



## **What We Can Do to Change the Chronic Pain Paradigm**

An interview with Marc Moisi, M.D.  
on Back in Control Radio with Dr. David Hanscom

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Tom: Hi, David, I understand we have Dr. Marc Moisi back in the studio today to share more of his insights into the mega issue of *chronic pain* with us.

David: Thanks Tom, I appreciate you hosting the show. My guest today is Marc Moisi who was with us last week. He is the Chief Neurosurgeon at Detroit Receiving Hospital, and is a special guest for me because I know him extremely well. He is one of my former Fellows who started his Fellowship around 2013-2014. He's one of the most competent physicians I know in both non-surgical and surgical approaches to patient care. It has been a remarkable experience to watch Marc evolve as a surgeon and teacher of young physicians.

Right now, he's a hospital physician teaching 14 residents a year at Detroit Receiving Hospital. He became Chief of Neurosurgery there a little less than two years after starting. He does a great job, and I'd like to welcome Marc to our show.

Marc: Thank you David. I really appreciate you having me on the show again.

David: What I'd like to talk about is some of the evolution both you and I have experienced in our thinking about surgery and alternatives to surgery when we know that surgery is NOT the answer for a specific patient based on a lot of data. As you know, my evolution in thinking about the doctor's role in helping patients who suffer from chronic pain lasted 15 solid years, and I've labeled those years "burnout," and so I have mixed feelings about that process. But I will say one of the benefits of the misery was that I did learn about chronic pain, and I'm able to share that empathy with sufferers around the world looking for help and answers.

I also learned about surgical performance, and how you can apply athletic performance principles to surgery—and Marc, you were one of the earlier adopters of that mindset. If you could spend a little bit of time explaining *surgical medical training* as compared to what you experienced and learned being exposed to a more nurturing environment.

Marc: Absolutely. And this is a topic where I think hopefully there will be a *complete 180* in healthcare in the training of *all residents, not just surgical residents*. But as we grew up in medical school, once you decided to go into surgical sub-specialties, you were the ones who were considered to be the *tough* people, the ones that always wanted to *pursue*, to work the long hours and forget about having a family, forget about having a life—just go *no holds barred* working many, many hours a week.

And to a point you could understand that repetition does lead to excellence, but there are many ways of doing that. And the most important thing that your patient can ask for is for you to be healthy in order to provide them with the given care that they need and request. Now that being said, when you approach a surgical residency, when you're working those long hours and you're working towards perfection, sometimes you forget about your basic life needs like sleep, exercise, and eating. I remember when I was a sub-intern the *mantra was eat when you can, sleep when you can, go to the bathroom when you can*.

And as fun as that is for the first two months, that takes a big toll on your life, and I think the more you realize the humanistic approach both in the training as well as towards your patients, the better everyone will do in the long run.

David: There's a study out of Philadelphia where researchers developed The Jefferson Scale of Empathy (JSE) to measure empathy in physicians and other health professionals. This was given to students who applied for medical school. By the third year in medical school, ratings on the scale just plummeted because it's just long, hard hours, and you go into survival mode as opposed to enjoying the experience.

The other thing about medicine in general is that it is a very critical, perfectionistic culture, which on the surface seems like a good idea, but now they've shown in the business world that *people actually thrive better in a nurturing environment as opposed to a critical environment.*

In medicine there is a particularly critical environment in surgery, especially in neurosurgery and in spine surgery, so I'm assuming that was your experience in the few years before you came to our program?

Marc: Absolutely. The more critical, the better it seemed teachers felt about themselves, and instead of taking into consideration the outcomes, both of the patient *and* of the student, they were more fixated on the previous culture of how they were taught. *And I think if we could do a complete shift in our teaching of our residents, I think the outcomes of how they treat patients will just be a lot more superior.*

When you're taught for success rather than being taught for failure, people end up doing better, and what I mean is, as you said, we're all perfectionists. That's not just true for healthcare, that's true for hopefully most human beings. They want to get the best outcomes for whatever they're doing. And when you're a perfectionist, making a mistake takes a huge toll on you.

David: Right.

Marc: And that toll could be eliminated if instead of beating it into you that you made a mistake, you made a mistake, the reaction is, "Okay, you made a mistake, let's learn from that mistake and how to better yourself so you don't make that mistake in the future." That's a completely different dynamic than saying, "Hey, remember on January 13th, 2014 you did X, Y and Z and it led to this?"

We should be just saying, "Hey, let's let you learn from this moment on how to improve yourself." And it doesn't have to be just my mistake, it could be my teacher's mistake in saying, "I made this mistake in the past. How could I teach this to you so you don't make that mistake in the future, and to avoid making that mistake at all?"

David: Right. Of course, as you know most Fellows for the first six weeks that they trained with me actually did not like it very much, right? Remember those days Marc?

Marc: No, I don't. I kind of blocked those out.

David: I read a book called the *Talent Code*, by Malcolm Gladwell. The genius occurs after 10,000 of very deep repetition, and a guy by the name of Dan Coyle took that to the neuroscience world—that 10,000 hours of specific repetition creates genius. And after I read that book, I changed my training. I'd start from Day One treating Fellows coming into my program like they never held a knife before, and of course they were highly insulted.

But what happened is that after about six weeks we would know why we made every move, every time, in a certain direction, and I call it the *Safety Zone*. It amounts to demonstrating knowledge of safe utilization, knowing the anatomy, and making all the moves in a safe manner and with a light touch. By staying in the Safety Zone, the complication rate would drop down 80% easily. There's a bit of a mantra in surgery that complications happen. Well they don't just happen, they always happen for a reason, and Marc has been a strong component as one of the people who helped evolve this process in 2006.

My son and his best friend were being coached by my golf coach in performance coaching, and I learned what they were doing. I said, "Wait a second, surgery performance." Long story short, I hired David Delaney as my surgical performance coach, basically applying athletic performance principles to surgery, and I was coached very hard for about 18 months with a dramatic decrease in my complication rate, also a large increase in just my enjoyment of what I was doing. And as a surgeon, it starts from the very basics with every move every time without exception, and this completely changed the paradigm of how I did surgery.

Marc, do you want to describe that paradigm shift from your perspective as you came into my program?

Marc: It's when you're taught in a certain fashion, as we mentioned at the beginning of this talk, you just want to progress. You want to just say, "Hey, I've done XYZ in my past, I'm already prepared to move onto the next step," but to have someone pull back and say, "Hold on, start from the basics. You've got to learn how to crawl before you learn how to walk." So in order to be able to run that marathon and be able to complete a spine surgery, you need to start with the skin incision. And I was like, "Yeah, yeah, yeah, yeah, I know how to do that. Next step."

And as you're going through it, it is a little bit demeaning as you mentioned, but the whole point of me joining your program was to learn from you, and I had to put my full trust in you. And then looking back at those first six weeks, I realized there's truly a method for success in that. What's described in *The Talent Code*, we're looking at concert pianists. They said as they were learning to play any sort of sonata or any piece, if they made a mistake on the third note, they were starting all over again.

David: Right.

Marc: That's no different than surgery. You can't always start all over again, but that's why you need to start your moves from your first move. It is, in a way, a concert between two surgeons to complete a surgery. You should not be able to tell who's making one move. It should not be one person starts and another person finishes. It's an orchestra between their hands as they complete the operation.

David: Right. Could you describe the performance model briefly?

Marc: Sure. One of the greatest things about the program was that it did not end in the operating room. Surgery was not just the technical skills that you taught us. It was also a mental state. And as a Fellow there, we hired a performance coach. His name was David Delaney, he's a golf coach for the University of Women's golf team, and he helped them win national championships. And if we could bring it down to one formula, it would be the formula that you taught us from Day One which is *performance is skill minus interference*. And the more you brought yourself down to dissecting that formula, your skill was more equal to your performance, and that's what every surgeon wants.

David: Right. Well, what I finally found out myself is that the basic interferences were being anxious, frustrated, rushed, distracted or too complacent, and before I went through the process myself I didn't recognize any of those interferences. I just would simply watch moves and do them, and I couldn't figure out why I made mistakes here and there. In retrospect, I know really clearly why I made the mistakes, but becoming aware of the interference was the first step.

And the skills come with very specific repetitions of the right moves, and you heard the saying '*Perfect performances from perfect repetitions.*' How does that go Marc? You just can't do repetitions and expect to have a good outcome. You had to have good repetitions that are very detailed to come out with a very good performance, so the goal is consistency of performance.

And it turns out surgeons are in tremendous stress, and so a lot of interference is in surgery. So when you're anxious or frustrated as two examples of interferences, you just don't perform as well. But if you become a *wellness* interference and sort of drop your shoulders, take a deep breath, and then move forward in a beautiful manner, it really helps the consistency of your performance.

David: But also, it had a pretty big impact on your personal life too, right?

Marc: Absolutely. When you're happy and you want to be at work, your personal life is a lot more successful as well. If you're miserable when you go into work, you're going to be miserable when you leave work, and you're going to be miserable at home. So what kind of life is that to live? Everyone that you're surrounded by whether it's your family, your colleagues, your friends or even your patients could see a difference.

David: Right. They're possibly called mirror neurons. I mean if you're actually excited about seeing your next patient regardless of the condition, people respond. If you're happy, people around you respond, then you do the whole healing relationship that makes a

huge difference. In my experience, my personal identity included taking on an incredible amount of stress. That's why I became a major spine surgeon. But eventually, it broke me down.

I actually have much more stress in play now than when I actually broke. Can you briefly describe how you process stress now compared to before you came into my Fellowship program?

Marc: Absolutely. Well I would say before I came to the program, I don't think I actually processed stress. What I did was I had stress, I dealt with it, and then I moved on to my *next* stress. Now, I actually have an active way of processing it. I dissect it down to its tiniest fraction and try to figure out what the stress is that I feel.

For instance, a mantra that we've always gone through in surgery is *if you're feeling anxious that something isn't going right, stop, and figure out* what is causing you that anxiety and that stress? And the key to that is being able to recognize it before it blows up. For instance, if I can't see something when I'm operating, why can't I see? Is my microscope in the wrong direction? Are the retractors in the wrong place? Do I not have enough of a dissection?

So if you step back for a second, instead of being hyper-focused, you look at the big picture, you resolve that, your stress is gone. No different than anything else we could do in life.

David: A big factor in my own evolution in this whole process, and again I've gone through those same processes that Marc went through, is about being able to pass it along. *I decided to take an attitude of play to work with me*, which meant taking curiosity, gratitude, wonder and awareness to work, and it completely changed the way I enjoyed work.

Just making a choice to have a really good time at work made a huge, huge difference in my energy levels. I'll come out of the clinic absolutely energized by my patients and it just was good. One of the goals that my partners and I agreed on was to provide an environment for our Fellows and residents that was fun, and I think we succeeded at that pretty well. You describe the difference between your historic world of medical training being one in which you are pretty much criticized most of the time versus one in which you actually have a good energized feeling about your capacity to learn and are encouraged to exercise your curiosity.

David: So instead of the old paradigm of teaching them what *not* to do, we're always teaching them what *to* do.

Marc: I completely agree, and I think one of the differences I saw as being first a resident and then a fellow, was that when I was a resident, I couldn't wait for a day off. When I was a fellow, I couldn't wait to be at work because if you're having fun while learning, you're going back to your natural instincts of releasing those endorphins and actually enjoying

what you're doing. I actually felt like I didn't need vacation—work *was* a vacation because I was having so much fun.

Not to say that you shouldn't take time off and reserve that time for yourself, but if you're able to create an environment of fun your entire life, think about how much more enjoyable and how much more you'll learn.

David: I'm not sure if the listening audience understands how big a difference in training physicians we are talking about, but in medicine we tend to be a perfectionistic skill-critical culture. We criticize ourselves, we are criticized by our mentors, and we still somehow think that's how it's supposed to be, so it is a really huge paradigm shift from that to a nurturing environment for medical training.

What is fascinating from a purely physiological standpoint is that we know stress releases a lot of adrenaline and cortisol into the bloodstream which actually *decreases* the blood supply to the frontal lobe of your brain, and you don't think as well. But when you're relaxed and able just to be there, you're able to focus more easily. And so even from a physiological standpoint, it makes way more sense to just relax and have a good time. Plus, you're spending 60, 80 hours a week at a hospital, sometimes more. Why not enjoy it? I'm curious—how much success have you had in bringing some of these concepts into your program there in Detroit?

Marc: That's a great question, and one of the things that we're lucky about now is at least for neurosurgery, they're trying to *create programs for wellness and physician wellness*. I think we've seen too many disasters in our past. If you read the newspapers, you see physician burnout is at an all-time high, especially in the surgical sub-specialties, and physician suicide is a horrible problem. Working with you and another physician in Michigan, his name is Dr. Anthony Abolino, we've realized that physician burnout is not something to put aside. We need to really incorporate that in the teaching of our residents *before* they get to that point of no return.

Marc: Now for us, I really try to incorporate the same mantra that you had at Swedish for your Fellows for our residents. There's a difference between having fun and being serious, and getting the job done versus always feeling like you've got a target on your back, and not being able to actually enjoy your time. When I work with residents, I want them to have fun. I want them to understand the anatomy and be able to do the operation, but the way they get there is through a positive, enjoyable process rather than a critical process.

Now, criticism doesn't always have to be in a negative way. I remember the two of us were operating a week or two before I was going to graduate Fellowship, and you made a comment to me on a wrong move I made, and you said, "The minute I stopped criticizing is the minute I stop caring for you becoming a better physician."

One of the things that you taught me, and this is what I try to bring to my residents as well, *the one thing you taught me is when you're in that room even though one is more experienced than the other and one is teaching the other, you're both surgeons and you*

*both have experiences. And you, as your co-surgeon, I can see things that you don't and you could see things that I don't, and we should be able to coach each other throughout the process. It's no different than an athletic performance. Surgery is an athletic performance.*

We're the only athletic performance that doesn't look back at our last surgery or at our last performance critically, right? Sunday night, Monday morning, everyone is looking at the Sunday night video and saying, "You shouldn't have made that pass. Your foot is wrong. You should have made that block."

David: That's a good point.

Marc: How are we going to improve as surgeons to provide better care for our patients if we're not actually critically looking at ourselves or letting others critically look at us? So why should we coach each other or why shouldn't we have a coach?

David: Very good point and you're right. We're Golden State Warriors fans, and we're watching the NBA playoffs very carefully, and they obviously can lose badly in one game, and then all of a sudden they look at the game films, and make adjustments, and they can win or lose the next game. You're right. In professional sports, they're analyzing the films and moves all the time, and that isn't done that commonly in surgery, and I agree that's a good way to go.

Marc, thanks again. I really appreciate you taking the time to talk to us. I know you're incredibly busy. Again, I'm excited about Marc. Just two years ago, he landed a major job, and now he's got a whole career ahead of him to put these concepts into place. Marc won't admit this, but he's already had a major impact on healthcare in Detroit by setting a very high standard of surgical education, surgical performance, teaching, and having a good time.

Marc: Thank you very much for having me, and I couldn't have done this without your mentorship. Thank you.

Tom: Thank you David and Marc for a very insightful look inside the world of training residents and surgeons, and the stresses they have to endure. And I want to remind our listeners to be back next week for another episode of **Back in Control Radio with David Hanscom**. For more information, be sure to visit the website at [www.BackInControl.com](http://www.BackInControl.com).

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**Note:** The original transcript of this episode of Back in Control Radio with Dr. David Hanscom has been edited for readability