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## TALKS ABOUT AMIT: (ADVANCED MUSCLE INTEGRATION TECHNIQUE)

## QUESTIONS AND ANSWERS (Edited by Dr. Cerami for clarity)

**Question:** What exactly is Advanced Muscle Activation Technique?

**Answer:** It's a very elegant approach to the assessment, diagnosis and treatment of injury conditions that people deal with. We can assess every single muscle in the body for function and if a muscle is overloaded beyond its ability to handle stress, because of lack of conditioning or because a trauma is too severe, we can fix it.

When an injury occurs, if the integrity of that muscle is exceeded, the little nerve centers contained within the muscle shut the muscle down propioceptively. So, we find that if when muscles don't fire appropriately, then they don't absorb the shock efficiently and so there's more stress placed on the connective tissue in the joint. And so the joint becomes inflamed, and the longer you're inflamed, the more you restrict joint motion. A sort of cascade effect that occurs over time and then we treat pain with anti-inflammatories and we are basically asking the body's alarm system and protective mechanism to be quiet and this actually accelerates the breakdown process

**Question**: I guess the way that it seems to make sense to me, is that we almost form a wall or around an injured or strained or stressed area. But before we kind of go into what you do with the chronic injury, with an acute injury, you know, let's say someone's sprained or strained their ankle, they're listening to you talk about what happens on this central nervous system level when they do that, is there a way to ensure that central nervous system response doesn't happen in the way that you've described it or simply something that we're stuck with when we get injured.

**Answer:** I'll give you an example, on my website there's a video of John Stockton's ankle. It's a severe sprain that which is unusual. We went back in the locker room, we evaluated him, I treated couple of muscles that in his ankle and he went back out and played the first quarter, pain free. Now, the next day, it was purple from capillary hemorrhage that occurred due to the trauma. But standard medical care would say for a week, then start working the passive range of motion you increase the activity to work 4-6 weeks out of your back to normal function. So, when resettles those joints back in the position, then a little pain receptors that are firing because of the trauma become deactivated. And so, you have pain-free joint motion and stability and it's pretty miraculous, people are shocked.

**Question:** Interesting. It sounds a bit different than the traditional rest-ice compression-elevation when it comes to an injury.

**Answer:** And the AMIT approach rarely failed. If after I adjust the ankle and I reactivate the muscles, it's still unstable, then, we got a tear somewhere, which is usually a surgical situation. We rule out a fracture to make sure that there's no problem that way but once we rule out fracture, then we go ahead and treat. But I would say in 80% of cases, 85% of cases, athletes are backed out competing within 10, 15 minutes of being treated.

**Question:** Now let's shift focus to the person who, when I just keep going on with this ankle-sprain analogy. Let's say someone is competing on a sport now, like they're doing a marathon in a try-out one or distance running and back when they were in high school and college, they played sports like basketball or football or baseball or something like that and sustained ankle injuries in sports like that and now they're having pain in their knees or pain in their hips and you know, it sounds from your explanation that this type of pain could be related to muscles being shut down or protected because of previous injuries. Now that person comes into you and what can they expect what happens.

**Answer:** So let's say for example, you sprained an ankle in college and treated it normally. If at the time you stood on two scales, one foot on each scale, you would put more weight in the non-trauma side. Even though, the ankle was strained years ago and doesn't hurt because your body is accommodated, you're putting more stress on one side. Now, if you're still active years later you've been putting more stress on that opposite knee joint or hip joint for years and you start getting pain in those joints. Well then you might injure your knee or injure your hip. Now, you got another injury on top of the chronic problem. And so, a lot of times when people come in with knee pain, let's say they have left knee pain and their history shows that they sprained their right ankle a year or two ago, you treat the right ankle and the left knee pain goes away and then everybody has been treating the left knee. So it's a matter of are we treating the cause of the problem or the symptom of the original problem.

**Question:** And what is that assessment process involve?

**Answer:** We can assess all the muscles in the body starting from the ankle to the neck. There are 740 muscles in the body, and so, you know, we don't test commonly every muscle unless there's a problem in those areas. But we are going to grade and assess most of them in our patients.

**Question:** Interesting. Now, from an innovation perspective and muscle tightness or cramping or spasm in perspective, I noticed that you explained how when the body is actually shut down or inhibited in the way that you've explained, you know, due to the injury that it actually loses its ability to inhibit an opposing muscle like if you have weak quads for example. Can you explain how that actually works to people who have to deal with tight muscles, maybe those tight muscles aren't the muscles that were injured?

**Answer:** Tight muscles are symptoms and so in this model, we never treat tight muscles. I'll give you an example. I can talk about this because it was reported in the media. We had a professional basketball player and he had been out for the first part of the season with the chronic hamstring tear. And they went through all the therapies and rehab and then send him back out to play and he stressed it and pulled it again. So they went through the same process again and he pulled it again. Well, up to the third time, he came into my office. Everybody has been treating the hamstring. When I finished my evaluation, I found that the quadricepses were shut down. So when we walk, when we get to a certain point in our gait, the hamstrings engaged and they send inhibitory impulses to the quadriceps to cause the quadriceps to relax. Then all that changes, and so the quadriceps contract and inhibit the hamstring. That's how we move. Now, no muscle has ever totally shut up but they relax and contract. So if the quadriceps muscle groups are inhibited propioceptively because of injuries that we sustained, they lose their abilities to inhibit their antagonist muscles which are the hamstrings. So by reactivating the quadriceps, it allows that inhibition to take place and so the hamstrings will release without even touching the hamstrings. So, even if an athlete comes in with tight pull injured hamstrings, they bend down as far as they can, and they might get down to the near part of their shin before the hamstrings start to hurt. Now, that's just one example of this inhibitory process that we see and why we don't treat tight muscles because most people don't think about their strands of pulled hamstrings. And they never get better because they've been treated the wrong way. They get temporary relief, a little bit of therapy on it and get a little better but the next day after competing, they're tight again. And eventually, it could tear on them.

**Question:** I have a question for you in terms of what people can expect when they actually come in to try out this AMIT technique. Does it hurt or is it uncomfortable?

**Answer:** Yes, it can be uncomfortable, but it's not that extreme. When you have a muscle that shut down, the muscle attachment becomes painful and inflamed. So, if you start stimulating the connections like we do, they're uncomfortable but the longer you stimulate, the better it feels. I mean, I treat kids, they don't like it, but it's not so extreme that they're like saying "I don't want to do this." But anytime you have a acute problem or chronic problem, and you start treating a various of inflammation and pain, it's going to be uncomfortable, but the outcome is so phenomenal that people will say "I'm going to do whatever I need to because this stuff works".

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