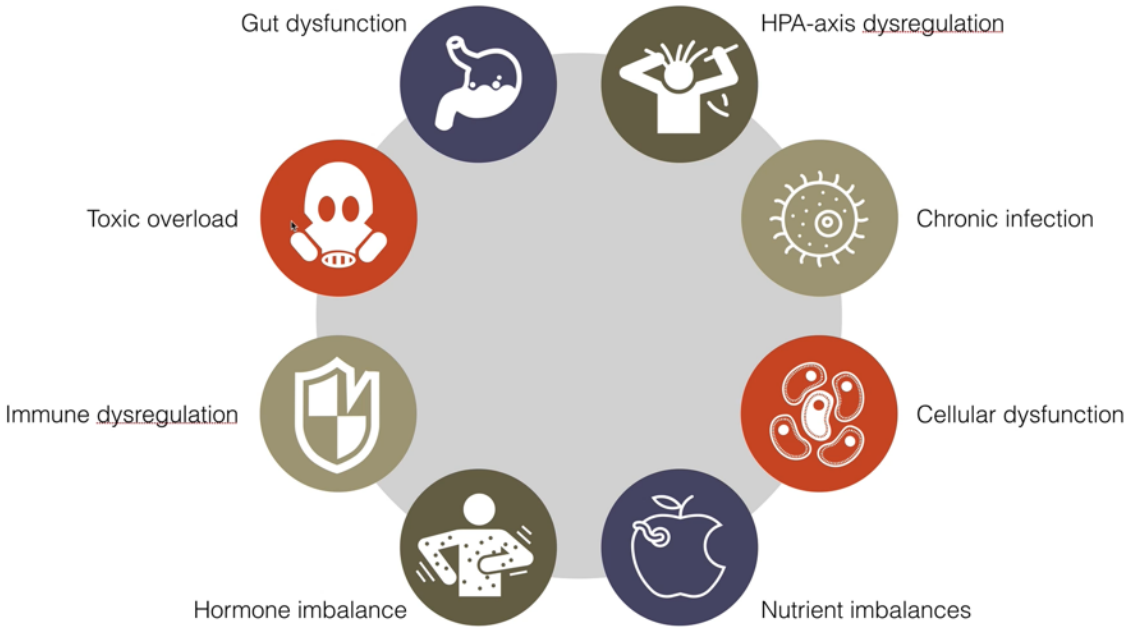
Introduction to Patient Care - Part One

Hey, everyone. In this presentation, we're going to talk about patient care from a functional medicine perspective.

One of the biggest challenges for clinicians that are new to functional medicine is how to effectively structure and layer a treatment. Most patients come to us with multiple symptoms, multiple pathologies, and multiple diseases and conditions, so how do you know where to start, and where do you go from there?

In the last unit, I presented the ADAPT Framework systems model of functional medicine, and in the broadest sense, that's the answer to this question. Since diet, lifestyle, and environment, plus the genome and epigenome and the interaction between all of those factors, is at the core of all disease, it should always be the starting place in your treatment. It makes no sense to address pathologies if you haven't addressed this core, and it's why diet and lifestyle are such a huge focus in the ADAPT Framework training.



But diet, lifestyle, and environment aren't always enough, and that's especially true if you treat people with chronic, complex, multi-systems illness. In these patients, you also have to address the pathologies that diet and lifestyle changes alone can't fix. In the ADAPT Framework, we examine

eight underlying pathologies that I believe are at the root of virtually all disease and symptoms, and they're listed here on this slide.

Let's take a look at each of them in more detail.

GI dysfunction is the first one. There are only two ways to get energy into the body: breathing and eating. It makes sense that gut issues are at the root of most diseases for this reason. It's, in fact, rare for me to see patients without some gut issues, even those patients who aren't complaining of gut symptoms. The pathologies we'll look at here include SIBO, small intestine bacterial overgrowth; dysbiosis or disrupted gut microbiome; gut infections like H. pylori and parasites; low stomach acid, hypochlorhydria; problems with enzyme and bile secretion; intestinal permeability; food intolerances; altered intestinal motility; and gut-brain axis dysfunction. As you can see, that's a lot and there's a lot that can potentially go wrong and cause problems. This is why I think that addressing gut issues could be the single most important task that you do with your patients. It's why it's included in the ADAPT Framework Level One and it's a major focus, and you'll definitely spend a lot of time doing this with your patients.

Nutrient imbalance is the second core pathology, and I say "imbalance" because I'm not just talking about deficiency. Excess of certain nutrients can be a problem as well, and we're seeing more and more of this as patients increasingly supplement. The most common deficiencies would be B12; iron; folate; vitamin D; magnesium; EPA and DHA, the long-chain omega-3 fats; zinc; and fat-soluble vitamins. The most common excesses would be iron; vitamin D; copper, although elevated copper is often a sign of inflammation rather than excess copper intake, as we'll see later; and omega-6 fats. The body needs 40 micronutrients to function properly, and either excess or suboptimal intake can contribute to chronic disease and shorten lifespan. Unfortunately, nutrient deficiency is widespread. More than half of Americans are deficient in zinc, calcium, magnesium, vitamin A, vitamin B6, and vitamin E, and in many cases, these aren't mild deficiencies. Over 50 percent of Americans consume less than half the RDA of several of these important micronutrients, so it's a big deal. It's something that's often neglected because we think, "Hey, we're living in the developed world. Nutrient deficiencies are more of a developing world thing," but that turns out to be wrong. We are well fed, but we're starving in many ways for these essential micronutrients.

HPA axis dysregulation, or hypothalamic-pituitary-adrenal axis dysregulation, is the third core pathology and the third thing that we're going to be focusing on in the ADAPT Framework training. This is often referred to by both clinicians and patients as "adrenal fatigue," but as we'll discuss, I think that's a bit of a misnomer. We'll go into a lot more detail about that later in the training. Along with gut issues and nutrient imbalances, HPA axis dysfunction is one of the most common pathologies that you'll see in your practice and one of the most important to address. Basically, the modern diet and lifestyle is a complete disaster for the HPA axis. It's a perfect storm, really. Not getting enough sleep, exposure to artificial light, excess consumption of refined carbohydrates and sugar, chronic unrelenting stress, lack of exercise, or too much exercise, in some cases, social isolation and alienation, and disconnection from nature all have been shown to dysregulate the HPA axis. This can lead to high cortisol; low cortisol, though that's less common

than typically believed; or changes in the diurnal production of cortisol, AKA the cortisol rhythm, and it can also lead to high or low DHEA and the DHEA metabolites. These changes can, in turn, contribute to a wide range of problems, including inflammation, hormone imbalance, intestinal permeability, autoimmune disease, etc., so this is another major thing to think about with your patients and something we're going to be spending a lot of time on.

Toxic burden is the next pathology. This refers to the wide range of toxins that we're exposed to in the food supply and water and in our environment in general. I think this is one of the most underrated areas of health, although it is getting more focus lately, and certainly one of the fastest growing causes for concern. Industry makes 6.5 trillion pounds of 9,000 different chemicals each year, which is 3.25 billion tons, enough to fill an ocean supertanker. We spew 7 billion pounds of 650-plus pollutants into the air, and a study by the Environmental Working Group found that the average person has 91 toxic chemicals in their body, some people as many as 165, including 76 known carcinogens, 94 known neurotoxins, and 79 that are known to cause birth defects. Our body does have built-in detoxification mechanisms that are quite effective typically, but they require proper nutrition and lifestyle and, therefore, can malfunction easily in a situation where someone isn't eating properly or they're burning the candle at both ends—all of the challenges with the modern diet and lifestyle that we just talked about. So when you get a situation where there's a high toxic burden, as there is in the modern world, and an impaired detox function, as there often is in our patients, that's the recipe for toxic burden or toxic overload. In clinical practice, some of the biggest problems that you'll see would be heavy metals, biotoxins like mold that you encounter from water-damaged buildings, pesticides, and fungicides.

The next core pathology would be **chronic infections**. These include infections that are recognized by conventional medicine, like H. pylori, which we're going to talk about in the gut unit, but also stealth infections like Lyme disease; other tick-borne illnesses like Babesia, Ehrlichia, Anaplasma, or Bartonella; intracellular infections like Mycoplasma or Chlamydophila pneumoniae; viral infections like Epstein-Barr and HHV-6, which we now know can become reactivated; and dental bacteria, which are a major risk factor for cardiovascular disease and mortality overall.

Chronic infections promote systemic inflammation and can alter nearly every aspect of physiological function. They can lead to serious and debilitating illness and even death in the case of Lyme disease and some of the infections. The problem is they're extremely difficult to diagnose and treat, and they're called stealth infections because they're experts at evading our immune defenses. If our immune system can't see them, then it won't produce antibodies, and right now most of the tests for these infections are limited to antibody screens. The problem there is it's very difficult to distinguish between past and present infection, so even if our body did produce antibodies, IgG antibodies would typically show up, but that doesn't tell you if the infection is current or past. The other issue is that many of these organisms are extremely resilient and resistant to treatment, and of course, the final issue is that there's a lot of uncertainty around these infections. It's a huge Pandora's box. It's really polarized. It's controversial. There's legal danger if you get involved in treating these conditions, so it's not something that we're including in the Level One training.

I forgot to mention with toxic burden we're not talking about that either. We're focusing on gut, HPA axis, and nutrient balance because those are the pathologies that you'll see most commonly and addressing them will give you the biggest bang for your buck. The remaining pathologies that we're going to talk about are important that we'll probably cover in future trainings, but chronic infection is, I would say, the most problematic and difficult of all of them.