HEAD AND BRAIN INJURIES REQUIRE A RANGE OF DIFFERENT INTERVENTIONS – HEAD INJURY AWARENESS DAY

19 March 2015: Every year more than 5% of people globally sustain a serious brain injury following accidents or unintentionally bumping their head, according to statistics from the South African National Institute for Occupational Health (NIOH). To once again raise awareness among South Africans as to the causes and types of head injuries, *Head Injury Awareness Day* is celebrated on the 20th of March.

Dr Dominique Stott, Executive: Medical Standards and Services at PPS, explains that a head injury refers to injuries of the brain and/or structures of the head. “People can suffer head injuries as a result of a direct impact or penetration, such as a blow to the head, which causes an area of bruising to the brain. This is considered a localised injury which can be seen on a brain scan. However, should the patient suffer a brain injury due to rotation of the head, typical in high speed collisions, a more widespread injury is caused due to shearing of blood vessels in the brain which leads to a very complicated brain injury.”

The brain is confined within a rigid skull which does not allow for the brain to swell when an injury occurs, explains Dr Stott. “Therefore, brain damage that may follow a traumatic brain injury (TBI) may not necessarily be sustained from a severe bump to the head, but rather due to the handling of subsequent complications of swelling.”

Dr Stott points out that head injuries can be caused in various ways. “For example, a number of famous people have sustained traumatic brain injuries in recent years. Former Formula One driver, Michael Schumacher, suffered major brain damage resulting from a skiing accident and, more recently, US entertainer, Tracy Morgan, suffered serious head injuries during a vehicle crash, proving that there are various ways in which a person can sustain a head injury.”

When a person suffers a head injury leading to an open wound or concussion, they need to be referred to a casualty unit immediately, advises Dr Stott. “Before moving an injured person from the scene of the trauma, however, bystanders should ensure that the injured individual has not also sustained a neck injury, but also that the person is breathing properly and is reacting normally to ordinary commands such as ‘blink your eyes’.”

Should an injury occur on the sports field, the patient must be assessed by a medically trained person to address immediate problems such as bleeding, pupil size and vomiting. “A concussion does not always result from loss of consciousness. Longer-term signs of a concussion could include a change in mood or not thinking clearly, which should be identified as soon as possible. More serious concussions can lead to bleeding on the brain, which could result in major brain damage or even death.”

She explains that when a patient with a head injury arrives at a hospital/clinic casualty unit, the medical staff will conduct a Glasgow Coma Scale measure to determine the level of consciousness and neurological functioning of the patient. “This scale measures the patient’s response to commands. The numeric scale ranges from 3 – 15 and assists the emergency staff to determine the severity of the injury – the lower the number allocated to the patient, the more severe the injury is and the greater likelihood there will be of long term consequences”.

“In the long-term, head injuries could lead to post-concussion syndrome or epilepsy. There can be serious consequences to the overall brain functioning of a person who has suffered a severe head injury. When the person tries to learn new things, or to apply current knowledge, for example, damage to the brain might lead to cognitive deficits. Should this happen, it is possible that this could result in decreased social and occupational functioning of the injured party,” concludes Dr Stott.