



**BRAIN INJURY
ASSOCIATION
OF NEW JERSEY**

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No Brain Injury is
Too Mild to Ignore,
or Too Severe to
Lose Hope

Medication Management in a Child/Adolescent with a Traumatic Brain Injury (TBI)

By Connie Domingo, M.D.

Children and teens are back in the swing of school and sport activities. It is an exciting time returning back to school and meeting old and new friends as well as meeting new teachers. It is a different story for children and teens with traumatic brain injury; they have to deal with their own medical issues that may make it more challenging for them in returning to school. Some of the kids may have issues with attention, difficulty concentrating and poor memory, whereas others may have seizure disorder or post-concussive syndrome, prompting the need for medications.

Arousal and attention are common areas of impairment. A third of patients with a traumatic brain injury are found to have had a history of learning disability or attention deficit. Similar medications are used with attention deficits related to traumatic brain injury or independent of a TBI. They are dosed either daily or twice daily depending on the type of neurostimulant. The most common side effects seen are poor appetite and sleep disturbances. Some possible strategies to prevent these side effects are to provide snacks throughout the day or dose after a meal, establish a bedtime routine or adjust the time medication is given to earlier in the day.

The overall development of post-traumatic epilepsy in the pediatric population is less than 5%. It is important to have a seizure action plan outlined with the school nurse, parent and child in order to note the type of seizure the child/teen experiences, medications and abortive measures taken. When a child or teen requires treatment for seizures, drugs with the least depression of cognitive function are used with the lowest clinically effective dose. Sedating drugs, such as barbiturates or benzodiazepines, should be avoided if at all possible. Determining the appropriate treatment is individualized based upon the type of seizure, the child's age, and likelihood of significant side effects. Monotherapy is preferred when possible and is effective with a majority of patients.

Post-concussion syndrome is seen primarily in the teens. They may show emotional changes including low frustration tolerance, lack of motivation or initiative and somatic complaints which include light or sound insensitivity, headaches, and cognitive fatigue. Medications may be used to treat the mood changes as well as use of Tylenol or non-steroidal anti-inflammatory medications to treat the somatic complaints of headache. The teen may require rest breaks throughout the school day or a shortened school day initially in order to allow appropriate healing of the teen with TBI.



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Appropriate management of a child or teen with a TBI is a long-term process with the ultimate goal to prevent academic and social failure. For a child/teen to have a successful school year, it is important that the parent, child/teen and school nurse have a team approach in outlining a medication management plan*. Children and adolescents with traumatic brain injury face a variety of challenges in school and home, but with proper medical care and support from family, teachers and friends, they can have a successful and fulfilling life.

Connie Domingo is the Medical Director of Weisman Children's Rehabilitation Hospital and a member of the Brain Injury Association of New Jersey's Children and Adolescents Committee.

* While classroom strategies and accommodations are addressed in the IEP and 504 plans, medications are addressed in the IHP (Individual Health Plan). You can learn more about IEPs and IHPs through the Brain Injury Association of New Jersey's publications, which are on the Web at <http://www.bianj.org/helpline-articles-and-publications>.