

Gut Introduction

Hey, everyone,

In this unit we're going to cover how to diagnose and treat gastrointestinal dysfunction.

Gut problems are epidemic in the modern world. Irritable bowel syndrome, or IBS, affects up to 15 percent of the population. Sixty percent of U.S. adults experience the symptoms of GERD in a one-year period, and up to 30 percent experience them weekly. And Nexium, an acid-suppressing drug, generated \$6.3 billion in sales in 2010—an amount surpassed only by Lipitor, the most popular statin drug.

But gut dysfunction doesn't just affect the gut—it affects every other system of the body. We now know that an unhealthy gut may contribute to a wide range of diseases, including diabetes, obesity, rheumatoid arthritis, autism spectrum disorder, depression, and chronic fatigue syndrome. In a surprisingly high percentage of these cases, the patient may not have significant gut symptoms, so neither they nor their doctors ever suspect that gut dysfunction may be playing a role.

This is why we're starting the functional medicine track with the gut, and it's why every single patient that walks through my clinic door gets comprehensive testing for gut health—no matter what their chief complaints are.

In fact, as we'll discuss later, I've had patients—primarily men—who've come to me with high cholesterol as their only complaint. They feel fantastic, have no gut symptoms or symptoms of any kind. But when I test their gut, I find SIBO, or fungal overgrowth, or perhaps an H. pylori infection. And when I treat those issues, their cholesterol numbers go down.

This, of course, is what distinguishes functional medicine from conventional medicine. We are concerned with the underlying cause of disease, not just its symptoms and expression. And the crucial thing to understand is that gut dysfunction is an incredibly common underlying factor in most modern, chronic, inflammatory conditions.

I haven't collected exact statistics on this, but I'd estimate that about 70 to 80 percent of the patients I see test positive for at least one gut pathology. Now, this is not necessarily representative of the general population, because I'm treating sick people, and often people that haven't been able to find help anywhere else. But it does illustrate a simple fact: the majority of the patients you'll see will be suffering from some form of gut dysfunction, and you'll need to address this before they can fully recover their health.

In this unit, we're going to start with a very basic review of the physiology of the GI tract, and then discuss the role of the microbiome and gut barrier in more detail. Since this course is focused on practical application and case-based learning, I'm not going to re-create what you can learn in any

textbook on the gastrointestinal system. Instead, I'm just going to cover the information that I think you need to know to treat gut conditions effectively, and educate your patients so that they understand why you are doing what you're doing. For those that want a more thorough review of GI anatomy and physiology, I've included a recommendation in the supplementary material for this unit.

From there we'll move on to a discussion of the core gut pathologies that contribute to all gut conditions. These aren't the diagnostic labels used in the conventional paradigm, like "irritable bowel syndrome" or "gastroesophageal reflux disease," which merely describe the symptoms and don't offer any insight into what might be causing the problem in the first place. Instead, these are the underlying mechanisms—the physiological dysfunctions—that lead to the signs and symptoms which constitute IBS, GERD, and other GI conditions. As functional medicine clinicians, these pathologies are what we're concerned with because they are the underlying causes.

After discussing the pathologies, we'll move on to diagnosis. This will include symptom surveys and histories, as well as serum, urine, breath, and stool testing and elimination/provocation dietary protocols.

From diagnosis we'll continue to treatment. I will teach you specific treatment protocols—involving diet, supplements, and when necessary, medication—for the different pathologies we covered earlier in the unit, from SIBO to GERD to dysbiosis and fungal overgrowth.

We'll also discuss the role of fermented foods, fermentable fibers, probiotics, and prebiotics in restoring gut health, including advanced treatments like probiotic/prebiotic implants and fecal microbiota transplants. This is an evolving field of study with exciting new insights arising on an almost monthly basis.

Finally, we'll discuss the role of behavioral and lifestyle modification in gut health, from eating mindfully to managing stress to meal timing and frequency.

At the end of this unit, you should have a solid understanding of how to diagnose and treat the most common gut pathologies your patients will present with, which in turn will have a profound impact on their health and your effectiveness as a clinician.

Let's get started!