

HYPOGLYCEMIA

Another Blood Sugar Problem

**LOW BLOOD
SUGAR LEVELS**



Hypoglycemia

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Disclaimer

We hope you enjoy reading our report, however we do suggest you read our disclaimer. All the material written in this document is provided for informational purposes only and is general in nature.

Every person is a unique individual and what has worked for some or even many may not work for you. Any information perceived as advice by must be considered in light of your own particular set of circumstances.

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Non-Diabetic Hypoglycemia

If you are a person who is not diabetic but your blood sugar levels tend to drop too low sometimes, then it is possible that what you are experiencing is ‘non-diabetic hypoglycemia’.

There are two types of non-diabetic hypoglycemia – ‘fasting hypoglycemia’ and ‘reactive hypoglycemia’.



Fasting Hypoglycemia

A person is diagnosed with fasting hypoglycemia if their blood test shows that their blood glucose level has gone below 50 mg/dL.

For non-diabetics who have fasting hypoglycemia, the symptoms may manifest due to a serious illness and/or this can be caused by several factors. These include:

- Fasting hypoglycemia may occur to people who have not eaten anything for eight hours or longer.
- Taking herbal supplements such as cinnamon, ginseng and fenugreek.
- Binge-drinkers may experience alcohol-induced hypoglycemia if they have not eaten anything for the preceding 24 hours. Alcohol-induced fasting hypoglycemia is one grave complication of alcohol intoxication and without prompt treatment may lead to coma or death.
- Medications such as salicylates and other types of pain relievers and antibiotics may also cause fasting hypoglycemia.
- Illnesses such as tumor in the pancreas and those that affect the kidneys, liver and heart may also lead to fasting hypoglycemia.
- Sepsis, which is a serious infection, can also cause hypoglycemia.
- Hormonal deficiencies or having a shortage of production of certain hormones, such as epinephrine, cortisol and glucagon can lead to fasting hypoglycemia.

While any of these can cause hypoglycemia, a combination of factors will have a compounding affect, for example, if someone is ill or has an underlying condition is also affected by one or more of the discretionary causes, they are more likely to experience a hypoglycemic episode.

Reactive Hypoglycemia

Reactive hypoglycemia occurs when the blood glucose level goes lower than 70 mg/dl, just like people who have diabetic hypoglycemia. Although the causes of reactive hypoglycemia can be different from diabetic hypoglycemia, the treatments used and the symptoms that manifest can also be similar.

The exact causes of reactive hypoglycemia are still unknown, but some experts believe that the following can be possible causes of reactive hypoglycemia:

- Having undergone surgery of the stomach, which makes the passage of food to the small intestine quicker than normal.
- Not having enough glucagon hormones in the body. Glucagon has the opposite effect of insulin which means it promotes an increase of blood glucose levels.

- Excessive insulin, triggered by carbohydrate intake but persisting beyond its needed time, scavenging too much glucose from the blood.

Diagnosing Non-Diabetic Hypoglycemia

Blood Test – this is a basic test that will be administered to find out if a person is hypoglycemic. The result of this test is also used as a starting point by doctors to determine what is causing the problem.



Oral Glucose Test – This test is done after an individual has fasted for eight hours. This is when the patient will be given a glucose drink and then his blood glucose levels will be checked after one hour and then again after two hours, to determine the amount of increase that has occurred to their blood glucose levels.

Fasting Tests – This is when a person will be asked to undergo an overnight fast, or in some cases they will be asked to fast for 72 hours. The blood sugar levels will be checked twice after an overnight fast. After the 72 hour fast, the doctor will then check whether the blood glucose level has dropped.

Tips to Prevent Hypoglycemia

If you are hypoglycemic, it means your blood sugar levels have dropped below 70 mg/dl. If you have a history of hypoglycemia, you are probably aware that this can happen suddenly and without warning. It can happen after engaging in exercise or any physical activity. It can also occur if you skip or delay a meal.

It is very possible that a person may be unaware that hypoglycemia is the cause of their symptoms. If you experience symptoms of hypoglycemia under the conditions described above, take steps to check it out. Either see a doctor or buy an inexpensive blood glucose metering kit, and use it when feeling affected.

Symptoms can be varied, but include shaking, fatigue, hunger, anxiety, irritability and heart palpitations. The person may be disorientated and confused, with slurred speech, even acting as though drunk.

These are all symptoms of a brain desperately short of glucose.

Hypoglycemia can be mild, but it can also be extreme and cause coma and even death. Aside from knowing the symptoms of hypoglycemia, it is equally important to know what you can do to prevent such an episode from occurring.

There is also a condition termed “Hypoglycemia Unawareness” which is discussed in more detail below.

Regular Monitoring

Regular monitoring of your blood glucose level is an important routine if you are a diabetic, especially insulin-dependent (type 1) diabetics. However, even if you are not diabetic but have drops in your blood sugar levels, it’s worth monitoring yourself.

Knowing your blood sugar reading at certain times of the day (relative to mealtimes and fasting periods) is important. You will be able to recognize the signs and symptoms of experiencing low levels of blood sugar.

Regular monitoring is a first step to keeping hypoglycemia under control. The monitoring frequency may largely depend on the type of treatment plan that you have.

Medications

Make sure that you are aware of medicines that can cause episodes of hypoglycemia. Always ask your health care provider for advice regarding the scheduling of any medications you may be taking.

Insulin-dependent diabetics must be very aware of the balance between food intake, energy expenditure and dosage.

Type 2 diabetics who are taking medication which reduce blood glucose levels or no-diabetics whose medication may have this effect need to be mindful of the same things.

You can also ask for help from your doctor about making adjustments in the schedule or dosage of medications in case you have changes in your daily activities, such as increased exercise or reduced food intake.

Meal Planning



Meal planning is another crucial aspect of any blood sugar management plan. To ensure that you prevent any episodes in the future, you may like to consult a dietician. It is a must that you eat the right foods at the right times.

You don't want to hurt your efforts in keeping your blood sugar levels within a safe range.

Choose your food types wisely. A small amount of high-sugar food may be required and is usually necessary if blood sugar levels have dropped below recommended levels.

However, don't think that at other times you should be consuming sweets or high-GI foods as a matter of course. Doing so will cause sugar swings, including low blood glucose as part of the cycle, due to your body's insulin response to the sugar.

If your diet consists of proteins, healthy fats and complex carbohydrates, eaten at regular mealtimes, you are much less likely to experience a hypoglycemic event than if you consume sugary foods, or skip meals.

Physical Activity

Physical activity is one of the best ways to manage your blood sugar levels while also keeping your overall health in tip top condition. If you are subject to hypoglycemic episodes, it is wise to check your blood glucose levels before indulging in any strenuous physical activity.

If you are exercising or playing sport, do not forget to have your snacks ready to eat in between these activities if your blood glucose level goes below 100 mg/dl.

Blood glucose monitoring should also be done at regular intervals when you are engaged in physical activity, especially for an extended period of time.

Emergency Supplies

Remember that being prepared will help spare you from any dangerous episodes of hypoglycemia. Be aware of early warning signs and symptoms and be aware of the times of day when your blood glucose level tends to drop.

If you are driving or traveling, always make sure that you have glucose tablets, hard candies or any food that will serve as a fast-acting carbohydrate source.



Make sure you always have something handy so that you can prevent a hypoglycemic episode quickly and safely.

Understanding HU - ‘Hypoglycemia Unawareness’

Hypoglycemia Unawareness (HU) is a condition in which the symptoms of low blood sugar levels become less noticeable to the person affected. They have literally lost awareness that their reality has changed and they are entering a hypoglycemic episode!

The loss of awareness of their hypoglycemia trouble signs is not only troubling but it can also be dangerous.

What Causes Hypoglycemia Unawareness?

Hypoglycemia Unawareness occurs as a result of repeated occurrences of very low levels of blood sugar which lead to the impairment in the body’s ability to produce stress hormones.

The job of these stress hormones is to cause the body to make changes to the current state (in this case hypoglycemia).

When these hormones are not released, or there is an inappropriate response to them, there is no impulse, voluntary or involuntary, to rectify the situation.

In turn, the person affected will not be warned of their problem, thereby making them totally unaware that a drop in their blood glucose levels are occurring.

When the body is no longer capable of triggering the secretion of a hormone called epinephrine, it also becomes unable to generate the visible and experienced symptoms of hypoglycemia, such as sweating, tingling, numbness, anxiety and palpitations.

This is common particularly to people who have been hypoglycemic for several years, knowingly or unknowingly.

Knowing whether or not you are subject to hypoglycemia is not a factor of Hypoglycemia Unawareness – the “unawareness” relates to your body’s lack of response, not whether you have been diagnosed.

The Importance of Glucagon and Epinephrine

Normally, when there is a significant drop in blood sugar, the body automatically exerts an effort towards increasing it by releasing epinephrine and glucagon. The

hormone glucagon serves as the major counter-regulatory hormone that signals the liver to release glucose which has been previously stored by the body.

Epinephrine is also tasked to send signals to the liver telling it to increase the production of glucose. However, for people with long-term diabetes these hormones are no longer working as efficiently as they once were.

As a result, their symptoms will become subtler as it gradually disappears.

Consequently, their blood sugar levels will continue to drop to very low levels, and can result in the person becoming unconscious and no longer able to respond.

Without immediate treatment, the person may suffer from seizure, coma and/or brain damage.

Alcohol Consumption Increases Risk of Hypoglycemia Unawareness



Indulging in alcoholic drinks can increase the risk of not noticing a drop in blood glucose levels. This is because alcohol numbs the senses and therefore makes the brain less capable of acknowledging what is happening in the body. As the saying goes, “No sense, no pain.”

In addition, the production of glucose that is important for raising blood sugar levels can become blocked, thus making the symptoms of hypoglycemia less recognizable.

Hypoglycemia Unawareness is Reversible



Hypoglycemia Unawareness affects more women than men, and can also occur in people who have type 1 or type 2 diabetes. The good news is that research reveals that people who have HU can help their systems become capable again of recognizing the symptoms of low blood sugar.

This can be made possible by avoiding frequent deep drops in their blood sugar levels. When the necessary measures have been forthcoming, and lows have been prevented for at least two weeks, the awareness of symptoms improves.

According to a study conducted by Dr. Carmine Fanelli, the frequency of hypoglycemia can be prevented by raising the target of a person's pre-meal blood sugar reading to 140 mg/dl. As the person's pre-meal blood sugar levels became higher their bodies regained the symptoms of having low blood sugar.

In addition, the responses of the hormones that signal the body about the occurrence of low blood sugar, also returned to almost normal, within just a few weeks of having reduced lows in blood sugar levels.

Conclusion

Hypoglycemia is nowhere near as prevalent today as hyperglycemia, and most of the publicity we see is about reducing high blood sugar.

However, hypoglycemia does occur. Its effects in mild cases can be frightening and disconcerting, in extreme cases dangerous and even deadly.

Perversely, it can affect those who normally have high blood sugar, if they are medicating to reduce those levels.

It can also affect non-diabetics for the reasons explained in the article. Awareness and preparation can prevent a hypoglycemic episode from developing into a dangerous event.