Diabetes Type 2 — Saying Goodbye to Insulin: Three Case Reports

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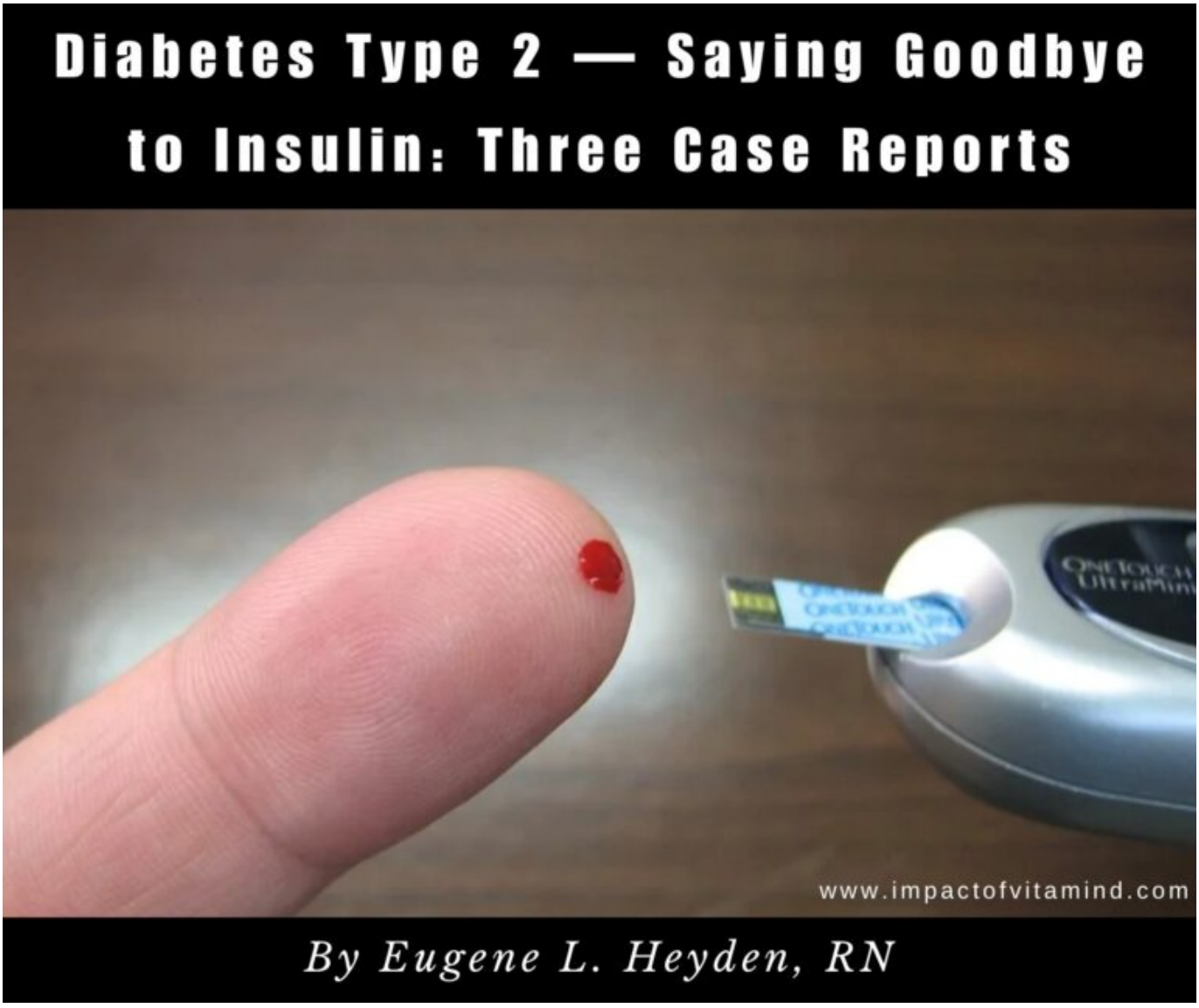

Last update:08-11-24

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"Therapeutic fasting is defined as the controlled and voluntary abstinence from all calorie-containing food and drinks from a specified period of time." **~Furmli et al., 2018**

"According to case studies and randomized trials, therapeutic fasting has been shown to reverse insulin resistance, resulting in the discontinuance of insulin therapy while maintaining blood sugar levels." **~Saeed et al., 2021**

"Therapeutic fasting has increasingly become popular among health care providers and patients as a lifestyle regimen that has multidimensional benefits. Recent evidence suggests therapeutic fasting is a safe and beneficial modality among T2DM [type 2 diabetes mellitus] patients." **~Nair et al., 2024**

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Could it be this easy? Imagine going from being an insulin-dependent diabetic to being someone off insulin, and in as little as 5 to 18 days! Could this be true? Is this even possible? It was for the three individuals we will meet in this article, individuals who accomplished this feat by following a particular therapeutic fasting regimen.

It's not that people can't routinely go from diabetic to non-diabetic, and in short order—sometimes within a matter of days (Schauer et al., 2003; Ku et al., 2017)! Surprisingly, this happens quite frequently to diabetic patients who have undergone gastric bypass surgery. Indeed, in one study *"nearly one third"* of gastric bypass patients who were insulin-dependent were off their insulin within a few days after surgery, although their weight did not decrease to any relevant degree (Schauer et al., 2003). So, let's be clear: Remission, rapid remission, from diabetes type 2, even insulin dependent diabetes type 2, is entirely within the realm of possibility. Now with that out of the way, we can get down to business.

But before we get to the stories of the 3 individuals in question, let's first take a look at the strategy employed. Nothing complex here! Under medical supervision, an individual fasts at least 3 days a week, basically creating 3 or more 24-hour fasting periods/week during which no solid food is eaten and no drinks providing calories are consumed. And get this! **This particular fasting strategy allows you to eat real food every day, even on the fasting days, so you never really go hungry.** The rules are quite simple. **1)** Medical approval and supervision required. **2)** On the non-fasting days, you eat two meals a day. **3)** Every meal that you eat should be low in sugar and refined carbohydrates. **4)** The fasting schedule is 3 fasting days

each week (or every other day). **5)** On the fasting days, you only need to skip one of the two meals you would ordinarily eat, but you fill the void with non-nutritive beverages, such as coffee and tea (without added calories), and bone broth. (Taking a daily multivitamin is recommended.) And **6)** You check your blood sugar 4 times a day during the period of time you are weaning off insulin, and adjust insulin dosages accordingly. That's pretty much it! And to maintain the status quo, you continue on the diet for a number of months, or perhaps for a year or longer. Now on to the case reports.

Patient 1: Robert

We'll give Patient 1 the name Robert. At the time the therapeutic intervention was initiated, Robert was 40 years old, and with a 20-year history of type 2 diabetes. Other health issues included high blood pressure and elevated cholesterol. In addition to oral antidiabetic medications, metformin 1 gram twice a day and Invokana 200 mg/d, Robert was taking insulin aspart, 22 units twice a day and insulin glargine 58 units at bedtime. But all this would change.

After fasting 3 times a week, following the protocol outlined above, at the 5-day mark Robert was off insulin and was maintained on Invokana alone. His pre-intervention A1c was 11 and dropped to 7 at the end of follow-up, some 7 months later. And on the fasting days, Robert reported that he had no difficulty following the diet and felt 'excellent' on the days he fasted. When all was said and done, Robert had lost 22 pounds, and his waist circumference was reduced by 5 inches.

Case 2: Kevin

Kevin (also a pseudonym) is 52 years old and counting, with a 15-year history of type 2 diabetes. Medical history included high blood pressure, elevated cholesterol, chronic kidney disease, and renal cell carcinoma, requiring the removal of the involved kidney. At the beginning of the therapeutic fast, Kevin was taking insulin lespro mix (38/32), 25 units twice daily. His pre-intervention A1c was 7.2. Let the

protocol begin!

Like Robert, Kevin followed a 3-times-a-week fasting schedule. At the 18-day mark he was completely off insulin and remained so until the end of follow-up some 11 months later, and without requiring the use of any antidiabetic medication. The fasting protocol continued for a total of 11 months. Kevin's initial A1c was 7.2 and dropped to 6 at the end of the fasting intervention. Reportedly, during the experience, Kevin felt "terrific." He looked a little better, too, having lost 23.5 pounds and 7.5 inches in waist circumference.

Case 3: Gregory

We'll call Patient 2 Gregory. Gregory is a 67-year-old gentleman with a 10-year history of diabetes type 2. His medical history was significant for high blood pressure and high cholesterol, and his diabetes was being treated with 1g of metformin twice a day and insulin lispro mix, 25–30 units in the morning and 20 units near the end of the day. Unlike Robert and Kevin, Gregory chose to fast every other day. His starting A1c was 6.8.

After fasting for 13 weeks, Gregory was off insulin and his metformin had been reduced by 75%—to be discontinued later on during the 11-month fasting trial. His final A1c was 6.2. Gregory was certainly pleased with the 20-pound weight loss and the 5-inch reduction in waist circumference he achieved. *"He subjectively reported the fasting was 'easy' and does not have the carbohydrate cravings he once had before he started the diet, and he also experienced higher energy levels."*

Note: The above case series and protocol is from Furmli et al., 2018, article link in References.

Commentary

The above case reports are quite remarkable, to say the least. And the strategy employed is about as easy as it gets. True, as with any diet, there is a little discipline and sticktoitiveness required, but achieving a major victory in the battle against diabetes (as in the discontinuation of insulin and perhaps all oral diabetic medications) is well worth the effort. Who wants this hanging over your head?

"Diabetes is known to be responsible for the development of multiple long term complications, which contribute to the disease's morbidity and mortality. For instance, diabetes is the leading cause of renal failure, new onset blindness, and nontraumatic lower extremity amputation in the United States. The complications of diabetes can be either vascular or non-vascular in nature. The vascular complications include retinopathy, macular edema, mono- and polyneuropathy, autonomic dysfunction, nephropathy, coronary heart disease, peripheral vascular disease and stroke. Non-vascular complications include issues with the gastrointestinal tract (gastroparesis), changes in skin color, increased risk of infections, cataracts, glaucoma, periodontal disease, and hearing loss." (Albosta M, Bakke, 2021)

Sounds like diabetes is nothing to fool around with. Agree? Sounds like diabetes should not be an acceptable way of life. Agree? It looks like we can fight back, and in a big way.

On a personal note: I followed the fasting routine outlined above for 6 consecutive weeks and found it easy to do. I normally eat two meals a day anyway, so I had a head start with respect to this aspect of the protocol. I found that skipping a meal every other day, 3 times a week, was like nothing at all—particular when a cup of bone broth consumed as a meal replacement took away my craving for food. And eating a diet low in sugar and refined carbohydrates was a piece of cake (without the cake), as there are so many good foods available from which to choose. All in all, I found this intermittent fasting regimen very easy to follow, and I lost a little weight along the way.

Will every insulin-dependent diabetic be able to say goodbye to insulin by following this particular therapeutic fasting regimen for 5 to 18 weeks? I'm pretty sure the answer is "No." But likely, doing so will help—with the possibly of at least

substantially reducing insulin and/or oral antidiabetic medication requirements. And losing weight by following this diet is a bonus and likely to be helpful in a personal battle against diabetes type 2.

Suggested reading

To review the case reports of 3 additional patients who were able to say goodbye to insulin by the aid of therapeutic fasting, follow the links provided and read the following:

Gavidia K, Kalayjian T. **Treating diabetes utilizing a low carbohydrate ketogenic diet and intermittent fasting without significant weight loss: a case report.** Frontiers in Nutrition. 2021 Jun 28;8:687081. https://www.frontiersin.org/journals/nutrition/articles/10.3389/fnut.2021.687081/full

Ku M, Fung J, Ramos M. **Therapeutic fasting as a potential effective treatment for type 2 diabetes: A 4-month case study.** Journal of Insulin Resistance. 2017 May 24;2(1):1-5. https://journals.co.za/doi/abs/10.4102/jir.v2i1.31

Recommended

There is power in fasting, and there is an excellent book that explains it all. I was invited to review and comment on the book pre-publication and wrote the following: *"**The Lost Art of Fasting in a Gluttonous World** places the science strongly behind the age-old practice of fasting. Intriguingly, fasting can be the antidote for many of our troubling modern diseases. The authors do a superb job in explaining the positive influences on the cardiovascular, immune, and neurological systems. You may need what fasting has to offer. Fasting is medicine! The book will explain. It will not disappoint."* To order the book, click here:

The Lost Art of Fasting in a Gluttonous World – Koinonia House (khouse.org)

References

Albosta M, Bakke J. **Intermittent fasting: is there a role in the treatment of diabetes? A review of the literature and guide for primary care physicians.** Clinical diabetes and endocrinology. 2021 Dec;7:1-2. https://link.springer.com/article/10.1186/s40842-020-00116-1

Furmli S, Elmasry R, Ramos M, Fung J. **Therapeutic use of intermittent fasting for people with type 2 diabetes as an alternative to insulin.** Case Reports. 2018 Sep 18;2018:bcr-2017. https://casereports.bmj.com/content/2018/bcr-2017-221854.short

Ku M, Fung J, Ramos M. **Therapeutic fasting as a potential effective treatment for type 2 diabetes: A 4-month case study.** Journal of Insulin Resistance. 2017 May 24;2(1):1-5. https://journals.co.za/doi/abs/10.4102/jir.v2i1.31

Nair PM, Silwal K, Kodali PB, Tewani GR. **Therapeutic Fasting and Vitamin D Levels: A New Dimension in Type 2 Diabetes Mellitus Prevention and Management—A Brief Report.** Journal of Health and Allied Sciences NU. 2024 Jan 22. https://www.thieme-connect.com/products/ejournals/html/10.1055/s-0044-1778717

Saeed M, Ali M, Zehra T, Zaidi SA, Tariq R. **Intermittent fasting: a user-friendly method for type 2 diabetes mellitus.** Cureus. 2021 Nov;13(11). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8653959/

Schauer PR, Burguera B, Ikramuddin S, Cottam D, Gourash W, Hamad G, Eid GM, Mattar S, Ramanathan R, Barinas-Mitchel E, Rao RH. **Effect of laparoscopic Roux-en Y gastric bypass on type 2 diabetes mellitus.** Annals of surgery. 2003 Oct 1;238(4):467-85. https://journals.lww.com/annalsofsurgery/abstract/2003/10000/effect_of_laparoscopic_roux_en_y_gastric_bypass_on.3.aspx

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