

conception. Questions to consider include: Was the mother's pregnancy complicated by illness and drug use, either prescribed or recreational? How old was the baby when discharged from the hospital after birth? Has the child had any overnight hospitalizations or surgeries? A complete history is designed to uncover possible risk factors for the development of seizures or epilepsy.

The family history should include whether other family members have ever had a seizure of any kind, cognitive impairments, cerebral palsy, autism, or other neurologic disorders. Ask if there is a family history of sudden, unexpected deaths. A family history can offer clues to paroxysmal disorders, such as migraine headaches, breath-holding spells, febrile seizures, or neurologic diseases.

A complete physical and neurologic examination, including developmental assessment of language, learning, behavior, and motor abilities, may provide clues to the cause of the seizures. A number of laboratory and neuroimaging tests may be ordered depending on the child's age, whether it is a new-onset seizure, characteristics of the seizure, and the history. Laboratory studies that may prove valuable include a white blood cell count (for signs of infection) and blood glucose measurements that may indicate hypoglycemic episodes. Serum electrolytes, blood urea nitrogen, calcium, serum amino acids, lactate, ammonia, and urine organic acids may indicate metabolic disturbances. Blood for chromosomal analysis may also be tested if a genetic etiology is suspected. A toxic screen should be performed if alcohol or drug ingestion or withdrawal is suspected. Lumbar puncture can confirm a suspected diagnosis of meningitis. CT may be done to detect a cerebral hemorrhage, infarctions, brain tumors, and gross malformations. MRI provides greater anatomic detail and is used to detect developmental malformations, tumors, and cortical dysplasias.

Most children with seizures will have an EEG. The EEG is the most useful tool for evaluating the child's risk of recurrent seizures, helping to determine the type of seizure the child had, and diagnosing the type of epilepsy. The EEG confirms the presence of abnormal electrical discharges and provides information on the seizure type and the focus. The EEG is carried out under varying conditions—with the child asleep, awake, awake with provocative stimulation (flashing lights, noise), and hyperventilation.