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The comprehensive pediatric orthopaedic history includes questions that are not normally asked as part of the routine history taking in adult patients. A history of the mother's pregnancy, the neonatal period, the child's neurologic development, and the family history often have a much greater impact on the subsequent physical examination and diagnosis of children than of adults. An outline of pertinent historical features included in the initial history and physical examination used at Texas Scottish Rite Hospital for Children is presented in Chapter 3, The Orthopaedic Examination: A Comprehensive Overview (see Appendix 3–1).

## Chief Complaint

The orthopaedic history starts by recording the *chief* or *presenting* complaint or complaints. Common musculoskeletal complaints include deformities, limp, localized or generalized weakness, and joint swelling, pain, and stiffness. With pediatric patients, the orthopaedist needs to determine whether the chief complaint is the concern of the child, the parents, a schoolteacher, or some other person.

## History of Present Illness

Next, the examiner should develop a clear, chronological narrative of the present problem, including its onset, the setting in which it developed, its manifestations, and any previous treatments. The principal symptoms should be described according to their location, quality, quantity or severity, timing (onset, duration, frequency), setting, aggravating or relieving factors, and any associated manifestations.

Because the musculoskeletal system has to do with support and locomotion, many related symptoms are caused by physical stress and motion. Thus, it is important to determine whether the patient's symptoms are related to physical activity. If there is any history of injury, details of the trauma should be investigated to determine its significance to the present complaint.

All of this information must be put into the proper context based on the patient's age—that is, where the child should be in normal growth and development for that child. Finally, the examiner should determine how each family

member responds to the child's symptoms, why he or she is concerned, and the secondary gains the child (or other individuals) may acquire from the illness.

## Family History

The information sought in the family history should be relevant to the patient's present illness and appropriate to the patient's age. The age and health, or age and cause of death, of parents and siblings may be pertinent. Relevant health information about other relatives that may have an impact on the patient's complaint should also be obtained. The presence of scoliosis, clubfeet, developmental dysplasia of the hip, skeletal dysplasias, repeated fractures, and neuromuscular disorders in family members should be specifically ascertained.

## Birth History

The child's birth history which includes the prenatal, natal, and neonatal periods, is particularly important when congenital disorders, neurologic impairments, or developmental problems are present. If necessary, the examiner should obtain the patient's hospital records to confirm the parent's historical information or to answer specific questions that the parents are unable to answer.

### PRENATAL HISTORY

During the first trimester of pregnancy, embryogenesis (development of the embryo) and organogenesis (generation of the early organ systems during the end of the embryonic period of gestation) proceed at a rapid rate. By the end of the embryonic period, all of the major body systems have been established and the principal body structure is complete. Any extrinsic interruption of normal organogenesis during the embryonic period can result in significant malformations (e.g., myelomeningocele, syndactyly, preaxial polydactyly). Thus, any unusual incident during this period may be of clinical significance.

- Was there any history of vaginal bleeding to indicate threatened abortion?

- Did the mother have any infections during the first trimester?

*The deleterious effects of maternal rubella during the first month of pregnancy, with consequent cataract, deafness, heart disease, mental retardation, and seizures in the child, are well established.*

- Did the mother have a history of syphilis, toxemia, or diabetes mellitus during this period?

*These conditions are also associated with a high incidence of abnormalities in the newborn.*

- Did the mother have genital herpes or herpes simplex?
- Did the mother ingest any toxic substances or take any medications that might harm the fetus? Specifically, is there a history of illicit drug use or alcohol abuse during the pregnancy?
- Did the mother suffer any accidents in which the abdominal wall was struck, or in which there was excessive blood loss with critical lowering of her blood pressure?
- Did the mother feel normal fetal movements between the fourth and fifth months of pregnancy?

*A history of feebleness or absence of fetal movements during this period may be of importance in arthrogryposis multiplex congenita or Werdnig-Hoffmann disease.*

## NATAL HISTORY

Information should be obtained regarding the length of the pregnancy, the duration and nature of the labor and delivery, and the condition of the newborn.

- Was the onset of labor spontaneous or induced?
- Did the mother receive an analgesic or other medications during labor, and if so, how long before delivery?
- Was obstetric anesthesia (general, epidural, or other) used, or did the mother deliver without the use of anesthesia?
- Were there any problems with the delivery of the infant?
- Did the child present in a vertex or breech position?

*Certain conditions, such as developmental dysplasia of the hip and congenital muscular torticollis, are more frequent in breech deliveries.*

*Occiput posterior or breech presentations may result in prolonged labor, resulting in a greater potential for anoxic episodes and other fetal distress.*

- Was the child premature?
- What were the birth weight and length of the child?

## NEONATAL HISTORY

The condition of the newborn during the neonatal period is particularly important in children with congenital disorders or neurologic impairments.

- How long did it take for the infant's first breath and first cry? What was the nature of the cry?
- Were there any respiratory problems? Did the child require any time in an incubator? Was oxygen provided? Did the infant need to be intubated or otherwise resuscitated?
- Were there any neonatal convulsions?
- Was any exchange transfusion necessary?
- What were the Apgar scores at 1 and 5 minutes?

- What were the appearance and color of the newborn when first seen by the parents?
- Was there any cyanosis?
- Was there any jaundice? If present,
  - when was it first noted?
  - how was it treated (observation at home, observation in the hospital, phototherapy, or exchange transfusion)?
  - when did it disappear?
- Was there any asymmetry of the face or limbs?
- Were there any obvious deformities of the limbs?
- Were there any infections, injuries, or evidence of trauma?
- Was the infant's muscle tone flaccid, tight, or normal?
- What was the nature of bonding with the mother?
  - Was sucking or feeding normal, feeble, or absent?
  - Did the newborn have to be tube-fed?
- When was the infant discharged from the hospital? Did the infant go home with the mother?

## Growth and Development: The Key Questions

Obtaining a growth and development history is particularly important when delayed growth, psychomotor or intellectual retardation, or behavioral problems exist. The examiner should determine whether the child is reaching certain milestones of development within the expected time periods. To do so, the examiner looks for evidence of the functional adequacy of the neuromusculoskeletal system (posture, functional development of the lower and upper limbs) and the general responsiveness of the infant to parents and objects in the environment (activities of daily living, social development, and speech).

- When did the child first lift his or her head?
- When did the child begin to roll over, sit, crawl, pull up to a standing position, walk unsupported, run, ascend or descend stairs, and hop on one foot without support?
- When did the child hold a bottle, reach for and grasp a toy, transfer objects from hand to hand?
- When did the child offer his or her arm for a coat or foot for socks, feed self unaided with a spoon or fork, pull off or put on clothes?
- At what age did the child smile when spoken to, turn his or her head to sound, respond to "no," wave bye-bye, play pat-a-cake, and say *da-da* and *ma-ma*?
- When did the child begin to show an interest in picture books and recognize familiar objects?
- At what age was the child able to speak a few words, and when did he or she achieve three-word sentences?
- The examiner should also inquire as to:
  - day and night sleeping patterns
  - the age of toilet training (stool and urine)
  - when hand dominance was noted
  - speech problems
  - habitual behavior patterns
  - discipline problems
  - relationship with parents, siblings, and peers
  - whether the child attends school (regular or special) and what his or her scholastic performance is