



The Cortisol-GLP-1 Loop: Why Stress Blocks Weight Loss and How to Break It Naturally

By Dr. Melissa Bennett, ND

On a recent Xooma Health Education call with Ken Marsh, we talked about a topic that's becoming increasingly important today: **metabolic health and weight management**.

Before getting into the science, I shared something light. I had shared a funny image on my Instagram page, [theoliveleaf natural health](#). It was one of those cute cartoon bear pictures that keep popping up in my feed (my algorithm must think I'm about five years old!). The bears are always hugging, being sweet, and feeding each other tasty food—and they're usually chubby.



Image Source: Instagram

As a naturopathic doctor, I can't help but laugh. While most people just see something adorable, I see those little cartoon bears as having unhealthy eating habits and heading toward metabolic syndrome—things like high blood pressure, high blood sugar, and high triglycerides.

This subject is something many people are hearing about every day now. If you have watched the news, scrolled through social media, or talked with friends lately, you have probably noticed how many people are using the newer GLP-1 medications for weight loss. These drugs are everywhere. They are not going away. It has become a *trillion-dollar industry*.

I have patients who have done remarkably well with these medications. One patient lost more than 80 pounds. This is lifesaving, especially if they are battling with diabetes or a heart condition. When someone has struggled with weight for years and finally begins to see change, that can be life changing. That kind of transformation gives people hope, and hope matters.

As a Naturopath, my role is not to tell someone whether they should or should not take medication. That is not my lane. My role is to ask deeper questions: *Why did the weight gain happen in the first place? What is happening upstream in the body that is driving it?*



When we look at the big picture, obesity did not slowly creep up over the decades. **It exploded**. In the 1970's, obesity affected a relatively small percentage of adults. If you look at photos from that era, many people appear lean and physically active. The CDC estimates that today, roughly **73 percent of U.S. adults are classified as overweight or obese**. This statistic did not happen because everyone suddenly lost willpower.

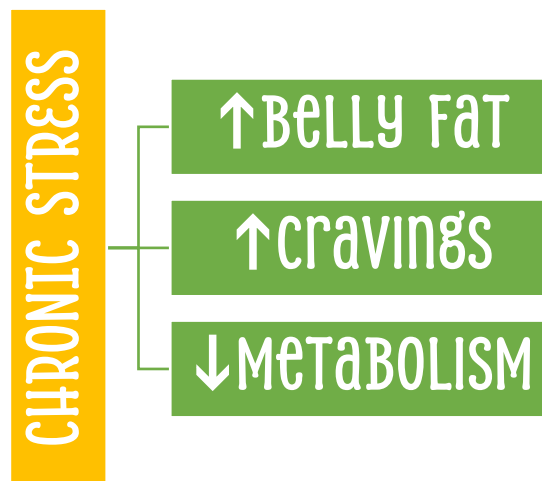
Several major shifts have taken place in our environment and lifestyle. Our food supply changed dramatically. Highly processed foods became the norm, and many of these foods are packed with refined sugars, refined seed oils and ingredients that spike blood sugar and insulin while increasing inflammation.

At the same time, our daily activity levels have dropped. Many people spend long hours sitting in front of screens. Sleep has become disrupted for many individuals, and we are exposed to more environmental chemicals that can interfere with our hormones.

COVID-19 also influenced obesity because there was reduced physical activity and changes in eating habits. Food delivery surged dramatically during the pandemic, with some services reporting increases of over 200%. That's so remarkable! And it has not stopped -- we are still ordering online 5 x more in 2025 than we were pre-pandemic (US online grocery alone exceeded \$95 billion and food delivery services exceeded \$150 billion globally).

Perhaps one of the biggest drivers of all was chronic stress.

Elevated stress hormones *promote* belly fat, *increase* cravings, and *slow* metabolism. Stress can also interfere with hormones that regulate appetite and fullness. Elevated cortisol and inflammation can impair incretin signaling, alter gut hormone secretion and disrupt the gut microbiome. So, the pandemic shifted our world not only by affecting our immune system but also affecting our metabolic health long term and over time our natural GLP-1 signaling began to decline.



The Hormonal Connection

This metabolic crisis has also accelerated the development of medications designed to help regulate appetite and blood sugar. This also led us to an important shift in how we understand weight gain. For decades the conversation has centered around calories. People were told to eat less and move more. While food intake and physical activity certainly matter - that explanation does not tell the whole story. This is where GLP-1 steps in to save the day! **But wait!** We need to look a little closer and move upstream to find out why GLP-1 is so important and where did it go? We all have GLP-1 naturally - but now we all seem to believe that we need a medication to replace GLP-1...something's a little out of balance.

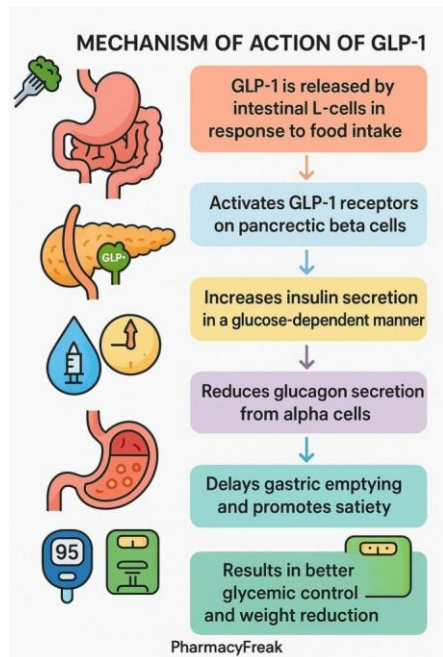
2 major players: GLP-1 and Cortisol

These two hormones have a powerful influence on metabolism and appetite regulation. A major piece of the obesity puzzle involves hormones. **One of the most important hormonal relationships** involved in metabolism is the interaction between **cortisol and GLP-1**. Cortisol is the body's primary stress hormone. In short bursts, cortisol can save your life. If you were running from a bear or trying to escape a dangerous situation, cortisol would help mobilize energy and sharpen your focus. The problem occurs when cortisol stays elevated in your body day after day.

Chronic stress, poor sleep, unstable blood sugar, and inflammation can keep cortisol levels high for long periods of time. When this happens, the body begins to behave as if it is under constant threat. Elevated cortisol can raise blood sugar, increase fat storage around the abdomen, slow digestion, disrupt sleep, suppress thyroid function, increase cravings, and even break down muscle tissue. In other words, the body begins to prioritize survival rather than efficient metabolism.

This is where GLP-1 comes into the conversation. *GLP-1* stands for *glucagon-like peptide-1*, but the name is less important than what it does. Think of GLP-1 as the body's natural fullness signal. It is one of the hormones that tells the brain when we have eaten enough. GLP-1 helps *slow* stomach emptying, *stabilize* blood sugar, *reduce* cravings, and *communicate* with appetite centers in the brain, particularly the hypothalamus. When GLP-1 signaling works well, people tend to feel satisfied after eating and have fewer cravings between meals.

How Stress Disrupts GLP-1



Pharmaceutical companies recognized the power of this natural hormone. If they could mimic the action of GLP-1, they could influence appetite and weight loss. That discovery led to medications that many people now recognize, and everyone seems to be jumping on the band wagon! These medications work by imitating GLP-1 and essentially forcing the body to experience a sense of fullness. For many individuals this can lead to significant weight loss.

However, it is important to understand that these medications do not address some of the underlying drivers of metabolic dysfunction and there are many potentially dangerous and unpleasant side effects for some individuals. The concerns that are already being discussed in the medical community include muscle loss, slower metabolism, nutrient deficiencies, gallbladder complications, stomach paralysis, and the possibility of regaining the weight once the medication is discontinued.

Perhaps the **most important point** is that these medications do not correct chronic stress physiology. They do not heal the gut. They do not address the **root cause** that may be disrupting the body's natural hormonal signals. This brings us to a fascinating part of science that many people have never heard of: **chronic stress and elevated cortisol can impair GLP-1 signaling and gut hormone balance**. When stress hormones remain elevated, digestion slows, inflammation in the intestinal lining increases, and the microbiome can become imbalanced.

When that happens, the cells in the gut that normally produce GLP-1 may not function optimally. In addition, cortisol can interfere with communication between the gut and the brain centers that regulate appetite. The result is that the body may struggle to sense fullness even when enough food has been consumed.

Understanding this connection helps explain why stress management and metabolic support are so important when addressing weight concerns. Fortunately, there are natural strategies that can help restore balance to this system and if you are taking one of the GLP-1 meds, you can use these recommendations to support your body as well.

Natural Ways to Support Metabolic Balance

It's XOOMA time:

Whether someone chooses to use a GLP-1 medication or pursue natural metabolic support, the most powerful long-term strategy is still addressing the underlying signals in the body that regulate hunger, stress, and metabolism.

One of the first steps involves hydration and mineral balance. Chronic stress can deplete essential minerals, particularly magnesium. Magnesium plays an important role in regulating the stress response and supporting healthy cortisol rhythms. When magnesium levels drop, cortisol can rise even higher, creating a cycle of stress and depletion. Magnesium is known as the “great relaxer” and it helps your body regulate the stress response. The good news is that with a product like X2O, you have access to the most absorbable form of magnesium and 70 other trace minerals. Supporting hydration and mineral intake can help interrupt that stress cycle. X2O helps provide hydration and mineral support that contribute to adrenal balance and overall metabolic stability.



The next step involves calming inflammation in the body. Chronic inflammation can interfere with hormone signaling, including the pathways that regulate appetite and blood sugar. Regular physical activity, maintaining a healthy weight, and managing stress through practices such as deep breathing or mindfulness and prayer, can also support a healthier metabolic environment.

Diet also plays a major role here. Emphasizing whole foods such as fruits, vegetables, legumes, healthy fats, and minimally processed grains can help support a healthier inflammatory response. Nutritional support may include omega-3 fatty acids, which are known to help balance inflammatory signaling and support cardiovascular and brain health. Xooma's **Omega 3/75** contains a superior formulation of omega-3 fatty acids - which should be taken daily - along with **LifeSource** multivitamin/multimineral supplement, and **Probiotix** - as a foundation to great health!



Speaking of Probiotix...**another important piece of the puzzle is gut health.** Many people are surprised to learn that GLP-1 is produced by specialized cells in the small intestine. These cells respond to nutrients and send signals to the brain that influence hunger and fullness. The gut and brain communicate constantly through what is known as the gut-brain axis. When the gut lining becomes inflamed or the microbiome becomes imbalanced, this communication system can become disrupted. Stress hormones such as cortisol can make this problem worse by slowing digestion and altering the microbial environment in the gut.

Supporting the microbiome and intestinal lining can help restore this communication pathway. Prebiotic nutrients and formulas like Xooma's **Xiome365** along with probiotic formulas help encourage a balanced microbial community, while gut repair nutrients help strengthen the intestinal barrier. When the gut environment improves, natural GLP-1 signaling can begin to function more effectively again. Xooma's Probiotix (which I was honored to provide feedback during its development) is an exclusive prebiotic and probiotic formula which supports ideal levels of good gut bacteria and diversity within your microbiome.



When cortisol levels calm, inflammation decreases, and the gut begins to heal, many people notice that their appetite and cravings become easier to manage. Their metabolism begins to work with them rather than against them. One of the most encouraging messages I like to share is that if weight loss has felt frustrating or

impossible, it does not necessarily mean a person lacks discipline or motivation. Often it simply means that the body's signaling systems have been disrupted by chronic stress and inflammation.

The human body is incredibly intelligent.

When we support it with proper nutrition, balanced minerals, a healthy gut environment, and strategies that calm the stress response, the body often begins to restore its own hormonal balance. In many cases, the problem is not a willpower problem. It is a signaling problem. The good news is that signaling can be repaired. And when it is, the body has an amazing ability to move back toward balance and health.

You do produce your own natural GLP-1. You just have to give it a little love and encouragement through proper care of your body. And since your body is fearfully and wonderfully made it can and will do what it was naturally designed to do!

At **The Olive Leaf, LLC**, we offer convenient neurotransmitter and cortisol testing kits that can be delivered directly to your home. If you're interested in learning more, please contact us at **404-997-9989**.

For additional support in your wellness journey, you're invited to listen to **The Olive and the Lamb** podcast (Honest Talk, Restorative Healing and Remarkable Miracles) on Spotify.

Yours In Health,

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Dr. Melissa Bennett is the owner of The Olive Leaf, LLC which is an integrated practice in Alpharetta, Georgia. She is also the Naturopathic Director of New Vitality Medical Institute's age-management program. In addition, she serves as Director of Naturopathy for Georgia Clinics with over 25 locations.

Melissa Bennett, ND, CTN, CNW is Certified as a Traditional Naturopath through the American Naturopathic Certification Board. She is board certified in nutritional wellness and has completed her accreditation as a health partner in predictive medicine through Emory University. She is also a member of the American Association of Christian Counselors through Liberty University.

Dr. Bennett is a Certified Natural Health Practitioner and is skilled in the Zollinger method of reflexology from the Heal Center. A devotee of the science of blood type, she is an IfHI Master – earning her designation under the guidance of Dr. Peter D'Adamo. Melissa focuses on total wellness and prevention. Her mission is to help people achieve optimal health and Xooma's products help her fulfill that mission.

Melissa personally recognizes that all aspects of health care serve a constructive purpose. In 2000 she was diagnosed with breast cancer on her 33rd birthday. She underwent two years of chemotherapy and 46 radiation treatments.

In part from this experience, Melissa is an advocate of integrated healthcare and knows what it feels like to be sick and also the blessing of being healthy. She believes true health is achieved when your Spiritual, Emotional and Physical states are in harmony. She also believes our Lord is the true Healer and He will direct you if you place your trust under His guidance.

*The statements in this publication have not been evaluated by the Food and Drug Administration and are not intended to replace the services of a qualified health professional, nor are they intended to diagnose, treat, cure or prevent any illness or disease.