Syncope (Fainting Spells)

What is syncope?

Syncope (commonly known as "fainting" or "passing out") is a sudden loss of consciousness. Before losing consciousness, many people will feel nauseated, get lightheaded, and experience tunnel vision or "blacked-out" vision. Their skin may be pale, cool, or clammy. Occasionally, a person's limbs may twitch or jerk, which is often mistaken for an epileptic seizure. A person who has fainted will gradually resume consciousness after a minute or two and will slowly return to normal. Syncope often occurs in otherwise healthy children.

What causes syncope? What triggers these events?

Vasovagal syncope is the most common cause of fainting in children and adolescents. This is when there is a temporary decrease in blood flow to the brain. Syncope is very rarely a sign of a neurological disease in children, although it can be a side effect of medications used to treat certain neurological conditions.

In children and teens, the most common triggers for vasovagal fainting spells are environmental factors (such as heat, or a crowded or stuffy room), dehydration, exhaustion, emotional stress, pain, hyperventilation, low blood sugar, and anemia. In teens, eating disorders and pregnancy are other possible causes. Syncope can also occur with sudden position changes (such as standing suddenly) or after long periods of standing.

In some rare cases, a heart problem can be the cause of syncope in children and young adults. Syncope can also be a side effect of medications, including those used to treat certain neurological conditions.

How will my child be evaluated?

Often, a medical history and physical exam is all that is needed to ensure a child is safe and healthy after a fainting spell. However, your child's doctor may suggest further testing, especially if your child has had multiple episodes of syncope. Most commonly, an electrocardiogram (ECG) will be obtained to rule out any heart rhythm problems. Your child may be referred to a cardiologist (a heart specialist) for a more complete evaluation of the heart. If there is any concern that the spells may be caused by seizure, a test of brain waves (called an electroencephalogram, or EEG) may be obtained. Sometimes, blood work is ordered to check for anemia, low blood sugar, infection, or other medical problems. Brain imaging is usually not needed.

What can I do to prevent syncope in my child?

To prevent vasovagal syncope, your child should increase their fluid and salt intake. This helps increase blood volume and prevent low blood pressure. Also, it is important to identify and avoid triggers of syncope, such as dehydration, low blood sugar, stressful events, hyperventilation, or excessive fatigue. If you are concerned that a prescription medicine may be causing fainting spells, speak with your child's doctor.

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Some children or teens will experience **presyncope**, which is the sensation of dizziness, nausea, or darkening vision that occurs before fainting. If your child begins to feel as if they will faint, they should lie down with their legs elevated, or sit down with their head between their legs. This will help blood flow to the brain and prevent syncope.

What should I do when my child faints?

- 1. Make sure your child is lying flat with their feet elevated, and loosen any tight clothing (such as collars, ties, or belts) around their neck or body.
- 2. You may need to call for medical assistance if you suspect the person has injured their head, neck, or back during the collapse. If you suspect neck or back injury, do not move your child until medical assistance arrives.
- 3. You may also need to call 911 if your child does not regain consciousness after about a minute, or if they appear to have trouble breathing.

After your child regains consciousness, have them lie down for a bit longer and gradually move from sitting to standing. People often continue to feel dizzy, weak, or nauseated after fainting, and moving slowly will help avoid a second fainting spell. If there was no clear trigger or cause for the fainting spell, it is reasonable to call your child's doctor to ask for advice regarding care and evaluation of your child.

Resources and References:

https://www.ninds.nih.gov/health-information/disorders/syncope https://www.heart.org/en/health-topics/arrhythmia/symptoms-diagnosis--monitoring-of-arrhythmia/syncope-fainting

https://www.kidshealth.org/en/teens/fainting.html