

Traumatic Brain Injury (TBI)/Concussion

From 2008-2012 in Washington State 6,716 people died from traumatic brain injury (TBI), an average of 1,343 people per year. Of these, 59 percent (3,981 deaths) were unintentional; 39 percent (2,635 deaths) were intentional (suicide and homicide); and 2 percent (100 deaths) were of undetermined cause, legal intervention, or other intents.

For unintentional TBI, older adult falls was the leading cause of TBI death with 1,876 deaths; followed by motor vehicle occupant injury with 953 deaths. Suicide by firearm (2,092) and homicide by firearm (216) were the leading causes of intentional TBI, making up 79 percent and 8 percent of intentional TBI deaths. Firearms are the most lethal method of suicide and homicide. Assault is the leading cause of TBI death among children ages 0-4.

From 2008-2012, hospitalizations for non-fatal TBIs added up to 23,379, an average of 4,676 people per year. Thirty-two percent (32%) were due to falls among older adults, followed by motor vehicle occupants - 12 percent (12%) of TBI hospitalizations. Results of non-fatal TBIs can range from minor memory and functional deficits to long-term disability, placement in skilled care facilities, and being in a persistent vegetative state.

A reason older adult who fall have more TBIs now than in the past is the use of blood thinning drugs, such as Coumadin and Plavix. Even a relatively mild bump on the head can cause a bleed that puts pressure on the brain and, if not treated, can lead to brain damage or death.

Key Messages to Help Reduce Risks

- ◆ These injuries are preventable - families can reduce their risk:
 - Buckle your seat belt correctly every time you ride in a motor vehicle.
 - Make sure **everyone** riding with you is buckled in correctly – whether a child safety seat, booster seat, or seat belt.
 - In a crash, anyone not restrained is a heavy, loose object that can hit and injure others. They are also tossed out of the vehicle, and often run over or crushed.
 - Never drive under the influence of alcohol and or other drugs.
 - Reduce distractions - please do not text, talk on cell phones, or do other distracting actions.
 - Keep your eyes and your mind on the road.
 - Prepare for the unexpected when driving: an animal or child darting into the road, debris falling off a vehicle, unexpected lane changes, etc.
 - Wear an appropriate helmet for your sport: baseball, football, ice hockey, or boxing; bicycling, skateboarding, and inline or roller skating; snow skiing, sledding, and snowboarding; riding an ATV, scooter, or motorcycle; and horseback riding or rodeo events.

Related to sports-related concussions, Washington State's Zach Lystedt Law passed in 2009: (RCW 28A.600.190). Many states have since passed similar laws for youth sports concussion.

Key provisions of the law:

- ◆ Youth athletes suspected of getting a concussion or head injury must be removed from play or practice. "When in doubt, sit them out".
- ◆ Before returning to play, youth athletes must get written medical clearance from a licensed health-care provider trained in the evaluation and management of concussion. The health care provider may be a volunteer.
- ◆ Schools are to work with the Washington Interscholastic Activities Association (WIAA) to develop information and policies on educating coaches, youth athletes, and parents about the nature and risk of concussion. This includes the dangers of returning to practice or competition after a concussion or head injury.
- ◆ All student athletes and their parents/guardians must sign an information sheet about concussion and head injury prior to the youth athlete's starting practice each season.
- ◆ Private, nonprofit youth sports associations that use publicly owned playfields comply with this law.

To reduce risk of TBI and head injuries for all ages:

- ◆ Exercise to improve muscle strength and balance.
- ◆ Have your eyes checked by an eye doctor at least once a year. Vision problems can improve with the right glasses.
- ◆ Know and monitor your medications. Have the pharmacist review all prescriptions, over-the-counter medications, and supplements to reduce side effects and negative interactions.
- ◆ Reduce potential hazards in the house: put cords out of the way, secure loose rugs, fix poor handrails, improve lighting, etc.
- ◆ Wear well-fitting, non-slip soled shoes securely on your feet.
- ◆ Store firearms safely in the home. This means: secure firearms with trigger locks or in a gun safe when not in use, and store bullets away from the firearms.
- ◆ Remove firearms from the home of a depressed or suicidal person.
- ◆ Parents should ask other parents if they have firearms in their home and how they are stored before their child goes to play in that home. If there is doubt about the safety of someone's home, the parents should invite the children to play at their home instead.

Information and Resources

- Brain Injury Alliance of Washington www.biawa.org
- Brain Line (preventing, treating, and living with TBI) www.brainline.org
- Centers for Disease Control and Prevention www.cdc.gov/injury
- WA Intercollegiate Athletics Association www.wiaa.com
- WA State TBI Council www.TBIwashington.org