when doubt exists is to reimmunize the child.

### **Evaluation and Administration of Immunization Status of Adopted Children**

#### **Chronic Health Concerns**

During the health assessment of an adopted child, health concerns not previously diagnosed may be identified. Following a review of any previous medical testing, it is appropriate to make referrals to pediatric medical subspecialists. The pediatrician should play a key role in coordinating the health care management of adopted children with special health care needs. Although referral is important, one may take into consideration that the child is adapting to a new home, and parents are adapting to the child. Minimizing the number of referrals or at least planning them carefully is critical to ensure successful adjustment and to encourage the family to establish a medical home for ongoing continuity of care.

#### **Hearing and Vision Screening**

Hearing and vision screening of children is recommended. A child adopted in the newborn period should have an examination of his or her hearing if not performed previously. In many states, routine hearing screenings are performed for all newborn infants. These results should be documented and made a part of the child's permanent medical record. Even if tested in the newborn period, a hearing evaluation should be obtained for any child with a history of recurrent otitis media or developmental delays, including speech delay.

#### **Other Screening Evaluations**

All children should have an eye examination. Newborn infants should have careful documentation of the red reflex. A funduscopic examination of dilated eyes should be performed by an ophthalmologist for all children with a birth weight <1500 g. Older children should have examination for strabismus and for abnormalities of the fundus, eyelids, and extraocular muscles. Vision screening should be performed for all children 3 years and older.

## **Dental**

Any previous dental diagnoses should also be noted, with appropriate referrals to dental specialists. Dental professionals should be informed about previous medical illnesses and malnutrition, as well as periods in which the child lived in an area of the world with no fluoride in the diet. A dental evaluation, as recommended by the AAP<sup>37</sup>, should be performed for all children 12 months or older, as well as younger children with evidence of dental caries, baby bottle tooth decay, or historical risk factors, including abuse via the mouth.

## **Age Determination**

For some international adoptees, questions may arise with respect to the child's accurate date of birth. For children younger than 1 year, a difference of weeks or a few months will not be critical in the long term. For older children, age determination may be more important, especially with respect to placement in school and eligibility for special education services. There are no accurate or reliable tests for age determination. Malnutrition and deprivation may affect assessments using standard measurements, including radiographic bone age and dental eruption. Onset of puberty may be advanced as a child's nutritional status rapidly improves. It is usually best to delay changing a birth date until at least 12 months after adoption to allow for catch-up growth, as well as prolonged observation of a child's physical and emotional development.

## **Developmental Screening**

Developmental screening should be performed using validated screening tools; for the internationally adopted child, it may be a very complicated issue. Validated screening tools performed shortly after arrival often may be difficult to interpret. The child usually faces a language barrier, and his or her exposure to the types of materials used for testing may be limited. For these children, early scores may not be predictive of later functioning, as seen in studies by Rutter et al. Several studies have demonstrated significant developmental delays in children as they enter foster care, particularly in speech and language. Likewise, children adopted internationally nearly always demonstrate delays in at least one area of development, with nearly half of the children having global delays. Children adopted internationally may demonstrate delays in expressive and receptive language that are not solely related to acquisition of a new language. Although "catch-up" development does occur, studies have shown that many children are at increased risk of long-term consequences of developmental delay, depending on the age of adoption and the length of time spent in an institutional setting.

## **Mental Health Review**

Children adopted from foster care and children adopted from institutions are at an increased risk of mental health disorders, including socioemotional problems. Replacement factors such as prenatal drug and alcohol exposure, prolonged institutionalization, multiple placements, and previous abuse and neglect contribute significantly to the emotional problems of these children. When available, pediatricians should take into consideration any history of mental health diagnoses in members of the birth family, watching a child carefully with the use of validated screening tests, such as the Pediatric Symptom Checklist, Brief Infant-Toddler Social Emotional Assessment, or Ages and Stages Questionnaire: Social-Emotional, that can be performed in the pediatric office. Appropriate referrals should be made when such a risk presents itself. Although referrals should be performed at the time of placement for children with a history of abuse or neglect, screening for mental health disorders should take place at all medical visits, particularly at the time of regular health assessments.

## **Behavioral and Mental Health Recommendations**

### **Issues of Adjustment**

Adjustment issues should be addressed at the time of placement into the home. Children may be withdrawn, have temper tantrums, be aggressive or defiant, cry inconsolably, or even have autistic-like behavior as they undergo changes in their family placement. Some children may regress in previously obtained skills. Older, internationally adopted children will likely encounter frustrating language barriers with their adoptive family. Even if transitions into an adoptive home are gradual, most children experience grief with the change in their caregivers, peers, and home environment. Sleep problems are also common. Difficulties in timing, location, duration, and quality of sleep are typical. Feeding problems may present after adoption. Feeding issues may include overeating, hoarding, or food refusal. Pediatricians need to counsel families about potential adjustment issues and encourage them to look for cues that the child may be overwhelmed and help them to develop strategies to promote strong, healthy attachments within the family unit.

### **Kinship-Specific Issues**

Children placed with kin should also receive the same comprehensive evaluation as those living in nonrelative placements. This recommendation applies even if the child has had no interruption in the child's medical home before or after placement. Studies have demonstrated that the incidence of chronic medical problems and mental health concerns in children living in kin foster care are similar to those of children living in nonrelative foster care.

### **Role of Adoption Medical Specialists**

Adoption and foster care medicine is an evolving subspecialty within the field of pediatrics. The AAP Section on Adoption and Foster Care provides a mechanism for obtaining information related to enhancing further training for physicians who care for children who have been adopted.

### **Financial Considerations**

The comprehensive assessment of a newly adopted child requires extensive physician time and commitment. Services can be reimbursed on the basis of type of services provided, time spent, and complexity of care. Services such as the preplacement consultation may not be covered by most insurance carriers, but the pediatrician should advise the adoptive parent to seek information from the parent's employer about benefits covered through an adoption subsidy plan or flexible-spending account. Children adopted through the foster care system may have continuation of their Medicaid benefits even after the adoption is finalized. Finally, families may be eligible for the federal adoption tax credit to offset some of the adoption-related costs.

## **CONCLUSIONS**

Children placed for adoption are in need of a comprehensive health evaluation to fully address all of their health and developmental needs. This is best accomplished with the establishment of a medical home for these children. The comprehensive evaluation should include a review of the child's medical history, complete physical examination, and results of necessary diagnostic testing. Important consideration should be given to risks in the child's past, with full attention to infectious diseases and environmental, nutritional, developmental, and mental health issues. Pediatricians play an important role in working with families in identification of children's needs and providing emotional support to help families through the adoption process. Ongoing awareness of the adopted child's history through routine follow-up visits will enable the pediatrician to identify other health issues that may develop and assist families in accessing resources that will help them in the long term.

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## **FOOTNOTES**

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