

Why We Faint



By *Jamie Wells, M.D.* — January 24, 2017



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Video of Minnesota's Governor—Mark Dayton— collapsing while giving last night's State of the State address entered the media and digital echo chamber. Fortunately, it has been reported that he swiftly recovered, was assessed by EMTs at the site, went home and will be back today for another scheduled public appearance.

Moments ago, the Associated Press and multiple news outlets announced the Governor revealed he was diagnosed recently with prostate cancer. As a result, the picture is now clearer when put into context of yesterday's events.

In general, fainting is called “syncope” involving an abrupt, usually fleeting, loss of consciousness (LOC). Near fainting is near syncope characterized by no LOC. It is typically transient resulting from lack of blood and oxygen to the brain. Though it can occur from more benign causes like being overheated, it is of critical import to ascertain the etiology as more significant triggers can exist that warrant acute and ongoing medical intervention. This also serves to guide prevention for future. Routinely, there is no determined cause and it can happen to anyone.

The event itself can be quite harrowing especially if novel. Usually, it is the secondary impact from falling that is most consequential in that moment. For obvious reasons, fainting while already in bed is quite protective. If it happens when showering, swimming, driving or performing a complex task, then this can warrant additional trauma.

Keeping someone safe till proper medical evaluation gets underway is a step we can all take to avert progression or a worsening cascade of events.

Head and neck trauma, drowning or injuring another person are certainly issues that can be an unfortunate result of syncope. This is why if it is due to a chronic condition or medications, for

instance, certain proactive measures should take place to avoid danger and any untoward effects in the first place. However, the inciting factor can be elusive.

Why Do We Faint?

There are innumerable reasons. A low volume state can be a culprit. These situations can involve acute or chronic blood loss from accidents, violent crime or even menstruation, for example. Anemia can result from any of the aforementioned, especially in the acute setting with rapid blood loss. In teenagers suffering from excessive bleeding with periods (aka menorrhagia), passing out can be the sign that a more substantial condition is the problem. Bleeding disorders can be diagnosed with this presenting symptom. Menstruating females, in general, tend to lose iron each month and often battle an intermittent iron deficiency anemia which can lead to lightheadedness and syncope when more severe and sustained.

Profound dehydration due to inadequate hydration and electrolyte repletion upon heavy exertion or secondary to a stomach bug can lead to lightheadedness from low blood pressure. Hypoglycemia and other electrolyte imbalances can prompt fainting; hence, why a diabetic—in particular—needs to be more careful.

Vasovagal syncope is the most common form and typically presents without long-term adverse effect. Often, but not always, an identifiable source of the sudden drop in heart rate and blood pressure can be determined. Some need to drink more fluids in the summer when in cramped auditoriums and at risk of overheating. Some react to needles for blood draws or shots or just seeing blood, for instance, with an exaggerated surge of parasympathetic nervous system response. Because the body is traditionally in harmony with its own parasympathetic and sympathetic nervous systems, each plays a role in maintaining optimal equilibrium of heart rate, blood pressure and body dynamics. The former controls daily functions like breathing and digestion so requires a slower heart rate. The latter kicks in to flee from peril and harm which enacts a precipitous rise in adrenaline and cortisol (aka stress hormones) so the heart rate and blood pressure ascend as blood is prioritized for the brain, heart and lungs—allowing you to survive danger.

Those with significant anxiety or needle phobia or experience of a stressor get an exaggerated parasympathetic response. This is why procedures on patients should be performed while seated—you never know who is going to pass out unless they have a known history. It is unpredictable with needles— young adult males have a higher predilection, for example.

Arrhythmias (aka irregular heart rhythms or heartbeats) or other heart conditions can induce fainting. This can be from the actual heart or a consequence of medications for same. When it occurs with exercise, a more concerning origin can be to blame. Issues of the neurologic system like seizures can be additional offenders.

In the elderly, urosepsis (aka a urinary tract infection that has ascended beyond the urinary tract) routinely presents with lightheadedness and fainting. Infections themselves can also be dehydrating.

Certain medications, substances (e.g. alcohol), toxins, or procedures can cause disorientation and

subsequent fainting. Getting up too quickly for someone with underlying disease can provide occasion as well. The list goes on with respect to alternate driving forces that can provoke syncope.

Bottom Line...

Not all syncope is the same, so medical care should be sought urgently. Proper diagnosis upon prompt evaluation is essential for prevention, determining the best treatment plan and discovering any secondary effects from the fall. For one person, drinking more water on a hot day might do the trick. For another, implantation of a pacemaker could be the required solution.

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