The Link Between Diabetes and Low Body Temperature

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Diabetes and Low Body Temperature: Managing Cold, Numb or Tingly Feelings

When you live with diabetes, it is not uncommon to feel cold or numb, especially in your extremities. Your core body temperature is closely tied to your metabolism, and since diabetes wreaks havoc on your metabolic processes, you are bound to sweat, shiver and shake more than the average person.

Part of the problem comes down to your diabetes management, but that is not the only force at play. Circulation, insulin levels, nerve problems and other lifestyle factors could be interfering with your natural heat regulation.

Find out what is causing your cold, numbness or painful tingling, and take steps to kick-start your internal heating system.

How Peripheral Neuropathy Leaves You Cold

When diabetes goes uncontrolled for a long time, the nerves in your hands and feet can sustain permanent damage. This sort of nerve damage in the extremities is known as peripheral neuropathy, and it can interfere with all sorts of regular sensations.

For many people, nerve damage leads to pain, numbness or tingling. You may feel a pins-and-needles sensation in your fingers that lingers for a long time, or you can lose sensitivity, making it more difficult to pick things up or feel different textures. In some cases, the opposite is true — heightened sensitivity makes any contact agonizing.

Since the nerves in your limbs also monitor temperature and send those signals to your brain, it is not uncommon for hands and feet to feel abnormally cold too. Coldness or numbness that stems from peripheral neuropathy often brings along some other common symptoms, like:

- Sharp pains.
- Cramps.
- A burning sensation.
- Loss of reflexes.
- Loss of balance.

If you haven’t noticed any strange symptoms in your extremities other than the cold feeling, you may be dealing with a different diabetic complication. Another type of neuropathy may be causing the trouble, or it could have more to do with your blood sugar levels or insulin usage.

How Insulin Impacts Your Body Temperature

Recent research has uncovered a link between insulin and temperature: insulin seems to work as an internal thermostat, helping to raise your core body temperature by triggering the burning of “brown fat” cells.

Since insulin heats up the body, it is no surprise that many type 1 diabetics (who have a depleted insulin supply) have a low core body temperature. In fact, a body temperature below 97F is one of the earliest signs of the disease. It follows that the elevated insulin levels associated with type 2 diabetes should warm your body rather than cool it. However, it is not quite so straightforward.

One theory behind the chill of type 2 diabetes centers around how long your insulin has been elevated. Chronically high insulin could exhaust the circuits that trigger the fat burning process, so the heat is never created.

Since your body still needs heat for important metabolic reactions to take place, it begins to store insulating fat instead of burning fat. Extra fat on your body interferes with blood circulation, and that can leave your arms, legs, fingers and toes feeling particularly cold.

Blood Sugar Factor

When your body is in need of glucose, it sends out a variety of signs and signals. From headaches and irritability, to trembling hands and ravenous hunger, most people will feel a few discomforts that are difficult to ignore.

As your blood sugar drops and hypoglycemia begins to set in, you might start to sweat even if it is not hot out, or your hands will get cold and clammy. This cold sweat can come shortly after blood sugar drops; in the case of severe hypoglycemia, the core body temperature could fall very low, leading to hypothermia.

Tips to Build Body Heat

If your cold extremities can be traced to neuropathy, insulin issues, or poor blood sugar control. So, the next step is to treat the source of the problem. Cooler weather can make things worse, so you may need to take extra precautions and be more proactive when it comes to warming up your body as winter approaches.

1. Stay Active

When the thermometer drops and the wind whips against the windows, working out seems easier said than done. However, your diabetes and body temperature will improve, so you should make an effort to get some heart-pumping exercise each and every day. Exercise helps to improve insulin sensitivity and keeps your blood circulating efficiently.

The great thing about exercising is that the effects last much longer than the activity itself. Your metabolism will stay elevated for hours after your workout, and that will keep you energized and warm.

2. Pack on Some Muscle

Along with cardiovascular exercise, add in some resistance training or light weight training to build muscle. While fat is a good insulator, muscle generates heat, and since it also revs up your metabolism, building more muscle can make a significant difference in your body temperature.

3. Get a Good Night’s Sleep

Trouble sleeping can account for your chilly feelings, especially if you have gone a few nights without quality sleep. The problem could be traced to problems with the hypothalamus, a region in the brain responsible for regulating body temperature.

Other experts suspect sleep causes your metabolism to slow, and that leads to a drop in body temperature. Whatever the precise cause, it is common to feel particularly cold and shivery when you are sleep-deprived.

4. Up Your Iron Intake

Iron helps your blood transfer nutrients and heat to every cell in your body, so if you are not getting enough, your extremities are not getting the energy they need to keep you warm. Moreover, your thyroid will lag if you do not take in enough iron, and that will make you feel even colder.

It’s vital you don’t let the cold interfere with your blood sugar testing. If your hands are too cold or numb to perform the test, warm them (carefully) with a hot water bottle, or around a mug of warm tea. Regular testing is the best way to stay on top of your diabetes management and make sure that cold or tingly extremities don’t lead to anything worse.