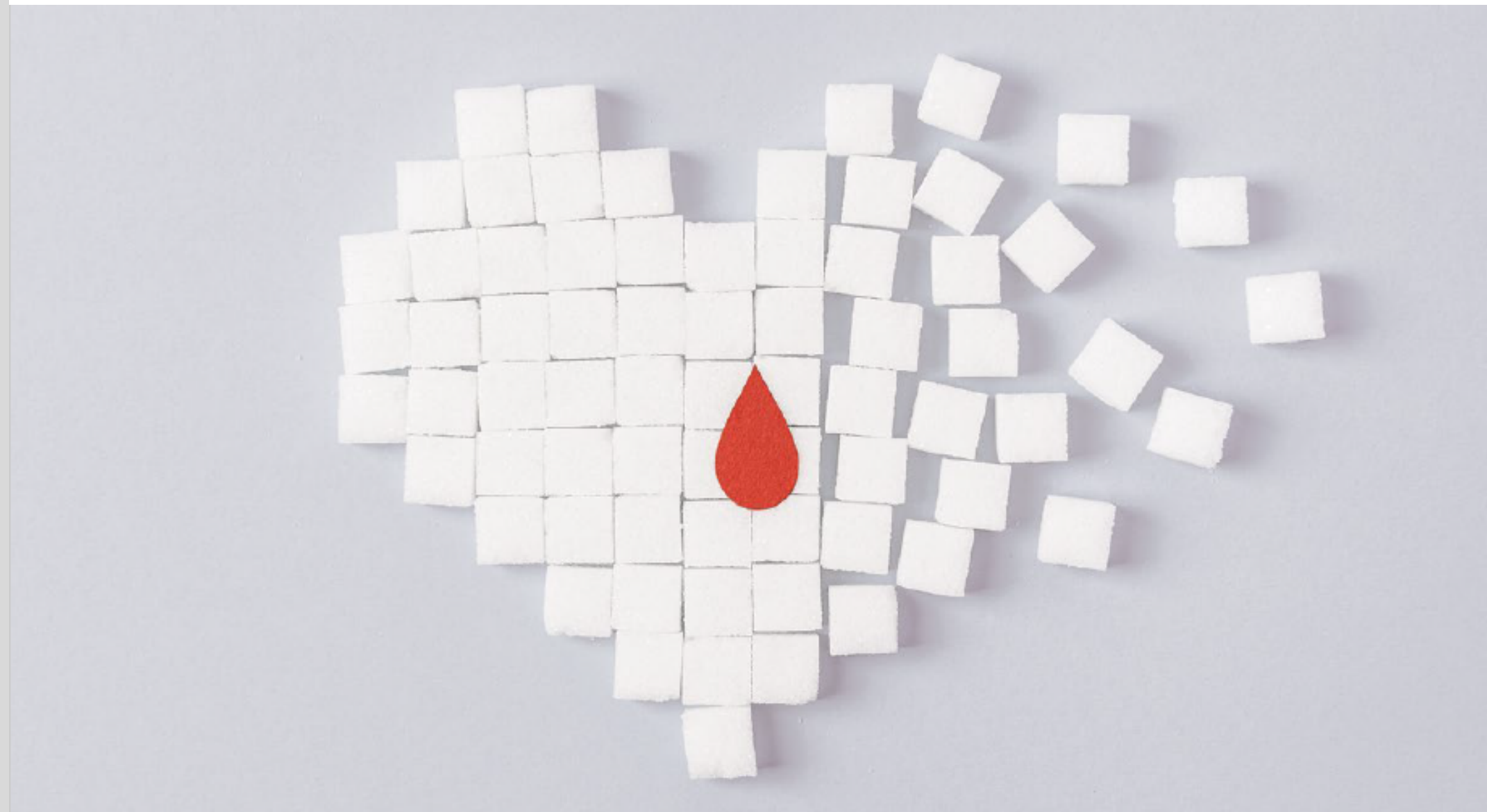




NOVEMBER 2020

Diabetes: A National Health Crisis



Diabetes is a leading cause of death in the United States and presents a growing danger for a shocking number of Americans. While almost [26 million Americans](#) have been diagnosed with this disease, [a CDC study](#) estimated that an additional 7.3 million people live with diabetes and are yet undiagnosed. A shocking [42%](#) of adults in the U.S. have a body mass index that indicates obesity, a factor that drastically heightens risk.

Diabetes is caused by the body's inability to create or effectively use its own insulin, a key agent in regulating blood sugar levels and providing energy to cells in the body. There are two prevalent types of diabetes. Type 1 diabetes accounts for about 5% of the diagnosed cases (approximately 1.6 million Americans) and effects the body's ability to produce its own insulin. Patients with type 1 diabetes must have insulin delivered by injection or a pump to survive. Type 2 diabetes is the most common form of this disease and occurs when the body becomes insulin resistant.

Though it is easy to overlook or ignore during the early stages, diabetes can have long term negative impacts on major organs. As the body's ability to access glucose decreases, damage can occur to important organs, including the heart and kidneys. The results can be disabling and even life-threatening.



Potential Long-Term Complications:

- Heart Disease
- Nerve Damage
- Kidney Damage
- Eye Damage
- Slow Healing
- Hearing Impairment
- Alzheimer's Disease

Education & Detection Are Key

Diabetes prevention starts with education. Many patients may be at risk of developing type 2 diabetes or pre-diabetes. According to the CDC, over [88 million Americans over the age of 18 are pre-diabetic](#). Weight is a key risk factor for type 2 diabetes, and patients who have a high body mass index are at a heightened risk. However, you do not have to be overweight to develop type 2 diabetes. Patients who begin accumulating fat mainly in the abdomen have been shown to be at greater risk than those who gain fat in other areas of the body. The risk of type 2 diabetes rises for male patients with a waist circumference of 40 inches and women with a waist circumference greater than 35 inches. Additionally, those who are less active are at a greater risk of diabetes. Other risk factors include family history, genetic predisposition, and age.



Early Warning Signs of Diabetes:

- Increased Thirst
- Frequent Urination
- Increased Hunger
- Rapid Weight Loss
- Fatigue
- Blurred Vision
- Frequent Infections or Slow-Healing Sores
- Darkened Skin, Usually in the Armpits or Neck

BECAUSE DIABETES RISK CAN BE DIRECTLY TIED TO OBESITY, HELPING EDUCATE PATIENTS ABOUT THE IMPORTANCE OF DIET AND EXERCISE CAN HELP MITIGATE RISK.

Prevention Starts With a Healthy Lifestyle

Because diabetes risk can be directly tied to obesity, helping educate patients about the importance of diet and exercise can help mitigate risk. Below are a few critical preventative steps patients can take.

- Exercise

At least 30 minutes of moderate activity that includes aerobic and resistance training every day can help patients lose weight, lower blood sugar, and boost insulin sensitivity.

- Eat Fiber

Foods like beans, whole grains, vegetables, and nuts that are high in fiber can help control blood sugar, maintain heart health, and promote a feeling of fullness to help with weight loss.

- Focus on Weight Loss

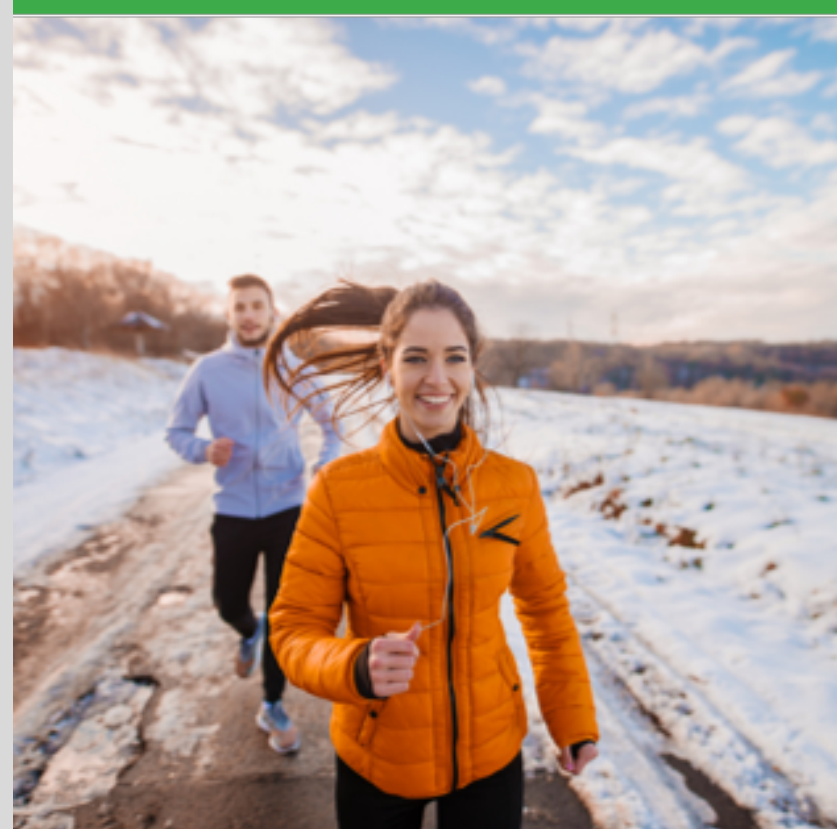
Studies have shown that patients at risk of diabetes who lost at least 7% of their body weight reduced this risk by at least 60%.

- Choose Healthy, Whole Foods

A diet that includes portion control and various food groups is key to ensuring proper nutrition and can help patients lose weight and control their blood sugar.

- Skip Diet Fads

Diets that focus on extreme weight loss by excluding or strictly limiting food groups may deprive patients of essential nutrients. Most importantly, the effect of these diets on diabetes prevention is not yet known.



The Hormone Connection to Diabetes

"The link between hyperinsulinemia and low testosterone is critical. I can't begin to tell you how many times I've seen insulin levels drop in insulin-resistant patients who get their testosterone levels optimized."

- Cory Rice, DO

As we age, both men and women lose testosterone. As testosterone levels decline, there is a high instance of developing belly fat around the midsection, which is an indicator of insulin resistance. This means the body is less effective at using the insulin it has and requires an increased amount to metabolize sugars. [A 2008 study](#) reported that 43% of men with type 2 diabetes had reduced levels of testosterone, and 57% had lower levels of free testosterone. Only 7% of men with type 1 diabetes had low total testosterone. By contrast, 20.3% of men with type 1 diabetes had low calculated free testosterone, similar to that observed in type 2 diabetes. The relationship between weight gain, a drop in metabolism, and loss of muscle mass may help contribute to this type of insulin resistance. Testosterone [has been shown to have a protective effect on pancreatic beta cells](#), which may help to support the production of insulin. Testosterone has a direct impact on building muscle, which increases the body's sensitivity to insulin.



If you have questions or have an experience that you would like to share about diabetes, please respond to this email.

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