

# Landau-Kleffner Syndrome

Written by Stephen M. Edelson, Ph.D.

Landau-Kleffner Syndrome is manifested as a form of aphasia, (loss of language), which usually develops between 3 and 7 years. It is twice as common in males than females. Initially, these individuals have a healthy, problem-free development with normal speech and vocabulary. These individuals first lose their ability to comprehend (i.e., receptive speech) and then their ability to speak (i.e., expressive speech). These changes can occur gradually or suddenly.

People with Landau-Kleffner Syndrome have abnormal EEG patterns (i.e., brain waves) in the temporal lobe (located on the sides of the brain) and in the temporo-parieto-occipital regions during sleep. Diagnosis of this syndrome usually involves examining the person's EEG patterns during sleep. Approximately 70% develop epilepsy; and these seizures are typically infrequent and can be either with or without convulsions.

One common characteristic of Landau-Kleffner Syndrome, which is often diagnosed in conjunction with autism, is the failure to respond to sounds. Thus, parents may suspect their child of hearing loss. Autistic characteristics seen in Landau-Kleffner Syndrome individuals include pain insensitivity, aggression, poor eye contact, insistence on sameness, and sleep problems.

The cause of Landau-Kleffner Syndrome is not known. Some suggested causes have been a dysfunctional immune system, exposure to a virus, and brain trauma. The prognosis is better when the onset is after age 6 and when speech therapy is started early. Several other treatments have also been shown to be beneficial for many of these individuals, such as anticonvulsant medications and corticosteroids. There is also a surgical technique in which the pathways of abnormal electrical brain activity are severed.