

Lawrence Neal: Hi Ted, welcome to The Membership.

Ted Dreisinger: Hi, Lawrence, nice to be here this morning ... For me, I guess it's afternoon for you.

Lawrence Neal: That's right, it's just gone 2:00 p.m. my time, which is perfectly fine. I really, really appreciate you taking the time to be on The Membership Podcast today to talk about lower back training in the context of personal training, and to give your viewpoint on how we can help the personal trainers out there be more effective at getting better results for their clients, and overcoming some of the obstacles in getting clients to train their lower backs, and things of that nature. I'm excited to get into this with you.

Before, I guess, get started asking you some questions, I will just mention that we have already done two other resources. They're absolutely excellent, thanks to you, on this topic already, which I think are a good recap on the origins of lower back pain, which I know is a big mystery, and some of the methods that you know to improve lower back health, and lower back strengthening, and things like that.

I think they're also very, very useful for the members to review as well, in terms of getting an all encompassing understanding of lower back pain, and how to alleviate it. We'll link to those in the [inaudible 00:01:28] this. I think the first thing I wanted to cover off with you, just to intro this piece, is talk about safety. Can you just describe why it's safe to strength train the lower back?

Ted Dreisinger: Yeah. The thing, Lawrence, and for those of your listeners, there seems to be a lot of fear around strengthening the low back, and strengthening the neck, for that matter, or maybe the neck even more than the back. Part of the problem is that physiotherapy in general doesn't do much for the low back, in terms of strengthening it.

Typically, when somebody has a back problem and ends up at the physio, or sees their primary care, or their GP for back pain, the kinds of exercises they're given are all about the core. That would be everything from your sides forward in the trunk, a little bit of movement activity in the lumbar spine, but certainly not loading it. Everybody listening to this podcast knows that if you don't load a muscle, overload a muscle, then it doesn't strengthen.

When people come to the doctor with back pain, that's where we should be focusing our efforts and our energy, is on the back, not on ancillary muscles. I mean, it's a good thing to strengthen the abdomen, and it's a good thing to work on core, all of that, I mean any exercise is good, but to the exclusion of strengthening the low back or the neck, it just doesn't make sense. From the standpoint of efficacy, safety, if things are done right, you can strengthen the low back very easily, and in fact, the low back muscles are pretty strong, much more than we think.

Lawrence Neal: Interesting, so you think it's mostly a ... almost a social programming, conditioning thing, that's led a lot of people to

thinking that heavy loads, even in the context of say a low back machine, where it's set up very safely, are unsafe?

Ted Dreisinger: Yeah, it's a social thing, but also there just isn't any experience. If you look at the physiotherapy curriculum, and I've traveled some around the world, and spoken in about 20 countries to healthcare providers, and physios, and physicians and things, and it's partly cultural or social, but the other thing is they just don't get any training in it.

If you go to the physiotherapy curriculum, or the medical doctor curriculum, or the chiropractic curriculum in this country, almost nothing is taught about strengthening principles, so your audience, this audience that's listening this morning, knows much more about strengthening than healthcare providers.

It's not a matter of avoiding it from a social standpoint, it's just simply ... I'm going to say ignorance. That doesn't mean somebody is stupid, it just means they don't have the exposure to appreciate that the back is like any other muscle. If you're careful and you overload it, you make sure that you don't do rapid repetitions, you reduce the impact forces of the lever arm that you're moving the spine through, it's very safe, and also very important for risk reduction of future injury.

You can never stop a future injury no matter how strong you are, no matter what you do. Things happen, but you can certainly reduce the risk of low back or neck injury by strengthening those muscles.

Lawrence Neal: That was a big aha moment I had in our main podcast together, when you talked about how it's really ... in a lot of cases, it could be speed of movement which can cause an injury. Often, we think of ... I'm sure there's plenty of adverts in the U.S., and there's loads of these in the U.K., where you've got some advert for health insurance or something like that, and they'll typically show a scene of someone bending over to pick something up, and then as they get up, they grimace, and they rub their back with their hand to demonstrate that they've injured themselves.

Obviously, this is very pervasive, and it actually, it makes us think that that act is causing that injury. It could do if they pick something up with a lot of speed, or they weren't picking up the object close to their body, as you've described before, in terms of best practice, but it's not the ... It's done properly, it's not the action as such necessarily causing the injury. I thought that was very interesting. You really kind of opened my mind on that piece, on that subject.

Ted Dreisinger: Well, thank you.

Lawrence Neal: Yeah. If we kind of segue into training, this is something that we have covered in some detail previously, but I thought it'd be just good to recap on some of this stuff. There's a number of exercises that we can use to train the lower back, and they vary in how effective they are at stimulating the target musculature. Do you want to talk about your favorite few exercises that a personal trainer has in their portfolio for addressing this?

Ted Dreisinger: Yeah, so we should probably start with the least technical, meaning the least equipment necessary, exercises that could be done, and then we'll move up the ladder to a little bit more high tech. It's simply lying on the ground and doing Superman exercises, and when I say Superman exercises, that's a common term here in the U.S. I don't know if it's common in other places, but you simply lie prone on the ground and lift your trunk while keeping your legs and feet on the ground. You sort of arch your back unsupported, just with your low back muscles.

It could be done with your arms close into your shoulders, or down by your side, and then as you are able to do a little bit more, you can actually get into a Superman position where you put your arms out in front of you, and increase the load on that lever arm with the low back that's doing the contracting and lifting.

Typically, depending on how you're built, so I've got long, heavy legs, and not so long, heavy trunks, so I can do that without support. Sometimes it requires holding the legs down, and that's a good thing for a personal trainer to do.

There have been data that suggests that just doing that exercise can be helpful, particularly in older people in the future potential for osteoporosis and things like that in the low back. Moving up a little bit, we call them a Swiss Ball, but one of those large exercise balls. I don't know what you might call them.

Lawrence Neal: Yeah, same thing. A Fit Ball in the U.K. I think.

Ted Dreisinger: Yeah, yeah.

Lawrence Neal: But this is basically U.S. listeners, so that's kind of irrelevant.

Ted Dreisinger: Okay. Okay, so you just simply lie on that ball prone with your tummy down, and lean forward enough, or move forward enough so that the ball is under your hips. Then you would simply flex down, relax, and slowly extend up as far as you can. The concentration should be not on the gluteals, so for the trainers out there listening to this, personal trainers, you want to try to avoid a strong contraction of the glutes, because that will ... they will be the muscles that will do the lifting.

What you really want is the low back muscles, the multifidi, and the erector spinae, those ... The erector spinae are the real long ones that run for your hips up here. Spine and the multifidi are the little muscles that go between the vertebral bodies. That also may require holding a person's feet so they can extend out over that Swiss Ball.

Any time you touch somebody, if it's appropriate, for example, in the Superman exercise or on the Swiss Ball, it's always helpful. It's been my experience that if you can hold people, support people, and do it in a physical way, sometimes that inspires a kind of confidence. This sounds almost external to the things we're talking about, but everybody listening to this that has a child knows this.

You pick up a crying child, and the child gets calm. That's because you've shared some of your calmness with them. If you're a confident personal trainer, and you feel comfortable touching people appropriately, sometimes in this country, we're so litigious it's a good thing to ask them about that, but that inspires confidence in the client that you're working with.

The exercises on the Swiss Ball, even on the Superman, probably you're going to want to do 10 or 11 repetitions. If you have somebody for the first time that hasn't done much of this, I should mention that the small muscles of your low back are not used to exercising. The first two or three sessions, maybe the first couple of session, you want to be a little careful about the number of repetitions you can do, the client does, even if they can do more than you think.

I would limit it to 12, 10 to 12 repetitions, so that the delayed onset of muscle soreness that they are absolutely going to get, they will not perceive that you injured them. And of course, you're going to want to tell them that they're probably going to be sore, because they haven't used these muscles very much. That's important to share with them.

Moving up the tech ladder, a Roman chair is a wonderful tool for strengthening the low back. The Roman chair is where you lie prone with your hips on this pad, and lean with your trunk all the way down, and then you extend yourself up. I'm not so keen about the horizontal chairs, meaning that when you lie on that pad, your legs are straight out behind you.

I'm more inclined to use an angulated Roman chair, so that you have your feet down toward the floor, and when you're hanging over, your legs are at an angle down toward the floor. The important thing about the Roman chair exercise, again, is to minimize the use of the glutes. What typically happens, what you see in athletic training in this country, football players, I'm not sure about Europe, probably European football. We call that soccer, but that's because we don't know any better.

You see these fellas, big fellas on these Roman chairs with holding big weights, maybe a 20 kilo weight, or a 25 kilo weight. For the Americans listening, 45 pounds, or 25 pound weights. They're doing these hyperextensions on their own chair, and they're lifting all the weight up so they're not almost straight from their head to their feet, whether they're on a horizontal chair or on an angulated chair.

What's happening there, is they're using their gluteals and hamstrings to do the lifting. The low back is not doing much of the lifting. The real key on a Roman chair is to have the patients pigeon toe themselves a little bit, and then tell them that you want them to lift their trunk with their glutes completely relaxed.

This is a place where you might ask if you could touch them, or if you show them, have them touch you. If you're doing a Roman Chair exercise, and you want to instruct the patient initially, you get on the device, and ask them to put their hand on the side of your glute. Then when you lift all the



way up and hyper-extend your gluteals, your buttocks will become rock hard.

If on the other hand, then you flex again forward and come up just with your low back, your gluteals will be completely relaxed, and all the effort will be being done by the lumbar extensors, which is a key to success in this kind of exercise. Then you just have to instruct them a little bit.

What I typically do with patients that I've trained over the years, is when they get on the device and they pigeon toe themselves, and they begin to come up, I hold my thumbs on the back of their hip, and my fingers on the front of their pelvis, so when they lift, I'm pushing, rocking them forward, so I'm pushing them down and forward while they're coming up and backward. It takes a little bit of time to ... a few repetitions for them to learn how to do it, but like riding a bicycle, once you have it, you'll always have it.

From there, there are exercise devices where they're pin-loaded machines where you simply put weights on them, and you sit and strap your hips down, and have a place for your feet and lean back. The problem with those kinds of machines, unless you can really stabilize the pelvis is once you get to heavier weights, you can't keep the pelvis from rocking backward. It's just almost impossible.

Even if you've got a lap belt on, if you get to heavier weights, your buttocks and pelvis will come right out of the seat. Well actually, heavier weights, let me be clear. If you're in a restraining device, your low back can lift a ton of

weight. A ton, I'm sorry, but not really a ton, but several hundred pounds. I'm 71, and the last time I was in a high tech machine that stabilized my pelvis was when I was 65.

At that time, I was able to lift about 350 pounds, 15 repetitions to failure, sitting in a seated position with my pelvis completely locked, working on a selectorizer machine, you know, where you put pins in it and lift the weights. The low back is quite a bit more robust than we think, but stabilizing the pelvis and being careful not to cause jerking movements, and impact forces by doing quick repetitions is really the key.

So we've gone from lying on the floor to high tech machines, all of which are intended to cause the low back muscles to contract forcefully, carefully, safely, and eventually, if you do it right, even on a Superman or a Roman chair, you probably won't be able to do more than 12 repetitions to muscular fatigue. That's sort of the story from low to high on strengthening the low back.

Lawrence Neal: Yeah, that was excellent. Thank you for that. I think those listening will have ... there will be different blends, so there are many members who have MedX lower back, that the premium option in their facility. Then there will be people just starting out who don't have that, so they have kind of more lower tech options available to them. So no, that was really, really helpful, Ted. I appreciate you going through that.

One of the things you kind of hinted at, and we talked about in a previous episode, is this kind of mind-muscle connection, and actually consciously contracting the lower back at full contraction in these various exercises, so that you're consciously focused on that versus subconsciously contracting your glutes and your hamstrings, which can be very easy to do. Do you want to speak a little bit about that? Well, I don't know if you can add much to that, or if I've just said it all.

Ted Dreisinger: Yeah. No, no, Lawrence. One of the things that ... So let's step into another ... step out of the strength training field into another field for just a moment, and then we'll step right back, because it will inform this discussion.

I don't know how many personal trainers listening to this do anything with stress management with their patients. I know it's a strengthening deal, but also teaching them how to think about what they're doing. In relaxation techniques, oftentimes there are a lot of different ones, but several techniques will ask you to visualize relaxing different muscles. They'll ask you to visualize your feet while they're relaxing. Even some people can visualize their toes when they're relaxing, or their nose, or their fingers, or their forehead, or the facial muscles, or whatever.

So now let's step back into the personal training arena. Personal training is about teaching a person how to do things properly. Not just the physical part of it, but also the mental part of it. Cognition, that is to say how the client is thinking

about that, is really important. If you can ask the client to visualize first of all, visualize their back, visualize their shoulder blades, their spinal column, their low back, their buttocks, their hamstrings, just take a moment to visualize that, and even send them home with an exercise to do that, a thought exercise.

But then your point is extremely well taken, and your comment, Lawrence, is perceptive and thoughtful. When they're on the machine, if they focus on the lumbar extensors, or on the floor, or on a Swiss Ball, or in a higher tech machine like a MedX, or a gym low back machine, then they'll be much more successful, rather than just getting on and doing it.

That's a great benefit that you give your client. You're not just a technician teaching them how to move muscles, a monkey can do that. What makes a personal trainer a personal trainer is the personal part of training. That is personally interacting with that client so that they feel that you are an important addition to their lives. Of course when you do that, then from a business standpoint, you increase your references to other people, and you bond with your clients in a way that makes your business more successful.

Lawrence Neal: Yeah. No, that's very good point. I appreciate you putting this all in the context from a personal trainer's perspective. It's really useful. One thing you said, which is very interesting too, is that some lower back machines don't properly restrain the lower part, lower body. I love your

metaphor in a previous episode where you talked about imagine being in a bucket of concrete up to your hips. That was great.

That's exactly what the MedX lower back does, which makes it so effective. I was on one of these Matrix lower back machines, which is kind of a more of a ... I don't know if you're familiar, is more of a commercially widespread machine.

Ted Dreisinger: Sure.

Lawrence Neal: It's pretty terrible. I sat on it, and as soon as I put a meaningful load on the machine, like you said, my pelvis was jutting up, because the seatbelt wasn't keeping my lower body down effectively. I just wondered, I'm not used to Nautilus lower back, but is it the same problem with a Nautilus lower back? I know they just have, I believe, the Nautilus machine I've seen just has a restraint for your feet, it doesn't keep your pelvis locked down. Is it the same problem with Nautilus, do you know?

Ted Dreisinger: It's the same problem with almost all the low back exercise machines, Lawrence, and some are a little better than others. MedX has an exercise only low back machine that's quite elaborate in its stabilization of the lower extremity, and very much like the big testing machines. Those machines are quite expensive.

I suppose the best thing to do in machines like that, it's of course, if they don't have a lap belt, then it really isn't a low

back machine, because you're going to come right up out of the chair. It's a wonderful glute machine. You know, it's great for your abs and great for your glutes, but it won't do much for your low back extensors.

One thing that can be done is that you consciously, and this goes right back to the comments just a moment ago about thinking through the muscle group, because most people that you train the low back with, and most trainers that are listening to this are a little bit uncomfortable in the beginning of putting much of a load on the low back. You really don't have enough of a load to cause yourself to lift out of the chair.

I can assure everybody listening to this, if you're sitting in one of those selectorized machines, and use a little bit of restraint with the low back, your clients will be able to lift a couple hundred pounds. 100 pounds, 50 pounds, 80 pounds, 200 pounds. You'll be surprised how much they can move through a range of motion when their muscles are loaded.

There will be some people who will strengthen right up, and want to strengthen more, and those are the people that won't get the best benefit, because the machine isn't designed to help them, because they just come out of the chair, or they scoot up on the back of the pad that's supposed to be holding their pelvis in place. If they think about, if you ask them to think when they're doing the exercise, concentrate, use the low back muscles, that will help them inhibit the glutes somewhat. When you get to heavy loads,

it's pretty tough on any of those machines, Lawrence. It's pretty tough.

Lawrence Neal: Yeah, it's interesting, because as you're saying this, I'm kind of reflecting back on my very, very first experience with the MedX lower back at Kieser in London, which I know you're familiar with that-

Ted Dreisinger: Yes.

Lawrence Neal: ... that facility, which I believe is no longer around, unfortunately. I remember sitting in that machine, and because I was lucky enough to have a chap ... I think his name was Max. He was the MD that the Managing Director of that facility, so he's probably one of the best people I could have supervise me for the first time.

Ted Dreisinger: Yes.

Lawrence Neal: He put me in the machine and explained to me that it was safe. I think anytime someone has their first experience on a MedX lower back, they feel incredibly vulnerable, because they never experienced ... Do you know what I mean? Of course you know what I mean.

They've never experienced that type of load on their lower back in that position, and so it's almost like ... the way I perceived it, is I was waiting for something bad to happen. Then obviously you train, and you do a one set, and you might go to failure or close to it, and then you realize, "Wow,

this is incredibly safe." It's a very enlightening experience to have that, for sure.

Ted Dreisinger: Yeah, and probably, I mean, I've done ... when I say thousands, it sounds like tens of thousands. I haven't done tens of thousands, but I've done thousands of patients training their low backs. Low back patients are much different than anybody else, like you just suggested. They see a machine that once you're put in a device like that, it's sort of like you can't get out unless somebody lets you out. If they ask for the keys to your car and the will to your house and your bank account, you probably would give it to them, because it's such an intimidatingly big machine.

Once a person realizes the efficacy of it, and if it's done safely and carefully, it is a profoundly meaningful device and helpful device. The thing is, that it's so expensive that it's just [crosstalk 00:25:34] reach.

Lawrence Neal: Yeah.

Ted Dreisinger: But stabilizing the pelvis is the key. If you're thinking about, for example, doing curls, or doing quad sets, you want to isolate the muscles as much as you can, right? It's the same with the low back. You don't want all these ancillary extra muscles involved in the contraction if you can help it. You want to focus on the muscle group that you're trying to strengthen. It's no different with the spine. The back is just exactly the same as any other muscle, except it's just smaller muscles.



Lawrence Neal: Yeah. No, I appreciate your point on that. That was actually going to naturally lead me onto a question about workout programming. Dr. Doug McGuff's famous for ... he'll hate me saying this, but he kind of did popularize the Big Five, even though he was just trying to find five compound exercises that were safe to do to get people started.

Anyway, so he picked five big common exercises, which are the pull down, the chest press, seated row, overhead press, and leg press. And obviously, he's not adverse at all to having a [inaudible 00:26:48], like a lower back machine. In fact, he's got a lower back ... Oh no, he doesn't have a lower back in his facility, but he addresses it with a pull down. If you can imagine, he extends his ... he goes into ... not into inflection, but he ...

So you know like in a pull down, you're at kind of a 90 degree angle at the hip? He'll kind of lean back, and then pull the ... straighten his arms completely, and then pull down towards him as he moves backwards. He uses that exercise to [inaudible 00:27:19] the lower back. That's kind of going off topic. The kind of question I had was I wonder if you're doing ... Because one of the things I learned from Doug is the muscles are incredibly interwoven. When you're doing a chest press, or a seat row, you're working so many muscles in tandem.

I wound up doing a Big Five, like I described, where you're doing big multi-joint movements, you're covering the most of the musculature. I would assume that you are maybe not

directly stimulating lower back compared to like a lower back machine, but you are getting some stimulus to the lower back in that overall workout. What are your thoughts on that? Do you think that's true? Do you think it's not sufficient? What's your thoughts?

Ted Dreisinger: In the first instance, I'm not in the business of promoting Doug McGuff, but let me say this, that the [Body By Science](#) book I think should be on the bookshelves of every personal trainer out there.

Lawrence Neal: I agree.

Ted Dreisinger: I don't know Doug personally, but he's a Canadian from Orillia, and I like that because I'm a Canadian from Toronto, and I've spent a lot of time-

Lawrence Neal: I had no idea.

Ted Dreisinger: ... where he lives, in his region. He and John Little put this Big Five together, and I'm great with that. I think the reason that you don't get much back strengthening out of McGuff is that he doesn't have any experience with it, like the physios we talked about.

It's not because he wouldn't be comfortable with it, it's just there's no experience with it. Let me just say one other thing, and I'll pass by this real quickly. The physiology section of his books, his book [Body By Science](#) is one of the best accessible, meaning that readable and understandable,

pieces on muscle physiology that I've seen anywhere. I love the book.

The Big Five is not much different than Jorgen Albrechtsen did in Denmark for many years. He was sort of the guru of strength training for decades in Denmark. They sort of disappeared. He runs a franchise called Concept 10 10. It's basically a slow muscle strengthening, 10 seconds up, 10 seconds down, but he's only got five machines. He's done it all over the world very successfully.

I think programs like this, if you've got people that need to get in, and get out, and get a good muscle hardening systemically, those are pretty good programs. To your specific question, yes, there's a lot of bleed over, but there's nothing like actually loading the muscle that you want to strengthen. You'll get some bleed over in your biceps if you don't just do bicep strengthening. Some, because the neurophysiology of all this interwoven thing we live in, and at the moment, I'm teaching physiology to some pre-nursing students here in the U.S. where I live, and I'm reminded daily to your very point how totally integrated everything is.

We talk about the musculoskeletal system like it's independent from the heart and circulation, and hormones, and respiration, and digestion, as if it's some kind of separate system. It's all integrated. And yeah, you do get bleed over, but you don't get the kind of bleed over you would get if you load the specific muscle you're wanting to train.

Lawrence Neal: It's interesting. I guess there's probably no science to show the difference of comparing two groups, one that we did, like let's say a Big Five machine, versus one that did a Big Five, or controlled for doing a lower back machine in some way. I suppose it's again, it's so hard to do any science on that, because the length of time you would need to see a potential difference in outcomes.

Ted Dreisinger: Yeah, that's true, but there have been comparative studies looking at restrained and not restrained strengthening of the low back.

Lawrence Neal: Right.

Ted Dreisinger: When you're restrained, meaning that the pelvis is really held in place, versus having no restraint at all, the early work done between a Nautilus machine, low back machine and the Medx, showed that the amount of weight that was lifted between the two after strengthening wasn't much different, but the big difference was that the contribution of the gluteals and the unrestrained spine.

Lawrence Neal: What about the adaptations in the actual ... that musculature? Did they measure that in that one?

Ted Dreisinger: Yeah, they did, and it turned out that the unrestrained low back with the Nautilus did not do anywhere near as well in isolated testing as of course the strengthening had. That could be just specificity of training, kind of what you're saying. I'm not sure that ... I mean, the key every trainer listening to this knows is sort of like we had a president here

in the U.S. names Lyndon Johnson, and he said, "Science is good, but results are better."

Every personal trainer here that's listening to this knows that results are the key. McGuff and John will get great results. They wouldn't keep doing it, and they wouldn't be writing about it if they weren't showing dramatic results and getting dramatic results. There are other programs, as you know, Lawrence, and other not approaches, because you load a muscle, that's how you strengthen it, but there are other models for the number of exercises.

The American College of Sports Medicine, for example, recommends several strengthening muscle groups, not just five, but they don't have the kind of on-the-ground experience that McGuff and Little have. The real key is you get bleed over, but if you want to harden a certain part of your body, then you should do something to harden that part of your body. That's just the science of musculoskeletal heterotrophic change.

Lawrence Neal: Cool. Now, great point. Because I didn't describe it very well, nor do I know the name of it, I will put a link to Doug demonstrating his back exercise anywhere if people want to see a visual of what I was talking about there as well. But no, that's a very good point, and I totally agree. That's why I do do [inaudible 00:34:11] trunk extension, which is just a synonym for what you were talking about, the Supermans. I add that to my workout myself.

Really want to jump into talking about personal training, the relationship with clients, some of the obstacles we face in trying to get people to strength train their lower back. When we talked before, and in fact, you mentioned it earlier, how so important it is to be sensitive to the client, and become good with people, and understand people in this profession.

Not to overstep training, right? Not to overstep the medical community and the physical therapy community who will go mad if they think you are trying to treat lower back pain, right?

Ted Dreisinger: Right.

Lawrence Neal: So you talked about that before, how it's important to stay within your domain. Just wanted to start with asking you, and how did you go about before putting someone on a MedX lower back, or any I guess lower back exercise, how might you screen that person before?

Ted Dreisinger: That's a really great question, Lawrence. Let me reinforce a comment you just made. It's really important to stay inside your scope of practice, and it's important to do that, and it's really easy to get outside of your scope of practice, because patients are ... not patients, I'm sorry, clients are going to be asking you questions that you're going to be inclined to answer that you really shouldn't even try to answer.

Meaning something like a patient might say, "Well, I did this yesterday and my back cleared up a little bit. Will this exercise make it better or what do you think I should do?"

Those are questions that you just don't even want to engage. You want to say to your client, "Well, if you flared your back up yesterday, then maybe you should talk to your physician, or maybe you should talk to your physio." The inclination oftentimes is to say, "Well, you might try a little bit of anti-inflammatory medication." Boy, you stepped right across a line that could get you into an awful lot of trouble if anybody get angry about that.

In the first instance, knowing your scope of practice is really important. Now, to your point, there are some very specific things that you would want to ask your client. They come to you and they say, "I want to strengthen," and you tell them, "Well, part of what we are going to do is back strengthening, so there's some things that I'd like to know about you, John. Have you had back pain in the last six months?"

If they say yes, then ask them if they've seen a healthcare provider, some kind of healthcare provider. Most people don't go see the doctor or physio, they just live with it and it gets better. "Have you had any back pain in the last six months? If so, did it get better? Did you seek treatment, yes or no? Did it get better?" "Yes." "Are you having back pain now?" "No." "Have you had any back pain in the last five or six weeks?" "No," or, "Yes."

If yes, in the last month, then it wouldn't be a bad thing to have them get clearance from their physician for them to do the exercises. That means you'd want to have a small

handout or something that would say, "This is what we do here," and have a doctor sign off on that.

Now, that sounds like a lot to do, but trust me, at least in the U.S., the doctor can give you coverage that you can wrap around you like a warm blanket. That could be very helpful. So you just want to know ... You might ask a few questions just to get a sense of, "Well, your back's bothering you. Are you able to walk? Does it hurt you to sit? Does it hurt you to stand still? Would you rather lie down than stand up and move?"

Those kinds of questions can just give you a little bit of insight into whether this person actually has difficulty or not. The main thing is to have somebody that is symptom free when you're treating them as a personal trainer, and that if they have had a history of back pain ... In other words, you might even say, "So you had back pain six months go. Is this common? Have you had it more frequently in your life?" "Yeah, well, every six or eight months I get this flare up."

Well, you don't want to be in the window of a flare up when you're training somebody, so those are questions you just want to get in early. This is standard. I don't know what other standard questions you might ask when you're doing physical activity, but some sort of ... they sign off on some kind of release form.

Then with the low back, it's just starting slowly and carefully. You will, even doing the Superman exercise, you could do three, or four, or five repetitions, and that's all I



would recommend somebody do the first session. They're going to be uncomfortable. They're going to have some delayed onset of muscle soreness, because those muscles are not, that's N-O-T, not used to being active.

If you bring them in slowly with the low back in addition to the other things you're doing, you will have a client who will lower their risk for injury, who will feel better during the day, who will be able to do more things with less fear, and they'll be grateful to you for that.

Lawrence Neal: Do you think people have a different perception when it comes to delayed onset muscle soreness in the lower back than say in the arms or legs? A lot of people celebrate that soreness, don't they? "Oh, I worked so hard. I feel so sore." That's like a positive sign for some people, but with the lower back, do you think it's different for the reasons you said?

Ted Dreisinger: Well, it's different only because of the aura of negativity about low back pain. I mean, the aura of low back pain is ... If anybody in this audience has had back pain, they will know that an episode of acute back pain can be almost like having a kidney stone. It's not quite that bad, but it can be very sharp, and extremely uncomfortable. It makes you feel like you're going to die today.

I'm fortunate in my life to have only had a couple of episodes, and I had both those episodes when I was pretty knowledgeable about back pain and knew what to do. The first time it happened, and as I was lying on the ground, my

first thought was, "Just give me a gun and shoot me," because it was so painful.

So yeah, there is a stigma about back pain, and you certainly don't want to do anything in your practice that will exacerbate that. So careful control, deliberate movement that doesn't jerk anything, that doesn't have impact forces anywhere is a safety piece of that, but there is a cultural aura about that, Lawrence, there's no doubt about it.

Lawrence Neal: Interesting. You've got obviously a lot of experience working with patients in this context. What are some of the most common objections that you've had from people about strength training the lower back, and how have you overcome those?

Ted Dreisinger: Yeah, well the most common one is, "My doctor or physio told me not to do anything, not to lift over 20 pounds." Now we're talking about standing up, or bending over to pick something up, but that's sort of ingrained in people's minds. If you ask somebody when they had back pain, and asked them what they were told about the kind of weight they should lift, and they're all going to tell you, "Eight kilos, you know, 20 pounds," whatever the doctor or physio told to be careful about their back.

"Protect your back. Don't do anything to hurt your back. If you move the wrong way, you're going to have back problems." Those are things that people are going to come to you already enculturated with. There is a culture of fear of injuring the low back, and everybody knows somebody who's

got back pain. Everybody knows somebody who went to surgery and didn't do well with it. Everybody knows somebody who gets back pain and can't do anything for a week or two, or sometimes longer.

There is this constant, sometimes quite in-your-face, and oftentimes just undercurrent or quiet urgency that people have when they talk about their back pain. People love to talk about their back pain. I've been on lots of airplane rides, I've flown about three million miles in my career, and I don't tell people that I'm involved in back pain anymore, because in the early days, sometimes I'd be on a flight for six hours and hear about somebody's back pain for six hours.

So yeah, there is a culture of that. That then leads to the character and the quality of the personal trainer. That comes to where you could touch them while they're moving, if you're so inclined. That comes to where you can put your hand on their low back when they're doing a Superman exercise and ask them if they can feel those muscles.

Then you could feedback them, say, "Yeah, yeah, those muscles are really contracting." So yeah, there is a huge culture about back and neck pain, and it's made worse by professional healthcare people. It's made worse by doctors, it's made worse by physios, it's made worse by chiropractors, because they're all in the business of treating. Why wouldn't they tell you that you're going to hurt yourself? Because you're going to come back to them. It's a very complicated morass of social, economic, psychological phenomenon.

Lawrence Neal: Yeah, what you said there is clearly a huge fear, or behind the fear that many clients have in terms of strength training their lower back. It's also very difficult for trainers to overcome those fears. I'm just wondering if you've got any thoughts on some effective things to say in that context to open the mind up of that client so that they will be open to giving it a go and strength train their lower back?

Ted Dreisinger: Yeah, a couple things. One is I would put strength training of the low back maybe the second or third tier thing you do with the client once you get them. I wouldn't jump right into the low back straight away.

The other thing is trust, and if someone begins to trust what you're doing with them, they'll let you do a lot of stuff. I don't know how many listening to this have done much group dynamics, but if you're a speaker in a large group and people trust you, you can tell them to do anything and they'll do it right there in front of you, because they trust you.

Trust is really important. I wouldn't do the back exercise strengthening until you had them trusting you in some of the other muscle groups in the body. The other thing that would be helpful, I think, there are two or three maybe key articles that could be made available to the trainers in this audience, and then they could show those to the patients.

People respond to what they think is authoritative science, and so if you can just have a couple of peer reviewed articles that they'll look impressive, and have a headline that says something about management of chronic back and neck pain,

blah blah blah, strengthening the back is safe, then that could be very helpful. I would have some collateral information to share with patients that makes you as the trainer look more authoritative because you are using authoritative sources for what you're doing with them.

Lawrence Neal: I think that's an excellent idea. One of the things I am going to do after this is put together a PDF with just like a one-pager for all the members who actually print that out and use it to support them when having these discussions. It will have on the PDF maybe the abstract for a number of studies that support what you're saying.

Also, on that same page, use it to summarize some of the points you've raised here and in previous podcasts as well, so that they have that resource, and then all of them can just kind of print that out and use that. Good stuff.

One of the other things you mentioned before, is there's obviously alternative methods to ... alternative practice that people go to to quote unquote, "Improve back health or strengthen their lower back." Things like rolfing. If someone came to a facility and said, "Oh, I don't need to do that machine because I do rolfing," or fill in the blank. How might you rebuttal those and explain that they should still be doing some kind of lower back strength training?

Ted Dreisinger: Yeah, well anybody that's done rolfing, you got a client that you could beat to death before they complain. I don't know if your audience knows what rolfing is, but it's an extremely painful for connective tissue releasing technique that's ...

people have cathartic experiences in rolfing, and they never go back.

One of the things, the big difference is whatever you've done before mostly has been done to you, not by you. That's a big difference with almost everybody you see. If you come from physio practice, they come to you after they've been through a successful physio, and you ask them what they did for their back. This is something I do frequently.

I'll ask someone that I know that's had back pain and been treated, and I'll say, "So when you were in physio, what did you do for your back?" They'll say, "Well, I was on a treadmill," or, "I was on a bike." I said, "That's great, I mean, exercise is wonderful, but what I was really interested in was what did you do for your back?" "Oh, well, I did all these core exercises, and I did the up dogs, kind of like up dogs, or cobra exercises, and I did dead bug exercises so that my physio showed me." I would say again, "That couldn't be much better than that kind of activity, but what I was actually interested in was what did you do for your back?"

About the third time I asked that, I'd get this sort of questioning look on the individual's face, and they'd go, "Actually, I didn't do anything for my back." I think that one of the things to overcome, that helps overcome, are a line of questions to your client that says, "I don't need to do this because ..." fill in the blank whatever it is.

You can look at them with all the confidence in the world and say, "Those things are really great. In fact, I would

encourage you if you're interested in that to keep that up, but maybe I could make the point that those are things that were done to you. Hot packs, cold packs, ultrasound activity, whatever it is. But what I bring to you is something you can do. I want to teach you how to do these activities that you can do wherever you are, that will help harden your back like you would harden your knees, or your shoulders, or your elbows, or your ankles, and that's something I have to offer you that you probably haven't had before."

Lawrence Neal: That's excellent. Yeah. I think that's a great way of articulating it. There's one final question for you, Ted, that I wanted to ask, and it's something that we talked about before. When you first started, let's say on a lower back machine, it's very, very motivating to see that weight go up every single week, which obviously happens when you're a beginner, because you're getting stronger, and just from ... not only from a muscular prospective, more from a neural perspective as well.

So you're seeing those gains, but then eventually, as we all know, sadly, they don't keep going on forever. We also start to flatten out, or improve very, very gradually. I just was curious, I've had Luke talk about the importance of novelty, which is novelty is quite a controversial word in high intensity training, because there's quite a lot of fairly dogmatic individuals who will be like, "No, you can do the Big Five forever. You don't have to do anything else. You don't need to change the programming."

However, I feel like Luke made a good point, which is that when it comes to client retention, novelty is quite important. It might not mean anything different in terms of adaptations, but in terms of keeping the client motivated, it might be quite important. I just wondered, if you had a client who's on the lower back, and they've hit that point where they're not getting any progress, would you try and maybe provide some novelty on lower back training, or would you try and perhaps keep that a constant and find novelty elsewhere? How would you address that?

Ted Dreisinger: Yeah, that's a great question, Lawrence. The low back is a little bit unique in the sense that it's hard to do much novelty work, because it's really hard to strengthen the low back. I mean, that's one of the reasons that it isn't done. One reason, of course, is people aren't trained to think that way, but the other is it's difficult to strengthen the low back to think about how you might isolate those muscles.

To your point, and it's important, what I told patients for years, and I would tell anybody, that, "Look, in the beginning, you're going to make tremendous gains," and they're going to see that in about two weeks in, three weeks in, because you know that flattening of the curve is going to happen between five ... four to six weeks, somewhere in there.

So for the first couple of sessions, I encourage them, "Look how you're doing. This is absolutely great." About the third session, I know they're going to still get quite a bit



apparently stronger ... appear to get stronger in the subsequent week or two, I begin to tell them, "You know, this is going to begin to flatten out, because that's the normal way that muscles work. What we're going to do as this flattens out, is we're going to change the character of your muscle at a ... I don't want to say cellular level, but there's probably a better way to say that, that we're going to continue to work inside the muscle.

At first it looks like you're getting stronger, because you haven't had any ... your muscle hasn't had an experience, but once you begin to flatten that thing out," and I wouldn't tell them that, again, for the first three or four weeks, "now we're in muscle health. Our job is to make the muscle healthier, and that's what we're going to do and continue to do."

To the novelty point, Luke is exactly right. You might tell them who Luke is, so people if they don't know him will know who he is.

Lawrence Neal: Yeah.

Ted Dreisinger: Go ahead, sorry.

Lawrence Neal: Sorry, that's okay. I mean, 99% are going to know, but it's a good point. Luke Carlson is CEO of Discover Strength, one of the fastest growing high intensity studio operators in the U.S., so good man to follow if you're interested in improving your fit business.

Ted Dreisinger: Yeah, so the thing about having a program that you should do forever, and what I would like to caution ... maybe not caution, but just to plant the seed in the minds of the personal trainers out there, if you find yourself being dogmatic that this is the way it should work forever, then it's a mistake. You'll stop paying attention to the human being that you're training, you'll have an automatic thing that you do, and it will never change, and you will never change.

Luke is exactly right. Human beings, the reason you read the newspaper is because you're looking for what's different today. The reason you watch the news, what's different? The reason you go another concert is, is this somebody that I want to hear their new music? We are as human beings, built to notice change. That's what gets our attention.

If you're knowledgeable about muscle strengthening, you can do all kinds of novel things, and change things around. Just even if for no other reason to give a cognitive break, a mental break from what your clients have been doing. That of course means that you would need to become more and more confident in your chosen profession. A professional is somebody who is able to make those kinds of changes, and still keep the compass pointing due north.

In other words, still going in the direction that is meaningful for the client. You should have the flexibility to be able to think through that and modify things. I mean, I love this Big Five exercise deal, and I'm pretty knowledgeable about it, but I do other things. I try to be pretty active just for my

own sake, not because I have somebody training me. That's an excellent point, Lawrence, and a really good question.

Lawrence Neal: Appreciate you talking about human behavior around that, that was actually really interesting and very useful. Ted, thank you so much again for joining me to do this. This has been a lot of fun, and hopefully it's been very useful for the budding personal trainers and the business owners out there. Certainly useful for me for sure. What's the best way for people to find out more about you and get in touch with you directly?

Ted Dreisinger: Well, I'm happy for them to [write me at my email](#). I have a website, but it's for writing that I do. It's unrelated to the clinical and professional stuff. [I've written some books about just life observation and stuff](#), so that's really what my website is about.

I'm at the end of my career, meaning that I'm still working, but as we've talked about before, Lawrence, I kind of see the runway. To be able to do this with someone like you is wonderful, and I want to compliment you before we get off this thing. The effort that you have made and are continuing to make to bring to personal trainers the kinds of ideas and thoughts that will make them better.

It's important to realize that part of your internal mission is to help make the personal training arena, those that are listening to this, just to make them better personal trainers. You're bringing a very wide and broad personality and

content area to these kinds of podcasts, and I just want to compliment you on that. I'm delighted to participate.

Lawrence Neal: Thank you, Ted.

Ted Dreisinger: I hope it goes through the roof.

Lawrence Neal: Yeah, thank you so much. That's really nice of you to say, I really appreciate it. What's your email again, for those that want to write you, if that's-

Ted Dreisinger: Yeah, it's tdreisinger. So T like in Ted, D-R-E-I-S-I-N-G-E-R, tdreisinger@therapyadvisors, that's all one word, therapyadvisors.com.

Lawrence Neal: Excellent. I'll also list that in the show notes there for people to see if they want to message you directly. But no, thanks again, and thank you for your compliment, I appreciate it. You're quite right. It's not something that we've spoken about much, I don't think, but the kind of mission behind this is really essentially to get more people strength training.

The most leverage I can have is effecting change in all of these businesses that I'm really passionate about helping, and obviously passionate about this practice of strength training myself. The more people we can get doing this stuff, and the better. That's the kind of why, if you will.

Ted Dreisinger: Yeah, and let me make one more quick comment before we get off, about that very thing. My local YMCA, I strength train pretty regularly there, and they're buying new equipment, and they're buying a bunch of treadmills and

steppers and stuff like that. Every time I see them, I encourage them to ... that's okay.

Those kind of activities are wonderful, but if you want to give people good health until they take their last breath, you need to make your strength training area better, and bigger, and encourage people to use it, because aerobic activity is great, but you're not going to be running marathons when you're 90. When you're 90, you're going to want to get out of a chair, and you're going to want to be able to pick stuff up, and get in and out of your car, and that's all about strength. We have a big mission in front of us to educate people about strength.

Lawrence Neal: Yeah, completely. I 100% agree with that. Ted, thanks again for coming on, I really, really appreciate it, and I hope you have an excellent day.

Ted Dreisinger: Thank you, you too, Lawrence. Take care, and to everybody out there, keep pumping iron.

Lawrence Neal: Excellent. Cheers, Ted. Take care. Bye now.

Ted Dreisinger: Cheers. Bye-bye.