

Introduction to Patient Care -Part Two

The next is **immune dysregulation**. This includes autoimmunity, underactive immune function, like tendency to get colds and flus a lot, and chronic systemic inflammation. Of course, this is also a huge and growing problem. I mentioned before that one in four women have autoimmune disease, and one in six men are expected to have an autoimmune disease in their lifetime. In many, if not most, cases, immune dysregulation is caused or contributed to by other pathologies, like nutrient imbalance, heavy metals, chronic infection, HPA axis dysfunction, etc., but once it's present, it may need to be addressed as a distinct pathology. For example, autoimmune diseases like Hashimoto's are triggered by gut infection, dysfunction, poor diet, etc., but fixing those things doesn't necessarily cure Hashimoto's. That patient may still need thyroid hormone replacement, for example, if they've lost the ability to produce thyroid hormone because the immune attack went on for a long time before you ever saw them. You may still need to focus on T regulatory cell support, reducing inflammation, etc. Likewise, inflammation that's caused by mold toxins initially may persist even after the patient has been removed from exposure to mold and even after the toxins have been removed because the body is just stuck in an inflammatory loop.

The next pathology is **cellular dysfunction**, and this category includes impaired cellular energy production, mitochondrial dysfunction, oxidative stress, and methylation problems. These are all fundamental systems in the body. They affect all aspects of physiological function, but they tend to manifest most often in mood and behavioral disorders like depression, anxiety, ADHD, or autism spectrum disorder, and then cognitive and neurological disorders like Parkinson's, Alzheimer's, etc., pain like fibromyalgia or joint pain or muscle pain or fatigue, and then metabolic disorders like weight gain, insulin or leptin resistance, and immune dysregulation. Methylation, of all these mechanisms, is certainly one of the most important. It has gotten a lot of attention recently, deservedly so, but there are a lot of misconceptions about methylation that we'll be talking about in future trainings. It affects mitochondrial function, protects against oxidative damage, and does also have an impact, probably, on cellular energy production. There are some pretty strong genetic influences that affect this category of disorders, but of course, environmental influences, as in most other cases, are key.

Finally, we'll talk about **hormone imbalance** as a pathological mechanism. This could include metabolic hormones like leptin and insulin, thyroid hormone, and sex hormones. Now, hormone imbalance is most often caused by other underlying pathologies, like diet and lifestyle or HPA axis dysfunction or gut dysfunction, but like immune dysregulation, once it's present, you may need to address it as a distinct pathology. Again using the example of thyroid hormone issues, if a patient has Hashimoto's and that causes destruction of thyroid tissue, that's where thyroid hormone is produced. The patient has already lost the tissue by the time they come to you. Even if you remove all the autoimmune triggers, you'll still probably need thyroid hormone. A similar thing with type 1 or type 1.5 diabetes—or even type 2, if it's really advanced. If the patient has had beta cell destruction, then they're still going to need insulin if it's pretty far advanced. But when you address



the autoimmune mechanisms, the good news is that you can usually reduce the amount of medication or hormone replacement in these cases that the patient will need by optimizing all of the various things that we've been talking about. Fixing hormones is definitely an important part of treatment, but it's usually one of the last things that I focus on because I prefer to address all of the other underlying mechanisms that contribute to hormone imbalance first and then focus on hormones specifically only after that's been accomplished.



Cellular dysfunction, toxic burden, hormone imbalance

Nutrient imbalance, gut, HPA axis

Diet, lifestyle & environment ("Exposome")

The eight pathologies that we just discussed are at the root of all diseases and their symptoms, from type 2 diabetes to IBS to Alzheimer's to cardiovascular disease, but with this in mind, how do you actually structure and layer the treatment, and where do you start? Even within these eight pathologies, there's a hierarchy of importance for addressing them, so the answer is based somewhat on the 80/20 rule. As I just explained a few slides back, the first things to address should be those that are most likely to produce the greatest results for the greatest number of people, so again, we always, always start with the exposome—diet, lifestyle, and environment. In some cases, if you get this right, you're done. Maybe 40 or even 50 percent of the people that walk through your door can be helped by this alone if you really nail it—and they really comply with your recommendations, of course! If you really nail the diet and lifestyle and environment,



including things like stress and sleep and home and personal care products and exposure to toxins and proper physical activity and meditation and stress management, that's going to take care of a lot of problems.

But for many, especially people who are dealing with a more complex chronic illness, you'll need to go to the next level up here, and that would be nutrient imbalance, gut, and HPA axis. Of course, this is what we are focusing on in the functional medicine track in the ADAPT Level One program because these pathologies are often at the root of or contribute strongly to other pathologies that we've already discussed, like hormone imbalance or cellular dysfunction or immune dysregulation, so of course, it makes sense to address these first for that reason. Second, even if there are other pathologies present, like infection or immune dysregulation or hormone imbalance, addressing nutrient balance, gut, and HPA axis can lead to a significant clinical improvement, which will help the patient stick with the treatment for long enough to see it through and feel better along the way. If your don't do that, if you don't help a patient to feel better and address their main complaints that they came to see you for, they're not going to stick around long enough for you to address all of the other necessary issues.

Just kind of as a back-of-the-envelope calculation, I would say that maybe addressing nutrients, gut, and HPA axis would take care of another 20 to 40 percent of patients, depending on your patient population. If you're like me and you're treating the sickest of the sick, it might be more like 20 to 30 percent. If you're treating a more general population, I would say that diet, lifestyle, environment, and then addressing nutrient balance, gut, and HPA axis is going to get 80 percent of people well.

For many clinicians, this is enough. If you master diet, lifestyle, and environment and then nutrient balance, gut, and HPA axis, you're going to help 80 percent of a general care population and help them dramatically. You're going to really change their lives and even possibly save their lives, and that's a far higher success rate than most people in a conventional practice could ever dream of. That's why this ADAPT Framework Level One training focuses primarily on this 80 percent. It's really where you get the biggest bang for your buck. The truth is some people may never want to go beyond this. Some clinicians may be content to spend their entire career focusing on this. That's a perfectly valid choice, and really you could spend your entire career focusing on these areas and never get bored because they're so vast and there's so much to learn and there are so many things to focus on and so many niche areas to specialize in and get interested in within this 80 percent that you could quite easily spend a lifetime and probably several lifetimes just mastering this stuff.

Once you start to step up on this pyramid and you look at cellular dysfunction, methylation and everything within that, toxic burden, and hormone balance and then chronic infection and immune dysregulation, you start to get into a level of complexity that is higher than with the things on the bottom of the pyramid.

Not everybody is interested in that, and not everybody wants to treat the 20 percent of the sickest patients that you're going to see. It's a challenging practice to have if you focus on that population, for a number of reasons. My intention with this training was to really provide—again, using the 80/20 rule, maybe 80 percent of clinicians will be entirely satisfied with just these two bottom



levels of the pyramid, and they'll be able to help 80 percent of their patients. That's the biggest need right now. Then those of you that really want to go further, there will probably be additional trainings in the future where I cover the more advanced topics and we can go into a lot more depth there.

After cellular dysfunction, toxin burden, and hormone balance have been looked at, I'll often go on to consider chronic infection and immune dysregulation if they're not already resolved from prior steps. Now, this is, of course, somewhat arbitrary and depends a lot on the patient presentation. If a patient comes in and during the case review/intake process I discover that they've had a recent tick bite and their symptoms started after that, well, you can bet that chronic infection is going to move up on the list in terms of things that we're going to look at. Likewise, if I am doing an intake and I see that a patient originally got sick after moving into a moldy apartment and they've been really sick ever since, well, then certainly we're going to look at biotoxin illness a lot sooner than we would have otherwise. As with all models, this is not meant to be taken literally and followed rigidly. It's just a framework for helping to understand how to structure and layer the treatment.

Of course, it depends on what you get interested in, too. If you're really fascinated and interested in chronic infection or your own personal health experience led you in that direction, then maybe chronic infection is much lower on this pyramid for you. For example, my co-director of CCFM, the California Center for Functional Medicine, our clinic, Dr. Sunjya Schweig, a close friend and codirector of the clinic, he focuses heavily on chronic infection because he encountered that in his own past in a family member and got really interested in it even as a student in medical school. When he graduated from medical school, he spent a lot of time learning about how to diagnose and treat those conditions, and that's still a main area of focus for him. So of course, this is all customizable based on your interests and your experience.

I think that's it. My interest, of course, with this training is helping the greatest number of people to recover their health, and this is the model that I've found to be the most effective so far. I hope it makes as much sense to you as it does to me and it will help you to guide and structure your treatments and make them as effective as they can possibly be. We'll be talking more about this model as we go through the training, and I encourage you to just keep it in mind as you are seeing patients and as you go through the training yourself. OK, that's it for now. See you next time.