

Managing the effects of head injury



To a parent, any injury to a child or teenager is a frightening experience.

But it's possible that none are more so than a traumatic brain, or head, injury.

And with good reason. Traumatic brain injuries (TBI) are the leading cause of death and disability in children. Although TBI affects children of all ages, those 15 to 19 years old have the highest rate, with motor vehicle accidents being the most frequent cause. "The rate of head injury in this group is second only to the rate for the elderly population," said Philipp Aldana, M.D., pediatric neurosurgeon and medical director of the Comprehensive Traumatic Brain Injury Program at Akron Children's Hospital.

Children involved in sports and recreational activities, including football, wrestling, hockey, soccer, snowboarding and in-line skating are also more susceptible to head injuries.

The good news is if the TBI is considered moderate to severe, where symptoms are more easily identifiable, appropriate medical care and follow-up, including rehabilitation may be put into place as soon as possible, which is key to recovery. With all TBI, symptoms may persist months or even years after the injury.

But in the case of a mild head injury, such as a concussion, the effects aren't always evident right away and many children

generally go home "walking and talking," with no immediate problems. Often problems occur later, after the initial effects of the injury have gone away. In many cases, these lingering effects go unrecognized and untreated, and are often mistaken for other developmental or behavioral problems. They may include:

- Physical problems such as headache, lethargy, dizziness and neck pain
- Cognitive problems that manifest as confusion, memory lapses, concentration difficulties and other symptoms
- Behavior/mood changes such as mood swings, impulsivity or irritability that may mimic the symptoms of Attention Deficit Hyperactivity Disorder (ADHD)

To further complicate the situation, some of these symptoms could be the result of a pre-existing problem the child may have had before the injury. For instance, studies show that a child enrolled in a special education program at school is three times more likely to have suffered a TBI, sometimes due to a tendency toward impulsive behavior. "Kids with ADHD may be more likely to suffer a traumatic brain injury," noted Colette Libertin, CNS, a trauma clinical nurse specialist at Akron Children's.

Also, it may be difficult to recognize problems as stemming from a head injury because the child may have had similar behaviors prior to the TBI. "Sometimes the head injury can intensify problems related to ADHD," she added.

Since 80 to 90 percent of traumatic brain injuries are mild and up to one-third of them will have long-lasting effects, it is easy to see how many children may be "falling through the cracks." The Brain Injury Association of America has dubbed this problem "The Silent Epidemic."

"After a year, the effects of a brain injury may be gone, but during the recovery period, the child may have had school difficulties, or even failed a grade," Dr. Aldana said.

Addressing the problem at Children's

To ensure that children with mild head injuries receive the same follow-up care as those with severe or moderate injuries, Dr. Aldana and Henry Bartkowski, M.D., Ph.D., director of Pediatric Neurosurgery at Children's, helped launch Children's Comprehensive Traumatic Brain Injury Program in late 2003.

Although the Traumatic Brain Injury program is an initiative of Children's Division of Pediatric Neurosurgery, it brings together services from Neurosurgery, Neurology, Psychology, Trauma Services, Rehabilitative Services and Social Work. Together these departments ensure that all TBI patients receive comprehensive treatment for medical, educational, social and psychological problems. The TBI program has a nurse practitioner, Lillian Senko, RN, CPNP, dedicated to the medical needs of these patients both in



and out of the hospital. It also has a TBI social worker, Sherri Roberts, LISW, who addresses the social and resource needs of the patient and family, as well as the patient's school re-entry.

The TBI school re-entry program helps kids return to school and assists with any special educational needs following the injury.

Because so many children may be affected by a head injury, Dr. Aldana knows there are many who may be helped by this comprehensive program.

"The Traumatic Brain Injury program allows us to better serve the children and help improve the health of our community as a whole," he noted.

For more information about the Comprehensive Traumatic Brain Injury Program at Akron Children's, consult your child's physician. Or, call 330-543-4323 (HEAD). You may also visit the Children's Hospital Web site at www.akronchildrens.org. For information about an ongoing head injury study, see page 7.

Watch for lingering effects

If your child experiences any of these symptoms following a mild head injury, consult your child's physician for further evaluation:

Physical Changes

- Tires easily
- Vision/hearing changes
- Clumsiness/poor coordination
- Neck or back pain
- Headaches, dizzy spells, lightheadedness
- Speech changes

Behavior/Mood Changes

- Extremes of emotion
- Impulsiveness
- Lack of motivation

Cognitive Changes

- Confusion
- Memory changes
- Difficulty paying attention or concentrating
- Language changes/difficulty expressing self

Written/Spoken Communication

- Reading comprehension problems
- Changes in school performance
- Faulty judgment
- Difficulty problem solving



What's
new on
the Web

Visit new online diabetes center

Web site helps kids and parents manage diabetes

If your child lives with diabetes, Children's new online diabetes center can help you both take control.

The online diabetes center offers information on diabetes, medication and monitoring; advice for living with the illness; tips on nutrition, including recipes especially for kids with diabetes; and the latest diabetes news. Available tools include a three-day food diary, a blood glucose record and a diabetes dictionary.

Visit the diabetes center at www.akronchildrens.org/diabetes.

Children's Web site to get a make-over

Later this fall, Children's will launch a redesigned Web site at www.akronchildrens.org. We're updating our site to make it even more user-friendly and engaging. This will make it easier for parents to find valuable health and parenting information, including specialists to treat their child, as well as the latest news on hospital services and programs. Watch an upcoming issue of *Inside Children's* for details or visit www.akronchildrens.org soon.

Participants needed for research studies

Akron Children's Hospital is currently recruiting participants for the following studies:

TYPE 1 DIABETES STUDY – Children ages 4 to 17 years with Type 1 diabetes who have been taking insulin for at least one year, and are not using an insulin pump, to compare the safety and effectiveness of a new, rapid-acting insulin with regular insulin.

GASTROINTESTINAL DYSFUNCTION ASSOCIATED WITH AUTISM STUDY – Children ages 2 to 17 years with autism who have a six-week history of GI disturbance (chronic diarrhea or constipation, bloating, gas and abdominal pain) to evaluate a treatment and to assess the effect of these symptoms on physical and emotional behavior.

Qualified participants often receive a free physical exam and study-related medical care, in addition to reimbursement for time and travel. Participation is completely voluntary.

For more information or to enroll, call 330-543-3193 or toll-free at 1-877-965-7737.

MILD HEAD INJURY STUDY – Children's Comprehensive Traumatic Brain Injury Program is currently recruiting children ages 6 to 18 years who have had a recent minor head injury and brain CT scan to examine the outcome following their injury. For more information or to enroll, call 330-543-4323 (HEAD).

For more information on any of the topics discussed in this newsletter, call the Ask Children'sSM health information and physician referral phone line at 330-543-2000 or toll-free at 1-800-358-KIDS. Ask Children's staff can also help families select a health plan to ensure access to pediatricians and pediatric specialists.

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Children's Hospital accepts almost all major insurance plans. Visit www.akronchildrens.org for the complete list.

Kohl's Cares for Kids

For the third year, the Kohl's Cares for Kids program has demonstrated its commitment to early literacy with a generous donation to Akron Children's Reach Out and Read program. This year's gift of \$448,427 brings Kohl's Department Stores' support of Reach Out and Read activities to nearly \$1.3 million. This represents the single largest corporate commitment to early literacy in the region and also the second largest single corporate gift in the hospital's history. Through Reach Out and Read, Children's pediatricians give a new book to patients at each well visit from 6 months to 5 years and offer tips on ways parents can share books with their children.



Finding and evaluating Internet health sites

An increasing number of people use the Internet to get health information. And while the Internet offers an overwhelming number of health-related sites, some information may be outdated, biased or just plain wrong. Learning a few essential tools will help you decipher the reliable from the unreliable.



Akron Children's has developed a brochure to help parents do just that. "Finding and Evaluating Internet Health Sites" contains useful information about how to check a site's reliability, tips for searching and a list of recommended health sites.

To request your free copy, fax this form to 330-543-3302.

Or, return this form (or a copy) along with a self-addressed, stamped, business-size envelope to:

**Akron Children's Hospital Public Relations Department
One Perkins Square, Akron, OH 44308-1062**

Please send me the brochure, "Finding and Evaluating Internet Health Sites."

Name (Please Print) _____

Address _____

City _____

State _____

Zip _____

Daytime Phone with Area Code _____

Don't forget to enclose a self-addressed, stamped, business-size envelope.