

Live Healthy and Be Well!

“The High Points about Low Blood Sugar”

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One of the biggest causes of altered mental status, “passing out” or people being found unresponsive by friends, family, or EMS personnel is very easily diagnosed, and very easily fixed and corrected. If someone presents this way, medical personnel know one of the first things they should do is check the blood sugar level. High blood sugar can cause diabetic coma, but more common is low blood sugar for one reason or another.

Hypoglycemia literally means “low sugar blood.” The glucose level in the blood has dropped below normal levels, causing symptoms – but especially sensitive to this situation is the brain, which depends on a steady stream of glucose as fuel for all the operations it is constantly performing (even when you sleep). It can produce a variety of symptoms and effects but the principal problems arise from an inadequate supply of glucose to the brain, resulting in impairment of function – a condition called *neuroglycopenia*. The effects of mild hypoglycemia can range from mild confusion and sweating to moderate dysphoria, and a lessening of consciousness. Severe hypoglycemia is a medical emergency because it can result in seizures, coma, and can eventually be fatal or cause permanent brain damage if not treated quickly.

There is a three prong test known as “Whipple’s Triad” which is used to verify and diagnose true hypoglycemia.

1. Symptoms known to be caused by hypoglycemia (confusion, altered mental status)
2. Low glucose at the time the symptoms occur (verified)
3. Reversal or improvement of symptoms or problems when the glucose is restored to normal, or by ingesting glucose.

Many people feel shaky and lightheaded if they haven’t eaten in a while, and may self-diagnose hypoglycemia, this condition is usually helped by changing your eating patterns and remembering, like our mothers told us, not to skip meals!

Diabetics are very familiar with the opposite condition, or *hyperglycemia* (high sugar blood). For that reason, they adjust their diet, take medicines, and even sometimes inject insulin to keep their blood sugar controlled. The preferred range of blood glucose is 70ish to 110ish. As with anything else, “normal” is different for different people, so if you see glucose of 120 on your lab, don’t worry too much. If you are consistently high, you may be “pre-diabetic” and need to be seen and treated. However, it is these medicines to control blood sugar that are often the culprit leading to hypoglycemia. On the other hand, if your glucose is often much below the 50 to 60 range, you may feel some of the symptoms of low blood sugar.

The most common forms of hypoglycemia occur as a complication of treatment of diabetes with insulin or medicines taken by mouth. Hypoglycemia is much less common in non-diabetic persons, but it can occur, and at any age. Among the causes in non-diabetics are excessive

insulin produced in the body – also known as *hyperinsulinemia*. This can result from such things as in insulin secreting tumor (usually in the pancreas) called an *insulinoma*. There are some natural genetic conditions that can lead to too much insulin, as well as medications, poisons, alcohol, hormone deficiencies, prolonged starvation, some infections, and organ failure. If you are interested in a very detailed list of the causes of hypoglycemia, I would refer you to look up this topic at <http://www.enwikiopedia.org/wiki/hypoglycemia> where they have an exhaustive list of causes in alphabetical order.

The treatment of hypoglycemia is, obviously, to restore the normal glucose level in the blood. Patients given sugar after passing out from hypoglycemia tend to respond and return to normal almost immediately. If you are not a diabetic, have consistently low blood sugar, meet the criteria of Whipple's Triad, or have ever had any of the symptoms talked about above, you should see your health care provider for a workup to determine the cause. If you are diabetic, take oral meds and/or insulin and have similar issues, you should keep some form of sugar nearby you at all times (candy, juice) in case you feel these symptoms. And, you should also see your provider to have your diabetic medicines or insulin adjusted – because this should NOT be a common occurrence for either situation.

We really do enjoy hearing from you with any questions, concerns, or ideas for future columns and/or health and wellness related issues for the *Georgia Mountain Laurel*. Please send an email to rabundoctor@gmail.com, or call us at 706-782-3572, and we will be sure to consider your input. This and previous articles can be now be found on the web at www.rabundoctor.com in an archived format. If you use Twitter, then follow us for health tips and wellness advice @rabundoctor. Like and follow our Facebook page at [facebook.com/rabundoctor](https://www.facebook.com/rabundoctor). Until next month, live healthy and be well!