Unraveling The Diabetic Binge

Solving The Uncontrollable Urge to Eat and Eat Despite Knowing the Consequences

By Eliot LeBow L.C.S.W., C.D.E

Hypoglycemic reactions cause many problems for people with diabetes. That is why it is so important to eat or drink something as soon as possible when a low blood glucose reaction occurs.

Generally, people will have a snack, glucose tablet, or juice drink to counteract the hypoglycemia. However, it is possible to "overcorrect" for the low blood glucose—and start to binge. The bingeing behavior that begins can create more challenges for even the most astute person with diabetes.

What Is a Diabetic Binge?

The diabetic binge begins after the appropriate grams of carbohydrates have been ingested to handle the hypoglycemic reaction. If you continue eating after this point, it's called a diabetic binge.

Physical reasons fuel this behavior and make it difficult to stop. There are two approaches to managing the diabetic binge and this seemingly uncontrollable behavior. This is common in most people with diabetes while blood glucose remains low even though the reaction has been taken care of; this is what I've seen in my clinical experience. The brain continues to release neuropeptides, continuing an individual's hunger.

The Diabetic Binge is not an Eating Disorder

To fully understand why this is such an important issue for people with diabetes on insulin management, you'll need to move away from how society views bingeing. I say this because the majority of diabetics don't binge due to poor self-control during a hypoglycemic reaction.

Anorexia and Bulimia are process addictions, due to poor body image.

For people with bulimia, food is used as a coping mechanism to reduce stress and negative emotions in much the same way that alcoholics use alcohol. In both of these cases, the end result is more stress and negative feelings than they were feeling prior to drinking a case of beer or drowning in a bag of Oreos.

Some people with diabetes do use food as a coping mechanism, but unlike most disorders or addictions, it is not the sole reason for their bingeing.

The Typical Hunger Cycle

Biologically, when the stomach runs out of food, our blood glucose levels drop, triggering the message to the brain that it is time to eat. At that point, the brain releases neuropeptides, which trigger hunger.

When we have eaten enough, our fat tissues tell the brain that it is time to stop eating. The brain reduces the production of neuropeptides and simultaneously releases an appetite suppressant. Unfortunately, this part of the process is not instantaneous, which allows us to overeat. If we eat too fast, more food than necessary enters the digestive system prior to the suppression of our appetite, and that results in overeating.

For someone with diabetes, there is a tendency to binge during a hypoglycemic reaction, due to the bodies natural response to low blood glucose. Many people with diabetes feel bad about eating so much without knowing that bingeing during a reaction is normal and very difficult to prevent. Many times, people with diabetes go around thinking that they have a bingeing disorder and may even become depressed over many failed attempts to stop.

Don't Feel Guilty about Diabetic Bingeing

Here is why you shouldn't feel guilty when diabetic bingeing occurs.

A hypoglycemic reaction will send the message to the brain that it is time to eat, and the brain starts to release neuropeptides, triggering hunger.

For the diabetic who has taken in the appropriate amount of carbohydrates to handle their hypoglycemia, this is often not enough to reduce their appetite. The reason our appetite continues is because our fat tissues don't tell the brain that it is time to stop eating till our blood sugars return to normal. That causes the neuropeptides to continue to be released into the body. Therefore, enforcing the message "I am hungry" while the appetite suppressant fails to release.

The lower the blood glucose goes and the longer the blood glucose stays low, the stronger the feeling of hunger grows. During this process, the majority of people with diabetes feel like they are starving and fear that they will go into a hypoglycemic coma. In many ways, that is exactly what the body is telling the brain.

Since the appetite suppressant doesn't get released until blood glucose levels return to normal, people with diabetes tend to binge during this period. This is natural and normal-considering the biological circumstance.

The brain is tricked into thinking it needs to eat more to respond to how low the blood glucose level goes and the length of time it takes to recover.

Furthermore, it is difficult to think properly during this period (as you probably know!), because low blood glucose levels impair thinking. This is due to a lack of glucose and an increase in oxygen to the brain.

Basically, low blood glucose levels hijack the brain, our survival instincts kick in, and we start to binge—and that's not your fault.

Stopping the Diabetic Binge Is Difficult

Trying to stop a diabetic binge is like trying to keep your hand on a hot stove—it's very difficult and against your natural instinct.

Our body's natural instinct is to withdraw the hand when we feel the heat; your body's natural instinct when your brain is receiving the "hungry" message is to eat.

Even when you know you have counteracted the hypoglycemic reaction (with food, a glucose tablet, or juice, for example), it is difficult to make yourself stop eating—because your brain is still receiving that "hungry" message.

Your body and brain remain on high alert in an effort to raise those blood glucose levels, pushing you to eat in the same way that the brain tells the hand to pull away from the hot stove.

Diabetic Binge Prevention

The first way to reduce diabetic bingeing and the quantity of hypoglycemic reactions is to maintain well-controlled blood glucose levels. The more your blood glucose levels fluctuate, the greater the impact reactions will have on the body's natural process to keep itself fueled—and the higher the risk of hypoglycemia.

It's important to acknowledge that every person with diabetes has hypoglycemic reactions. With that said, to prevent binge eating during a hypoglycemic reaction, you should realize what a difficult task this is and that willpower will be a major part of the equation. In Alcoholics Anonymous, it's called "white-knuckling," but not everyone can stop the binge.

Even for those who can, there will be times when it will get the better of them. So, regardless of which category you fit into, you need to have a plan for when it occurs. Start by testing your blood glucose levels often. The levels shown below indicate the risk of bingeing based on glucose levels:

- 70 mg/dL, (Low risk of bingeing)
- 60 mg/dL, (Medium risk of bingeing)
- 50 mg/dL, (High risk of bingeing)
- 40 mg/dL or below (Very high risk of bingeing)

For the "low risk of bingeing" category, just eat a small snack of your choosing or take some glucose tablets and retest 15 minutes later. As the American Diabetes Association (ADA) recommends, "If SMBG 15 min after treatment shows continued hypoglycemia, the treatment should be repeated. Once SMBG glucose returns to normal, the individual should consume a meal or snack to prevent recurrence of hypoglycemia."

For the "medium risk of bingeing," you should be aware and take care of your reaction as you normally would.

I suggest orange juice, drinking the quantity your body normally needs to get back to a

normal blood glucose level. Don't worry about being perfect. Aim for 120-160 mg/dL so you know it is taken care of.

If you feel yourself wanting to eat more, then have a low carbohydrate snack that you can follow-up with and eat slowly. Remember to retest 15 minutes later. The ADA says, "If SMBG 15 min after treatment shows continued hypoglycemia, the treatment should be repeated. Once SMBG glucose returns to normal, the individual should consume a meal or snack to prevent recurrence of hypoglycemia."

For the "high to very high risk" categories, follow the same plan as the medium level with the following change: retest every 10 minutes and adjust accordingly.

Use orange juice when available. You will need to drink a little bit more than the amount for a medium risk bingeing because you are at a higher risk of going into a diabetic hypoglycemic coma when you go below 40 mg/dL. Drink the quantity your body normally needs to get back to a normal blood glucose level. Stay calm!

Next, get a second small glass of orange juice or, for variety, have a small glass of lemonade (or another sugary drink) that you can sip while waiting out the hunger.

Distract yourself by calling a friend or watching a TV program you like or anything you can do to take your mind off the reaction. Do **NOT** go to sleep.

Vegetables are a good snack to curb the hunger. Make sure what you pick is something that you will really enjoy (if your cholesterol is normal, some dressing to dip them in would be good to satisfy the cravings). Be creative.

A low carbohydrate protein would be another good choice. I tend to favor an $1/8^{th}$ pound of tuna fish salad that I eat with a small fork. Eat your snack slowly. Have it ready. I get pre-made tuna fish salad at the grocery store. If I don't have a reaction that week, I have it for lunch before it goes bad.

Harm Reduction

The biggest problem with bingeing is the destabilization of your blood glucose levels. Let's work on preventing this.

When you end up bingeing, now what? Now you have one important task to do during this period of time. Keep paper and a pen on the refrigerator door.

When you take out the big tub of ice cream or whatever you are choosing to eat, scoop out or take out one serving at a time and write out the carbohydrates you're eating as you go along. Do not eat out of the tub or package. Total them when your binge ends.

Next, take fast-acting insulin to match what you just put in your body. You may feel sick from eating too much, but when everything is said and done, you will hopefully end up with a glucose level between 120-160 mg/dL instead of 400 mg/dL.

Conclusion

Diabetic bingeing is a physical response to the brain when it receives conflicting information about the status of the stomach and the need to eat. Messages of hunger hijack the human brain as long as your blood glucose levels remain low.

There are two ways to handle this hijacking and the binge that follows: one way is to prevent the binge and the other is to reduce the harm when a binge occurs.

After the reaction is treated, binge prevention techniques can be used to suppress the false messages of hunger that are caused by low blood sugars. This can be done by slowly eating foods that are low in carbohydrates such as vegetables and diverting the attention away from the remaining thoughts of hunger through activities such as talking to friends or watching a movie.

Harm reduction allows the binge to occur but utilizes carbohydrate counting to maintain normal blood sugars after the binge and reaction subside.

Overall, bingeing is not good for anyone, but it is quite normal for people with diabetes when blood glucose levels drop and cause hypoglycemic reactions. All people with type 1 diabetes will go through many reactions in a lifetime, but you can reduce the number of binges and find comfort in the fact that it is a physical issue and not fully in your control.

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