

Berg, AT, Smith SN, Frobish D, Levy SR, Testa FM, Beckerman B, Shinnar S. **Special education needs in children with newly diagnosed epilepsy.** Dev Med Child Neurol. 2005; 47:749-753.

### **Abstract**

Children with epilepsy often experience poor social and educational outcomes. This study aimed to determine the timing of services with respect to the onset of seizures. It also aimed to identify the aspects of childhood epilepsy (type of epilepsy, etiology, seizure control, and treatment) that are associated with the use of special education services. As part of a prospective community-based study, 613 children were recruited when first diagnosed with epilepsy. Mean age at first seizure was 5 years 11 months (SD 4, range 1mo to 15y 8mo). Parents were interviewed 5 years after children were first diagnosed with epilepsy ( $n=542$ ; 276 [51%] males). Children's mean age at time of interview was 11 years 10 months (SD 4y 1mo, range 5y 8mo to 21y 8mo). Etiology was classified as idiopathic ( $n=181$ , 33.4%), cryptogenic ( $n=261$ , 48.2%), and remote symptomatic ( $n=100$ , 18.5%). Service use was reported in 315 (58%) children. Compared with neurologically intact children (i.e. cryptogenic and idiopathic etiology;  $n=415$ , 77%), children with a remote symptomatic etiology and/or an epileptic encephalopathy ( $n=127$ , 23%) received services more frequently (88% vs 49%,  $p<0.001$ ). In the former group, services were initiated for 66 (15%) children before their first seizure; according to age at onset, services were initiated before the first seizures in 12/164 (7.3%) if <5 years, 34/171 (19.9%) if 5–9 years, and 20/80 (25%) if >10 years. A large proportion of children with epilepsy, even if neurologically otherwise normal, receive special education services. Initiation of services often precedes onset of seizures even in neurologically intact children. This suggests that behavioral and cognitive abnormalities may predate the onset of epilepsy and are not necessarily the direct consequences of epilepsy.