



Advanced Clinical Focus: Detoxification and Biotransformation Transcript – Class 2 Part 4

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If I asked you to hold your breath for as long as you could, I bet you could only hold that for at least a couple minutes. And that's because we have a great mechanism in our body that tells us we're not getting the carbon dioxide out. Start breathing, because you're going to pass it soon. Our lungs are like opening the windows. We all know that situation where we're driving along the road and maybe we're going by some farm fields, and there's that smell of manure; they just fertilize their field. And what do we do? It's a beautiful summer's day, our windows are open, and we go and we roll up the windows, we close the windows. Here with the lungs we want to open the windows. The lungs also get rid of about one to two pounds of toxins per day, and they get rid of a lot of the end products of metabolism. For example, we have this exchange, we breathe in oxygen from the air, it goes into our lungs, we absorb it, it goes into the bloodstream, we transport it around to our cells to feed cellular respiration, and our cells use the oxygen and give up carbon dioxide. Carbon dioxide goes back into our bloodstream, goes into circulation, goes back to the lungs, and what do we do? We breathe out the carbon dioxide. We constantly have this exchange, we're breathing all throughout the day, all throughout the night, and we don't have to think about it. It can be managed by our involuntary nervous system, or autonomic nervous system. So whatever way we can get these lungs working better, we can really improve the release of toxins through the body.

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Now some of you might also realize that when we eat garlic, we can get bad breath, and that's not because it's in our stomach, but that's because a lot of the constituents in garlic actually get detoxified and released through our lungs, which is kind of cool. We can use that information to our advantage if someone has a lung infection or bronchitis, because we can get that garlic to the site to actually help with its disinfectant activity. How cool is that?

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So how can we improve detoxification of the lungs and help to get those toxins out? Well, the first one and most obvious one is exercise. With exercise, we increase our heart rate, we increase our breathing rate, we breathe deeper, we use more of our lung capacity, and we strengthen all the muscles around our lungs and get rid of toxins that way. So whatever activity increases heart rate is going to increase our breathing rate and how much we breathe, it's going to help us get rid of toxins. Now, sometimes I get clients that say, I can't exercise, I don't want to exercise, exercise has never really been a part of my life. And I ask them what fits your schedule better? Exercising one hour a day, or being dead 24 hours a day? Exercise and sometimes what I call movement is super important for health, and super important for detoxification, which a lot of people don't think about.



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Now, a couple other ways we can get rid of toxins and improve the function of our lungs is through deep breathing and pranayama breathing. So deep breathing is something as an activity I give to my clients on a regular basis, not just for the detoxification action, but also for its relaxation activity on the nervous system and on switching us from more of a sympathetic nervous system mode to a parasympathetic nervous system mode. Going from that fight or flight to the rest and digest is detoxifying in and of itself, which I'll talk about a little bit later on. In yoga, there are all of these great different breathing techniques called pranayama. One of my favourites is the breath of fire, where you really focus on expelling your breath, and that helps to get rid of a lot of toxins and a lot of stagnant air in your airway.

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Now as you can see from the picture, we actually don't use the full capacity of our lungs. We might kind of be in this range most of the day, but when we bring consciousness into our breathing, we can actually use a much larger part of the lung capacity, therefore having a much larger exchange of oxygen and carbon dioxide through the lungs. There's a really easy breathing ratio that you can follow where you inhale for a ratio of one, you hold that breath for a ratio of four, and you release that breath for a ratio of two. So in this example, you inhale for about five seconds, you hold for about 20 seconds, and then you release for about 10 seconds. And when we're releasing a lot longer than we're inhaling, this sends a message to our nervous system that says everything's alright, and it switches us from this go-go-go sympathetic nervous system mode, to more of a parasympathetic nervous system mode, and it helps us to get into a state of relaxation. Breathing is really cool, because typically, our breath can be controlled by our involuntary nervous system or autonomic nervous system, which kind of sounds like automatic and that's because we don't have to think about it. I go to sleep at night, I'm still breathing when I wake up in the morning, yet, I'm not doing it consciously. But the cool thing about the breath is that I can actually access it consciously as well. It's sort of on the fence; you can be unconscious about your breath, not think about it, or you can be conscious. So it allows this interface between your voluntary and involuntary systems, and thus, you can actually tap into that nervous system and help to switch it from a sympathetic mode to a parasympathetic mode, which is our rest and digest mode.

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So I love breathing, for helping with detoxification, but also for helping to influence our physiology, through mental activity and through directing the way our body is moving as well. So our lungs are critical for getting rid of those toxins. Deep breathing and exercise helps to open the windows helps to get our lungs working much better.