SYNCOPE (FAINTING)

Syncope refers to loss of consciousness and happens when there is sudden interruption of necessary nutrients to the brain, especially oxygen. Syncope is said to have occurred when a child suddenly loses consciousness and the ability to maintain upright posture and then spontaneously recovers. Fifteen percent of youth, especially teenagers, experience syncope during childhood. Presyncope refers to feeling faint and lightheaded without loss of consciousness.

Causes of Syncope

Episodes of the "common faint" (also known as "vasovagal syncope" and "neuro-mediated syncope") are a reflexive, automatic reaction by the body to a particular stimulus or emotional distress. This response is excessive vagal nerve stimulation and diminished skeletal muscle response to some central nervous system stimulation (fear, anxiety or sudden emotional reaction to witnessing some upsetting event). Examples of school-based events include witnessing dissections, sensitive curriculum such as Human Growth and Development, having blood drawn or donating blood, etc. The result is a sudden drop in systolic blood pressure, inadequate venous return, lowered pulse rate, and reduced cardiac output. Symptoms may include weakness, dizziness, diaphoresis and pallor and can lead to loss of consciousness.

Syncope may have a more significant emotional basis, including hyperventilation and syncope-like events caused by more severe psychological conditions (e.g. generalized anxiety disorder or conversion reaction). Also, 10% of students with Nonepileptic Events (formerly called "pseudoseizures" or "psychogenic seizures") present with limpness and unresponsiveness. These children and teens typically faint in the presence of others and not while alone.

Syncope that occurs during physical exertion, especially when actually in motion, may have a more serious cause and may be due to a primary cardiac condition. Such events may be preceded by palpitations or chest pain and always warrant a more complete medical evaluation. Occasionally, syncope may occur following exercise, particularly if exercise is stopped suddenly rather than ended after a cool-down period; dehydration is typically an associated factor.

The "Choking Game" (also referred to as "The Fainting Game", "Passout", "Elevator", "The Good Kids' Game" and more) is activity aimed to decrease oxygenation to the brain and produce a feeling of euphoria. Various techniques for compressing the carotid artery are used; hyperventilation and breath-holding may also be factors. Unintentional strangulation is a risk (at least 82 children have died from this activity between 1995 and 2007 according to CDC statistics. Boys are much more at risk for death, and nearly all deaths were in children between 11-16 years of age). Warning signs include blood-shot eyes, marks on the neck, talking about the "game", frequent headaches and petechiae (pinpoint bleeding spots) under the skin of the face.

Syncope may be caused by orthostatic hypotension, a drop in blood pressure related to a change to a more upright posture, and may be the end result of different pathophysiologies.

Severe migraine headaches, minor head trauma, atypical seizures, low blood sugar, drug use including inhalants, anemia, pregnancy, difficult menstruation, and eating disorders are also potential causes of syncope.

Initial Management

WISHeS Illness and Injury Protocols:
Fainting
Unconsciousness

1. For presyncope (feeling faint and light headed), assist child safely to the supine position and elevate feet. Check pulse and respiratory rate. Provide as much as possible for cool air movement.
2. If the student is unconscious, check the airway, breathing and circulation, and elevate feet. Avoid moving the student if there are indications of physical injury from falling. Loosen tight clothing.
3. **Call EMS/911 if loss of consciousness is greater than one minute in a child with no known history of syncope.** Refer to electronic student health record for prefered hospital. Notify principal of EMS/911 call.
4. **Call 911 after 3 minutes in child with a known history of syncope (given vital signs are within normal limits);** if a medical plan exists for observing the child for longer than 3 minutes, follow the plan.
5. Once student has regained consciousness, provide fluids for hydration. Keep student in supine position for 10 -15 minutes and assist to a sitting position slowly.
6. Contact parent/guardian
7. Strongly encourage contact with primary health care provider for first episode of syncope, or ongoing episodes that have not been medically evaluated.
8. Document in electronic student health record.

Follow-up

1. Consult with school nurse
2. Alert child and family to preventive measures including controlling known risk factors such as prolonged standing, overheating, and dehydration.
3. Help the student increase awareness of stress and techniques to deal with stress, and offer reassurance. With the approval of the school nurse, parent and health care provider, specific prevention strategies can be taught. For example, applied muscle tension (crossing the legs in a seated position, then tensing and relaxing the thigh, abdominal and buttock muscles) improves blood circulation during stressful procedures (School Health Alert, June, 2010).

4. For student with a known tendency for vasovagal syncope, develop a plan for teachers to assist the child in the classroom. When experiencing warning symptoms, students should sit down on a chair and position head between knees close to the floor.