

## Nutrition: Hypertension - Part 3

Hey, everyone, time for another case study, this one on high blood pressure.

J.B. is a 37-year-old male who's 5'8" and weighs 220 pounds. He suffered from a few health conditions, including being overweight, hypertension, high blood sugar, and high cortisol levels. He'd previously had success losing weight on a low-carb approach, got down to about 165, but he had fallen off the wagon over the past several months and gone back up to 220 pounds. His blood pressure was 140 over 90, his blood sugar regularly went over 140 milligrams per deciliter an hour after eating, and his fasting glucose on his latest lab tests was 97, so he definitely had impaired glucose tolerance, and dysglycemia.

After talking with J.B., he told me his main goals were improving his blood sugar levels as well as getting his weight and blood pressure under control. When he came to see me, he had just restarted on a very-low-carbohydrate diet, less than 10 percent of total calories. I recommended he continue this, as he'd previously had success losing weight with that approach. However, we did include a 30-gram carbohydrate snack after his workouts, as he had just introduced more intense weight lifting to his regimen and already had high cortisol levels. He monitored his blood sugar at home with a glucometer and kept records of his fasting glucose, as well as his post-meal glucose.

I encouraged J.B. to implement a mind-body activity program like mindfulness-based stress reduction or progressive relaxation, which he did a pretty good job of, not every day but a few times a week. I also suggested that he get at least eight hours of sleep per night, which was up from about six that he was averaging when he came to see me, and though he didn't get eight hours every night, he got a minimum of seven on all nights, and on some nights he did get eight hours of sleep.

I also suggested the following supplements: Prescript-Assist soil-based organism probiotic; and Galactomune prebiotic because of the connection between gut health and metabolic function; Metabolic Synergy and GlucoSupreme are two supplements from Designs for Health that are great for blood sugar issues; CoQ10 has been shown to lower blood pressure; and HPA Balance is a blend of nutrients that reduce cortisol levels. So he took all of these.

After a couple months on this protocol, J.B.'s glucose levels had improved significantly. They had dropped down below 90 milligrams per deciliter, and then in terms of his post-meal blood sugar, that dropped to 110 to 120 one hour after meals and had returned to baseline about two hours after meals. Within six months, his weight was down to 190, so wasn't as low as it had been before, and his hypertension had normalized. J.B. still felt like he wanted to lose a little bit more weight, particularly around the midsection, and that can be the most recalcitrant area in terms of weight loss, especially when cortisol levels were high, so we still had some work to do on the cortisol and HPA axis stuff. He still needed some improvement with sleep and with stress management, stress reduction, and that's where we continued to go from here.