

Today I wanted to continue with that theme and talk about one particular section of the book *Hungry for More*, stories in science to inspire weight loss from the inside out, and we're going to talk about hungry for movement.

As I describe in this chapter, my fictitious patient Mitch has experienced a hunger for movement in terms of his recent injury. So Mitch was a middle-age gentlemen, high-performing executive who had always lived a very active lifestyle. Mitch had played college football, he was a wrestler, and as an adult, he had been active in a regular running practice this for Mitch was a way not only to exercise and maintain a healthy body weight, but it was also a way for him to maintain for no lack of a better word, his sanity, he used exercise as a meditative process. Although that was not known to him at the time, when Mitch came to see me he had recently suffered an injury to his knee that precluded him from continuing his usual regimen. He really believed that this loss of activity or exercise was what was making him gain weight. That very well may be true, of course, exercise is a huge predictor of weight maintenance. However, in talking to Mitch, what we really determined was what he was experiencing was a spiritual loss. Mitch described that he'd become increasingly angry, angry in the workplace, angry with his employees, he was increasing, losing his temper with his wife and his kids. This was a follow-up that was happening kind of simultaneously as he was gaining weight, and perceivably, soothing through food, alcohol, and other means. So I often say this is something that I frequently say or a quote that I frequently recycle on Instagram at Dr. Adrienne Youdim, which is, "I wish that exercise and weight loss could get a divorce."

1. The Benefits of Physical Activity

a. Predictor of Physical Wellbeing

The benefits of regular movement are so much more important than just weight loss, they far surpass weight loss alone. For starters, exercise, of course, is a huge predictor of physical wellbeing and health studies showed that as little as seven minutes of physical activity a day can predict longevity. So let me repeat that people who exercise at a threshold or move at a threshold of seven minutes per day lived longer than individuals who did not. So that just goes to show you how little it takes and how powerful the impact is of exercise, that it can prolong life with such a small commitment, but the benefits of physical activity affects essentially every organ, every body system.

b. Benefits to your Health

And so we know people who engage in routine activity have a reduced risk of cardiovascular disease and risk factors for cardiovascular disease, which include hypertension, type two diabetes, dyslipidemia, it reduces like I said systolic and diastolic blood pressure. People who engage in routine physical activity, are also less likely to suffer from cancers. Many of the common cancers including breast and colon cancer, people who exercise regularly are less likely to suffer dementia, including a lower incidence of Alzheimer's disease. And of course, regular physical activity also results in improvements in mood and a reduced

incidence of depression and anxiety. So again, the benefits to your health, far surpass anything else.

2. Important Aspects of Physical Activity.

a. Builds Tolerance for Psychological Stress

When I talk about the spiritual loss that Mitch experienced and that being the link to which weight gain occurred, there is a lot of information about that as well. So for example, studies show that significant or vigorous physical activity, so significant exertion, or vigorous physical activity, this is the kind of exercise that raises your heart rate, the kind that makes you huff and puff and sweat. The kind of activity that sometimes we kind of shy away from that intense activity in which you are stressing your body actually builds tolerance for psychological stress. So people who are able to adapt to that physical stress, again, are better capable of adapting to psychological stress. In fact, this is what I saw in my patient, Mitch, that his inability to exert his body in that way, made him less able to tolerate the psychological stresses that he experienced in his day-to-day life. This was playing out in his relationships with his family and in his relationships with work. So this is one of the really important aspects of physical activity. What I would say is, you should not be afraid to lean into that discomfort, sometimes we are afraid of experiencing that discomfort. Of course, if people have chronic medical conditions, if you're older, if you have heart disease or any medical condition, I don't recommend you exerting yourself without the consultation and approval of your physician. But if you are young, healthy, and you engage in an activity regimen that is difficult, don't be afraid.

b. Presence for Mindfulness

The second aspect of this is that exercise really provides an opportunity for presence for mindfulness. So when you are engaging in significant activity, weightlifting, for example, or running, or something that is really an embodied practice, even yoga, Pilates, where you're really thinking or in your body, you are not in fact, thinking. So it is a time in which you're able to literally take the attention and focus out of your mind and into the body. And when you think about it, it is said that humans experience 60 to 70,000 thoughts a day, just the thought of that is exhausting. Moreover, 70% of those thoughts are negative, negative thoughts. So exercise offers an opportunity for despite it offers an opportunity for you to literally come out of your head to stop the churning of the wheels, the ruminations, the brooding that we all experience as humans, and truly to be in the body.

c. Finding an Alternative to your Dopamine Hit

The additional benefits of physical activity is finding an alternative to your dopamine hit. So we know there are lots of things in life that give us that dopamine hit that pleasure signal, the neurotransmitter that signals not only

pleasure at the level of the brain, but also is involved in habit formation and seeking out habitual behaviors. So we know that harmful things like alcohol and cigarettes will cause a dopamine hit. We also know that highly palatable foods like high-fat foods, sugary foods, will cause a dopamine hit, that not only is a temporary, and temporary is a key word here, but a temporary feeling of pleasure. But it also creates that drive to seek that pleasure again and again and again. So it is involved in that habitual habit formation. So what exercise does is it offers an alternative, it offers an alternative when we are seeking to soothe when we are seeking pleasure, particularly in a time of distress. An alternative to a dopamine hit, that is not harmful to the body, but is actually helpful. Addition to that, we all know that exercise results endorphin release, and those feel-good hormones that affect our mood and is one way in which exercise is associated with a lifting up of the mood, as well as in reduction of anxiety. Depression as I discussed.

d. Cognitive Benefits

So, again, many cognitive, or perhaps I haven't spoken of the cognitive benefits yet, so many emotional and physical benefits of physical activity. And of course, there are cognitive benefits as well. We know that people who are engaged in regular physical activity, actually have better focus in the workplace, are more task-oriented, and have better focus in their tasks. There are many studies that have looked at exercise in students, for example, and have shown that children or students who are physically active, are much more likely to perform better in school. There have also been studies in which they've taken groups of students, divided them into two separate groups or cohorts, and tested them. One group was then subsequently sent out to exercise. The other cohort was allowed to just kind of hang out in leisure. Both groups were retested. They found that the group that was sent out to exercise invariably performs better on their tests, than the groups that were engaged in leisure, so there is a clear link between exercise and cognition.

So let's talk a little bit about the practicality of it. Because, of course, we all know that exercise is good for us, we all know that we should exercise. And even if you didn't know about the kind of spiritual benefits, so to speak, I'm sure most people know about the health benefits of exercise. So how do we make this doable?

1. **Do it right.**

How do we make it practical for the first tip is just do it right. Just do it, don't wait for the perfect time for the perfect opportunity. Remember, that study that showed only seven minutes of physical activity was sufficient to improve lifespan. Even if you can get your feet out the door for 10 minutes, you've already achieved a benefit.

2. Do Not be Afraid of the Exertion.

My second tip is to not be afraid of the exertion. Like I said before, if you have a condition, that precludes you from engaging in significant activity, or if you're older, by all means, you should know yourself and your body and get cleared by your physician. But the average person who does not have any health problems I find is still afraid, afraid of that discomfort, afraid of that exertion, what I want to offer is you lean in to the discomfort. You will lean in to the exertion knowing that that again, physical stress is only making you stronger, not only physically because of course your stamina will improve with time and you can tolerate more exercise more exertion, but your tolerance for psychological stress will also improve. That really is the spiritual benefit of physical activity.

One of the important aspects, practical aspects that I see is the absence of labeling, not labeling yourself. So oftentimes I'll have patients come in and they'll say, Oh, I was I was never athletic, or I'm not a runner, or I'm not flexible. They give themselves these labels of what they can or cannot do. Really, this labeling is far more important than what your body is truly capable of in this moment. Because again, we know that when we engage in activity, stamina increases, flexibility increases, endurance increases. But if we label ourselves as unable, we never give ourselves the opportunity to actually exceed our expectations.

There was a very interesting medical study that showed this. They took individuals and again, they divided them into two categories. They were all tested for lung capacity or functional capacity. Essentially, their lung volumes were tested and their capacity for exercise was evaluated. They then drew blood from these two groups of people. To the first group, they informed them that they had a fake gene that made them more athletic, again there is or was no athletic gene, but they told this first group of people that they determined on genetic analysis, that they had an athletic gene and to the other group, they informed them, they, in fact, lacked that athletic gene. So basically labeling them as, quote, an athletic. Then they put these two groups back into functional testing and tested their functional capacity. Lo and behold, they found that merely notifying that first group that they had a bogus fake gene that made them more athletic, did in fact, improve their functional capacity and lung function. Whereas the other group that was labeled as not athletic had a drop in our functional capacity. So that is super powerful. That is telling you that mindset is not only important in how you think about yourself, and what you perceive about yourself, actually has the ability to change your physiologic function. So don't label don't label yourself, allow yourself to explore and allow yourself to be surprised, surprised by the possibility of what you are capable of. With that, I want to give you a little bit of discussion around the different types of physical activity. I think this is important. Again, if you were a starter, or a newbie, just get started, it doesn't really matter what you do. You can walk, you can run, you can hike, you can jump up and down on the trampoline, you can blast Cyndi Lauper and dance around your house, it really doesn't matter. Just get moving.

But if you are already engaged in the regimen, then it is important to know the different types because different types of exercise offer different benefits. Also, it's good to not make your body too comfortable. When you do the same thing over and over again, your body essentially becomes efficient at that work. Efficiency means that it's no longer growing or improving. You want to surprise your body, you want to mix it up. You also want to do different types of activity because again, the different types have different benefits.

1. Cardiovascular Type Training

The first kind of activity is your endurance or your cardiovascular type training. This is the exercise that invariably increases your heart rate. I mean, they all can but activity like running, jumping, swimming, cardiovascular type exercise, that improves your heart function, your lung function, improves your circulatory system and improve stamina in that way.

2. Strength Training

The second type of activity is strength training. This kind of exercise is specifically geared towards strengthening your muscles. Muscle strength is really important for prevention. The stronger your muscles are, the less likely you are to suffer injury when you are exercising, strength training actually has been associated with reduced falls and bone breakage in older individuals, because again, your muscles your skeletal muscles are strengthening or supporting your skeletal structure. But it also strengthens bone density. It does that in two ways. Strength training not only strengthens muscles, but also bone density and in that was very important to prevent bone breakage, as you age and as preventive for osteoporosis. Strength training includes things like weights, resistance bands, even using your body weight. Some types of yoga and pilates are also while they offer other types of training to your body. They offer strength training,

3. Balance and Flexibility

The next group is balance and flexibility and they are different but I like to kind of lump these in the same category. These exercises also help reduce falls, they help range of motion, they help strengthen core muscles, those smaller muscles that are around the spine and in the body and have benefits also in increasing your overall metabolism and your calorie you know burning function so to speak, which is essentially what your resting metabolism is. Because in engaging those smaller muscles, you are able to build that muscle set.

So, again, the take-home message is that if you aren't active, just get active. Don't let these categories intimidate you or keep you from starting know that the body is so forgiving that even small amounts of activity are really helpful.

Remember that regular physical activity will result in a reduction of numerous, numerous physical and mental health conditions and will prolong life. Know also that there are cognitive benefits so will help your productivity in the workplace as well as you know, test-taking skills for students and for people who are still growing and expanding. Remember that you are capable of more than what you think you are. Stop labeling. Stop labeling yourself because that limiting belief is really limiting what you can do. Then finally, to manage your expectations, don't expect too much too quick. Know that your body will adapt as you engage in this activity regularly as your tolerance, your endurance, and your stamina improves.

I hope that this was a good overall review for you for engaging in movement and really helping you understand not only the physical aspects of physical activity but also the emotional and the spiritual aspects of physical activity.