

## ***Recommendations:***

### ***One to several days after injury – especially if not admitted to hospital***

- ✓ During the first 24 hours the injured person should: not be alone, avoid strenuous activities, eat a light diet, and be awakened every TWO hours to check on awareness of name and where s(he) is
- ✓ Rest as much as possible to let injury heal; slowly return to normal activities
- ✓ Take only those medications prescribed by the doctor; avoid alcoholic beverages
- ✓ Injured person should not drive a vehicle or operate tools that require alertness

## ***Long Term Problems***

Symptoms may take up to a year or longer to surface.

Talk to the doctor if you:

- ✓ Have persistent headaches/neck pain
- ✓ Have poor balance, lack of coordination or muscle strength
- ✓ Vision, hearing, speech problems
- ✓ Sleep much longer than before or have trouble sleeping
- ✓ Have memory loss, mental slowness, trouble planning or making decisions
- ✓ Are feeling depressed, anxious or very emotional
- ✓ Lack usual energy

## ***Additional Recommendations***

- ✓ Make sure your doctor or clinic maintains your record and all test reports
- ✓ Tell the child's teacher/school about the injury and that it usually takes weeks for usual functioning and behavior to return. Ask the teacher to report any problems
- ✓ Utilize support system (family, friends, health professionals) during recovery and return to community
- ✓ Protect from additional injury by using seat belts and helmets, and overall caution. Persons with head injury are 7 times more likely to have another head injury
- ✓ Students with head injury may be thought to have a learning disability and not receive appropriate educational help
- ✓ Families, friends, teachers and employers should learn about the effects of head injury

## ***Resources***

*Contact information is subject to change.*

### **Brain Injury Support Groups**

Call (405) 271-3430 for support group in your area. (Enid, Lawton, Bartlesville, McAlester, Muskogee, Norman, Oklahoma City, Pauls Valley, Stillwater, Tulsa)

### **Traumatic Neurologic Injury Advisory Council**

Oklahoma State Department of Health  
Tel: 405/271-3430

### **Oklahoma Department of Mental Health and Substance Abuse Services**

Tel: 405/522-3908

### **Oklahoma State Department of Education**

Tel: 405/521-3315

### **Centers for Learning and Leadership**

Tel.: 405/271-4500

### **Oklahoma Department of Rehabilitation Services**

Tel: 405/951-3529; 800/845-8476

### **Oklahoma Indian Health Service**

Tel.: 405/951-3716

### **Oklahoma Office of Handicapped Concerns**

Tel: 405/521-3756; 800/522-8224

### **Oklahoma Department of Human Services**

Tel.: 405/521-3646

### **Medicare and Medicaid Services/Information**

[www.cms.hhs.gov](http://www.cms.hhs.gov)

### **Oklahoma Health Care Authority**

Tel: 405/522-7300; 800/522-0310

### **Oklahoma Disability Law Center, Inc. (Protection & Advocacy)**

Tel: 405/525-7755 800/880-7755

### **TBI Program/NASHIA Website**

[www.nashia.org](http://www.nashia.org)

### **National Brain Injury Association, Inc.**

Tel: 1-800/444-6443 (Family help line)

### **CDC Website**

[www.cdc.gov/ncipc/tbi](http://www.cdc.gov/ncipc/tbi)

Produced by the Injury Prevention Service, OSDH, in cooperation with Oklahoma hospitals. Supported in part by Grant #2H21MC00025-04 from the Department of Health and Human Services (DHHS), Health Resources and Services Administration, Maternal and Child Health Bureau. The contents are the sole responsibility of the authors and do not necessarily represent the official views of DHHS. This publication is in the public domain. Please duplicate and distribute widely.

This publication is issued by the Oklahoma State Department of Health, as authorized by James M. Crutcher, M.D., MPH, Commissioner of Health and State Health Officer. 75,000 copies have been prepared and distributed at an approximate cost of \$4950.00. Copies have been deposited with the Publications Clearinghouse of the Oklahoma Department of Libraries.

## ***Useful Information About***

# ***Head Injury***

***Keep for Reference  
in case Your Patient,  
You, or  
Someone You Know  
has a Head Injury***

## Traumatic Head Or Brain Injury

results from trauma such as an object striking the head or the head striking an object, and/or rapid acceleration and deceleration of the brain inside the skull as with a car crash. Injuries may be open (skull penetrated), or closed (skull intact). Damage to the brain may interrupt connections within the brain affecting any part of the body. The brain has three parts and four lobes that work together, yet each has special functions as shown in the figure. The brain has two halves (hemispheres). The brain and results of injury are very complex. Problems people may have after injury depend on the part(s) of the brain that was injured, seriousness of the injury, age, and their state of health.

**The first 24 hours after injury are usually the most critical. If any of the following problems occur, and were not present before injury, contact your physician or go to the emergency room (even if it is several months later).**

## Effects of Traumatic Head Injury

Some symptoms or problems may have been present to a degree before injury. The appearance of or worsening of problems after injury provides evidence of damage to the brain that may appear weeks or months later.

### Physical

- ✓ Nausea and/or repeated vomiting
- ✓ Irregular or labored breathing
- ✓ Fever over 100 degrees F
- ✓ Blood or clear fluid draining from nose or ears
- ✓ Loss of consciousness/unconsciousness
- ✓ New or increased neck pain or stiffness
- ✓ Weakness/loss of muscle strength in one or both sides of body
- ✓ Convulsions/seizures
- ✓ Headaches or headaches that get worse with emotional stress or physical activity
- ✓ Unusual drowsiness, trouble sleeping, or difficulty waking up
- ✓ Unsteadiness, lack of coordination or balance, or trouble walking
- ✓ Persistent dizziness, light headedness
- ✓ Trouble swallowing or speaking
- ✓ Fatigue, tire easily

### Thinking

- ✓ Mental confusion (forgetfulness, abnormal conversation, etc.)
- ✓ Unable to tell what day it is, where they are, or what happened to them
- ✓ Reacts, speaks, and thinks slowly
- ✓ Problems with short or long term memory, attention, concentration
- ✓ Difficulty planning, organizing and carrying out daily tasks, or solving problems
- ✓ Trouble understanding what is said, read, or communicated
- ✓ Difficulty with reading, spelling, calculations, or writing
- ✓ Trouble making decisions, poor judgment
- ✓ Not aware of physical, thinking, or behavioral problems

### Sensory

- ✓ Changes in taste, smell, touch
- ✓ Ringing in ears, hearing loss
- ✓ Increased sensitivity to sounds, lights, distractions
- ✓ Blurred, double, or loss of vision
- ✓ Trouble seeing clearly, walking, or using arms
- ✓ Unequal pupils—one large, one small pupil (may occur after serious Physical or Thinking signs become apparent)



### Behavior

- ✓ Change in behavior, personality, or self image
- ✓ Trouble sleeping/insomnia
- ✓ Needing to sleep long periods
- ✓ Lack of initiative or motivation
- ✓ Irritable, anxious, overreacts to situations or other emotional change
- ✓ Inappropriate behavior, impulsivity
- ✓ Lack of interest, motivation, overdependency
- ✓ Difficulty adjusting to home, school, work
- ✓ Mood swings, depression
- ✓ Sexual inhibition/disinhibition
- ✓ Increased risk of substance abuse

## Children

**Young Children** are at high risk of injury but the majority of injuries are not serious.

### Signs include:

- ✓ High pitched crying in infants
- ✓ Fussiness or irritability
- ✓ Won't nurse or eat
- ✓ Changes in behavior that are not developmentally related
- ✓ Change in way they play and relate
- ✓ Develops problems with words or sentences
- ✓ Listless, tires easily
- ✓ Loss of balance, unsteady walking

### Older Children/Adolescents

- ✓ Reduced stamina
- ✓ Reduced ability to adapt
- ✓ Subtle or major personality change
- ✓ Diminished ability to concentrate, process information and remember/recall in school
- ✓ Difficulty with abstract thinking
- ✓ New learning a challenge; knowledge prior to injury more easily retained
- ✓ Academic/social difficulties

**Persons with TBI may be at higher risk during police encounters or in the justice system due to these specific signs and symptoms**

- ✓ Lack of awareness and self monitoring
- ✓ Act fearful, uncooperative, or intoxicated
- ✓ No memory of events or interaction
- ✓ Slowed reaction time and mental processing
- ✓ Altered judgment
- ✓ Agitation/outbursts
- ✓ Difficulty sizing up a situation and responding appropriately
- ✓ Unable to understand what is said, read, or signaled by another
- ✓ Communication problems
- ✓ Speech difficulties
- ✓ Slow information processing speed
- ✓ Difficulty communicating in court system

## Main Functions of the Brain

