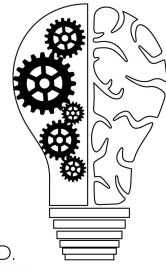


Episode 018: Prescribing Strength Training for Depression

David Puder, M.D., Trent Jones

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**PSYCHIATRY &
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There are no conflicts of interest for this episode.

My guest for the podcast was Trent Jones, a [Starting Strength](#) athlete. I interviewed him about his story, how he discovered strength training, and how it changed his emotional state.

We will cover how strength training can decrease depression and help people deal with anger and develop confidence and assertiveness. Then we will give you resources to know how you can get started on your own, simple strength training program.

Trent was a football player in middle and high school. He was always a self-professed “smaller guy,” hovering around 150 pounds, even though he was athletic. During those formative years, he struggled with depression and outbursts of anger, causing his therapist to put him on antidepressants.

Once he graduated high school, he wasn’t participating in sports any longer, even though he still exercised. During college, he struggled with prolonged bouts of major depression. He began to lose his confidence in his abilities to perform everyday tasks, and because of that, he doubted his self worth. He detached from friends and wasn’t enjoying life.

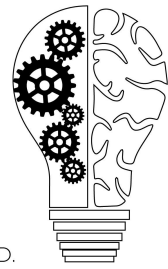
As a natural people pleaser, Trent struggled with being assertive in his interactions, appearing kind and calm. He dealt with angry outbursts when he was alone. After college, his job was stressful, and his people-pleasing personality, mixed with his bosses’ lack of boundaries, caused Trent to feel overwhelmed. He’d work all day, then go home and stew in frustration in the evenings, losing sleep, and even throwing plates during bouts of anger.

Work was difficult and his depression came in waves. Trent decided he wanted to find a hobby and revisit his athletic past. He’d always loved strength training because of his experience with football. He decided to get into weight lifting, so he searched for a

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simple way to build muscle mass. In his exercise since high school, Trent had only focused on cardio and lifting random weights for random sets and repetitions.



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On the left Trent Jones prior to systematic strength training. On the right Trent Jones lifts 411 lbs during a "Starting Strength" meet.

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When he started weight lifting with a purpose, using the Starting Strength model, he started to see changes in his mood and physical strength. He eventually put on 50 pounds of muscle as he upped his training regimen and fine-tuned his eating habits. He noticed he started to feel more assertive in his relationships and work. He gained confidence and his depression symptoms declined.

He'd found out a secret that most people don't know: **strength training can be an effective treatment for depression.**

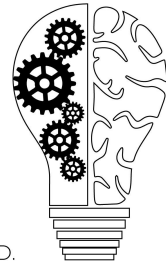
The Research Behind Strength Training and Decreased Depression

Trent's transformation—both physical and emotional, is a great tool for taking control of total health. But, it's one that most people don't think about when they think about classic depression.

Most patients that come to me don't expect me to recommend a weight lifting regimen when they step into my office for psychotherapy and medication management. Of course, medicine and talk therapy are incredibly helpful. Strength training is just one of the tools in my toolbelt for depression, but it's a very powerful additive force for long-term treatment success.

In a recent large meta analysis showed the overall effect size (the amount of change the strength training group had compared to the control groups) for strength training was 0.66 (95% CI, 0.48-0.83; $P < .001$). Learning to understand effect size can be very important so I will mention a few things here to make sense of this.

Effect size is the difference between treatment and control group, expressed in standard deviation units, where an effect size of 1 means that the treatment arm moved one standard deviation from the control group. An effect size of 0.8 is a large effect, 0.5 is a moderate effect, and 0.2 is a small effect (Cohen, 1998). It compares two treatments, and looks at how far they move away from each other. The larger the effect size, the better the treatment. As a point of reference, a different meta-analysis of 37 psychotherapy studies looking at the treatment of depression found an effect size of 0.73 (Robinson, 1990). Therefore recent meta analysis for strength training was very impressive!



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In this met analysis, they also found that total volume of resistance training, participant health status, and previous strength status didn't really matter. However, sometimes when a group of studies are looked at simultaneously they miss the nuance of well designed individual studies. One study in particular showed the more strength gained the larger reduction in depression.

Translation?

It didn't matter how out of shape people were when they started, it only mattered that they started the strength training program—it still helped depression. This is something that as a doctor, I'd rarely say, but: You don't have to comply fully in order to reap benefits. You don't have to be an expert lifter to gain benefits.

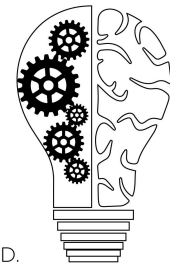
If you can train even two days a week, you will still get benefits from that.

However, the people who gained the most strength had a correlated decrease in depressive symptoms. Basically, the more strength you gain, the more effective it is for treating depression.

The other key is to notice what Trent noticed: exercise and even unregimented, random training isn't as effective as a systematic lifting program.

On another level, **strength training helps patients with developing assertiveness**, which increases confidence and happiness. To understand this, we have to talk about anger. We often think anger is a bad feeling, a wrong emotion. But it's not. Anger has an adaptive function. The primal purpose of anger is so we can protect ourselves, loved ones and overcome obstacles (like being disconnected with a loved one). When we feel anger, hormones like adrenaline, result in courage to fight the bear that's trying to attack us. Or to pay attention to our spouse so we can remove the emotional obstacle between us and feel close to them.

When we feel angry, it may be a message that someone has violated our space, talents or abilities and we need to therefore allow the anger to empower us to put up a boundary. Most often, in our childhoods, demonstrating anger was not acceptable behavior. As we age, we keep that messaging and suppress our anger inwardly, leading to a lack of assertiveness. That lack of assertiveness then can lead to further issues like less respect for ourselves in relationships, which develops from being constantly getting



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“run over.” Then we tend to misplace our anger—like how Trent wouldn’t confront his boss for overstepping his boundaries, but would go home and throw plates to act out his aggression.

When people start strength training, they are, quite literally, adding stress to their body. But, with a systematic training program, the stress is sequential and leads to adaptation. When we do something difficult, we practice courage. Overtime we not only grow strong, but also more competent to meet the huge challenges that life throws our way.

Like Trent, I used to be an athlete in college. When I started medical school, and on into residency, I exercised, but didn’t strength train the way I do now. It has changed my life.

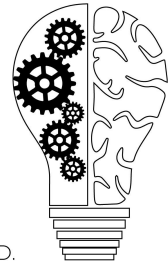
As a psychiatrist, I write prescriptions for medicines for severe mental illness. I prescribe talk therapy to almost everyone as part of the process of overcoming. And I also write a prescription for strength training. In my therapy practice, I’ve personally seen the results of the training on decreasing depression in my patients—it absolutely helps.

The Link Between Empathy and Self-Care

Some of my patients who are incredibly empathic also struggle with depression. They are so empathic, so giving, that their schedules often reflect this—they don’t make time for themselves.

Strength training can help, as it did with Trent, to develop assertiveness and even deal with chronic, unresolved anger. Self care through strength training can aid in decreasing depression.

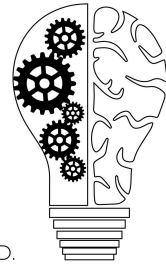
Empaths naturally lean towards being professional therapists, or are live-giving people in their myriad of relationships. As professional caretakers, it’s important to make time in our schedules for ourselves to do things like strength training.



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Where to Start and How to Succeed?

1. The first key is just to begin. Remember that perfection isn't important. You don't have to jump in to a five day a week routine. Start simple and build the habit of two days a week of training if you're just beginning.
2. Start with watching youtube videos (see below) of proper technique, and I highly recommend to hire a coach ([online](#) or [in person](#)) to help you for the first few months to show you how to properly lift the weight so you do not hurt yourself. If you buy one book, buy [this one](#). If you want a free place to post questions and videos for technique critique join this [facebook group](#) (be warned people will be concise and to the point which may come out blunt).
3. Start by mastering these multi-muscle movements with a barbell:
 1. Squat
 2. Bench Press
 3. Press
 4. Deadlift
4. Do 3 sets of five repetitions each, with increasing weights with each workout. The exercise and sets and reps don't change for the first 3-6 months of doing this. Only the weights change. Add five pounds each new day you work out.
5. Repeat every time you go to the gym. To start, go to the gym optimally three days a week.

Youtube Links:

[Lower Bar Squat](#)

[Dead Lifts](#)

[Bench Press](#)

[Press](#)

Gordon, B. R., McDowell, C. P., Hallgren, M., Meyer, J. D., Lyons, M., & Herring, M. P. (2018). Association of Efficacy of Resistance Exercise Training With Depressive Symptoms: Meta-analysis and Meta-regression Analysis of Randomized Clinical Trials. *JAMA Psychiatry*.