

Toni Talks | Humanity Matters

Episode 2 | Part 1

How to build a strong core and avoid lower back injuries

Welcome to Toni talks where humanity matters! I'm your host, Toni Julian. And today our topic is something the overwhelming majority of you I know can relate to which is back pain. According to the national institutes of health, over 80% of us have experienced at least one episode in our lifetimes.

That's way too much. And 25% of us will have a second episode. So, if you're one of the many, you know how much it impacts your life. It impacts your attitude, your patience, and your ability to show up in the world in a positive way. And if you're like me, I know pain can sap the energy out of you. It can leave you depleted, depressed, unable to manage sometimes even just the simpler tasks in life, much less take care of family and other things that we need to do.

I believe that back pain does not need to be a downward spiral. If you've ever caught your foot on uneven pavement or jarred your lower back, I have done that. It is so painful. And if you've ever experienced a sharp pain or a spasm, or maybe bent down to pick something up and injured your back, the most likely reason could be a weak core. During this episode, I'm going to share with you how to build a stronger core through very specific exercises that you can do anywhere, anytime, my number one stretch to alleviate lower back compression, my 10 minute core training morning routine, how to avoid injury and options recover more quickly if you do happen to experience pain or strain in your lower back.

As mentioned in my first podcast, just remember to be discerning. That's what I want for you. I want you to seek out advice and make the best educated decisions that serves you and your health because you know your body best. Let's think about your typical day. You could be doing one or maybe a combination of these things every day, which are major contributors. You could be using improper form while sitting at your desk. Maybe you don't have any lumbar support or you're slumped over. You could be spending too much time doing one thing, like too much time sitting, too much time standing or laying down. Your exercise program could be not set up correctly, where you're progressing in a way where you're building your extremities but not focusing on your core.

Or you could be lifting improperly at home where or work. So, if you're picking something up or even if you're just sweeping the floor, picking up something light, you can most certainly hurt your back that way. The most common cause of job, disability and missed workdays are back injuries more than anything else that you can imagine.

And the number one way of getting injured is what's called a transverse descent, which is basically leaning over to pick something up off the ground. Imagine hinging at the hip, so leaning over, not squatting, but leaning over. Pick something up off the ground while you're twisting. So, say using your right hand to pick up an object near your left foot.

And it could be light, it could be a penny. It doesn't really matter what it is. It's the motion of having your body weight, not balanced, away from your body with a weak core, which is going to impact your lower back or your lumbar spine. Now I attribute this to what I call "the American Decondition", and I talked about this in my first book called *BITE ME: Change Your Life One Bite at a Time*.

And the American Decondition I have coined because I view it as a slow degradation of our health, our functional movement and body composition--that is the makeup of lean mass and fat proportion--setting us up for disease, injury and chronic pain.

If you're a gym goer like I am, you may see many people focus on weight training for their extremities. They'll get, you know, defined arms defined shoulders. They'll like to pump up, make them look great, and they'll work on maybe their thighs or their glutes, and they do look good, but the problem is they don't have a strong foundation. They may have very underdeveloped core muscles. It's like building a stone castle on soft sand.

You have to have a strong foundation, a strong core to manage your day to day bodily movements without pain and without injury. And you can be a stronger individual, a better athlete, and help avoid any injury regardless of your condition. So right now, I just want you to think about where you are. I don't want you to be disillusioned or think that, "well, I'm not an athlete. I can't do this or I am so far, you know, away from having a strong core or being strong. That doesn't sound like something I can do", and believe me, you can. If you can just move yourself to, to A to B and walk. If you can sit on the floor, even if you can't, there are so many things that you can do to improve your condition. Right now, it is never, never too late for you to change that.

My experience is as an NASM CPT, which is the National Academy of Sports Medicine Certified Personal Trainer, nutrition and sports nutrition coach. Plus, I have my own experience of back injuries over a 40-year span. When I was in my twenties I was involved in a skydiving accident, actually landed going with the wind and hit twice as hard as I would have normally. All the practice that I did for a landing was not going to work for me. I broke my tailbone. I walked around in pain for over a year, and then after that, subsequently had many car accidents, which I either was not at fault or was a passenger. And over 40 years, I've developed degenerative disc disease. My lower spine is now bone on bone.

I've had many episodes of pain, sciatic pain, arthritis. It's no bueno, really! So, I understand. If you're in pain, I am right there with you. And I also, for over 12 years, I taught a low impact personal group

training program and it was three mornings a week and it was a lot of fun for an hour, and I taught my clients how they can become strong upper body strength, core strength.

And it was all no impact, low impact. Just not that long ago, one of my clients with lower back issues shared with me that she was able to actually go on to other programs and exercises on her own because she learned how to have a strong core in any situation. It was because of her time training with me where I taught her a few simple things where she can strengthen her core and get to a point where she knows how she needs to modify her exercises or her movements, exercises to strengthen the core, things to watch out for. When I hear stories like that, it just makes what I do so worthwhile. It is any way, but so much more worthwhile knowing that I can make a big impact on the quality of people's lives.

I am living through this with you and we'll share my combined training and my personal experiences. So, what makes up the core? What is it, and which muscles do you use? What makes a strong core? Your core is made up of muscle groups around your abdomen, and you can envision it like wearing a girdle around your waist.

And you have muscles in the front, you have muscles in the back and muscles on the side. And when these are all toned and working synergistically, you would be considered to have a strong core.

There are many muscles that stabilize your body, but the core stabilizers are really the primary ones we are going to focus on today because they have the most impact. They support your upper body. And if you can think of muscles that attach directly to the vertebrae, so your spine, which you know, I'm sure, is made up of vertebrae; your cervical spine, your thoracic spine in your lumbar spine, going from top to bottom. So, these core stabilizers, you can think about, they attach from vertebra to vertebra.

And they work together to support your upper body. Now these muscles, I'm going to tell you what they are. You may have heard of them. You may not. It's not super critical that you memorize them at all, but just so you know what we're talking about, we have the transverse abdominis, so these are muscles that run up and down on your front, your abdominals. Okay? Your obliques are on this side. You're multifidus. That is a set of layers that are in the deepest layers of the back. It's actually five layers deep, if you can believe it. Filling up the grooves on each side of your spine, and they're responsible for keeping your body upright. You also have, as part of your core, your pelvic floor muscles, which are in the lower part of your body and your diaphragm, which is on the upper part of your body.

You can think about the core, as just being a set of muscles that surround your spine. They keep your upper body upright, keep you stable, allow you to rotate, to bend a turn. But basically, these muscles have to be strong to protect your spine, especially your lower back. Okay, so your everyday activities, if you think about putting pressure on your spine, the different things that you do every day, will have

differing degrees that contribute to that disc compression. So by compression, it is weight that you might stack on your spine, or maybe your muscles are tight and it's pulling your spine together in a way that compresses the discs, which are that soft, spongy material that go in between each vertebrae that cushion it.

And those discs are also responsible for keeping space between the vertebrae. So, your nerves don't get pinched. I'm going to go through the different levels so you can compare what we're talking about to your everyday activities. All right? The first level and the least pressure on your back would be laying down and supinated.

So that means laying on your back, you're basically flat on your back. You could have a pillow under your knees, which is going to put the least amount of pressure on your spine. You've actually relieved the spine. There's no gravity, there's no body weight necessarily on it from standing or sitting, so that's the least pressure.

Also right around there, and it does put a little bit more pressure on your spine, is laying on your side and you could have a pillow between your knees and that helps keep your hips and your legs aligned so there's not undo twisting on your spine at all. So that does help.

The second level of pressure on your spine would be standing. The first one is basically laying down--the second one is standing--standing straight here, your body is stacked. You do have the weight of gravity that is pulling down on all your vertebrae from your cervical spine, right under your skull, all the way down to the base of your spine. So that does take some pressure.

And then there is sitting. So, when you're sitting all of your weight, uh, from sitting is really stacked on your spine and especially your lower back. And then this is where posture comes into play, is if you are not sitting properly, you can put a lot of undue stress on your lower back if you're leaning forward, if your head is jutted out.

Posture is super important. We'll get to that in a little bit. The third thing has to do with levering your weight. If you are standing, let's say, and you're throwing your body off center, so say you're standing and you're hinging at the hip leaning forward, you're going to put undue strain on your lower back.

Another one is standing and leaning forward to where you're kind of touching. Your hands are touching the floor. Your hips are not supported.

You're going to put even more strain on your back, laying on your back with your legs lifted. If you can imagine laying on your back and your legs are straight and you lift them at about 45 degrees, so it's not straight up.

But say go straight up and then about halfway down to the floor, that's going to give you that 45 degrees and the lower your heels get to the ground, the more strain you're going to have on your lower back.

Then beyond that, we get to standing and leaning forward with weight. You can imagine a weight training exercise like a good morning where you're standing and you have dumbbells or a barbell on your shoulders. And you lean over, all right, and your back is straight. And what is happening is the further forward you're going; the more strain is going on your lower back. So, this, I would say like the good morning would be a very advanced move for a person that is doing weight training. If you are, have having a weakened core, anytime that you have a weight and it is away from your body, it's going to be creating strain on your lower back.

Even if you're doing a kettlebell raise. You've got it down on the ground and you're swinging it up overhead. You really want your body to be straight up and down. Anytime you have that weight in front of you, even if you are straight, it's going to cause strain. So, I do want to caution you like there is a certain order to training your body and those are very advanced moves and they are advanced because they do put more pressure on your lower back if you are not ready for it.

Then the very top, is the sitting with weights. If you are sitting and you have weights on your shoulder or you are sitting and you've got say, dumbbells and you're doing bicep curls, that's going to put even more weight on your lower back.

The final one is walking. It's not as severe as sitting with weights or standing with weight away from you. Actually, walking is very good for you because while there is some pressure, the same pressure as standing, you are activating your muscles, you're improving your blood flow, and you're increasing the fluids in your discs just by virtue of moving.

It's so very important to keep good posture while you're walking. Be sure not to jut your chin out, like keep your shoulders back. Don't lean forward. Good posture is being upright. One way you could check your posture is to stand against a wall and you're going to be feeling your head, your shoulders, your glutes, and your heels pushed back up against the wall. Just gently, you're going to be touching it.

You take both of your arms and you extend them up overhead straight, and then you want to do kind of a snow angel thing on the wall. You're going to take your arms that are straight. You're going to let your little finger touch the wall as your arms sweep down to the sides. All right? You're going to take one step away from the wall and just keep walking, and that's good posture and it may feel foreign to you, but that is a posture that we should use for standing, for walking.

When we walk up hills though, our posture works a little differently and our body may want to compensate because most people, when they're walking up a hill--and that does create quite a bit of

strain on a lumbar spine--most people will lean over and they'll jut their chin out because they are trying to get up that hill. What has happening though is that their body is compensating because ideally your core should be tucked in. So, you want to bring in your abs, so your core feels nice and strong. And really when you're taking each step, you're engaging your major movers, which are your glutes and your hamstrings and your legs, but primarily those glutes are what is going to power you up that hill.

You just have to watch your form. If you do have any sort of injury or lower back strain right now, or if your back is feeling weak and it could go out, I would avoid hills entirely. I would just walk a flat until you can get through some exercises and build up your core strength so that you can do some of those other things comfortably, without injuring yourself.

When I was in my late thirties, I had just delivered our daughter. She was our, our fourth. We have a blended family, and whenever a woman delivers our, our core is very, very weak because if you think about it, the muscles, those abdominal muscles, they get stretched out and, and you know, quite a bit. And so, my abs were just super weak. And I remember catching a cold, unfortunately. And while I was holding my two-week-old, I sneezed and I blew out my back and I could just feel my whole body going. I had no control over. My, my back, my core, my spine. I fell to the floor.

But fortunately, and I think it was just maternal instinct, I had the wherewithal to gently place my little two-week-old daughter on the bed right before I hit the floor. So fortunately, I was close to it and she was on the bed safely, and I crawled to the phone on the nightstand after I could compose myself and called for help.

And for weeks I could barely walk. I couldn't stand up straight. I couldn't support my upper body and I was in bed for a week with a cooler with some yogurt in it and some water, and I just will never forget it because it was a pretty painful time. I went through physical therapy and it definitely helped me heal and get better and get over that hurdle, but I continued to have those back injuries over and over and over again.

I would walk and hit, perhaps, you know, of an uneven piece of pavement. And I would kind of catch my foot and trip, but I wouldn't actually fall. And I would jar my back over and over and over again, and it was just so painful. And I would have spasms where to the point where my back might spasm and it would actually tear some of those, those core muscles in the back.

It would just take a long time to recover. It took about 10 years, I think, before I decided to hire a personal trainer. I was in my late forties, around 48 and I just got so tired of, of being in pain and not feeling strong. I knew I needed to not just build my core but get my physique stronger and I just wanted to be, and I was very motivated to be, as strong as I could ever have been in my life. So, after about

three months of training, I started doing figure competitions and that training, I actually never felt so good in my entire life. The discs were supported, the spine was strong. I didn't have any nerve impingement. And the reason for this, I have built up my core so strong and my body says strong that it actually helped keep those vertebrae a little bit separated so I wasn't having nerve pain anymore. But then what happened is after I wrote my first book, I, it was called BITE ME! Change Your Life One Bite at a Time, I did a lot of sitting. It took about a year to write and I was still doing my training and still very fit, but because of the amount of sitting that I did, and I would sit for hours and I would still get up and move around.

But I think once you're predisposed to these issues, it just requires so much more care and nurturing. So that you can still stay strong. You know, if you don't use your muscles for four days, they'll start to atrophy. That is a fact!

It is much harder to keep muscle on if you are not using those muscles. I ended up getting a lot of nerve pain and just involuntary muscle twitching and both of my legs. My calves, my quads. So, I went for an MRI and I was completely shocked when that MRI showed just a fine dark line where my disc used to be between S1 and L5. It was really shocking and I knew I had, I had had a herniated disc in the past, but it had progressed to complete degeneration.

It was just one of those situations where I knew that I had to continue training, keeping my core strong that this was going to be a daily thing. This wasn't just going to be an every now and then or go to the gym three days a week. When you have an injury and even after you have recovered from it, you have to do these exercises like, like every day, and it doesn't take long to do them, but if you have not had an injury and you feel like your core might be weak, or if you feel like you're doing a lot of sitting, or if you feel like you may be becoming a little bit of deconditioned, I would really strongly encourage you to do just a few core exercises in the morning to keep you strong because prevention is the key here for sure!

I am going to share with you my top core morning exercise routine. It takes about 10 minutes, and this is the first step. If you look at personal training or you look at developing your body, there are about four phases of training. And the first one is stability. And the reason with that is you can't really build up external muscles and expect to be strong and expect to not get injured until you start with your stability exercises. And that starts with really good form. I use a drawing in maneuver, which what it does is you're basically, whether you're sitting, standing, doing exercises. You are making a very concerted effort to draw in or bring in your belly button towards your spine. So, you're contracting the rectus abdominis and all the muscles along the front there so that you feel more solid.

You're basically recruiting those core stabilizers. By drawing in the belly button toward the spine in you're keeping your spine neutral so you don't want to arch your back or slump over, but stay straight. If you're doing that, just standing right now, you can just stand, have that good posture that we've talked about before, and then draw in those abdominals, bring that belly button in.

And that is really good protective core posture.

I want to share with you my four-point core stabilization exercise program with you now, and this just takes 10 minutes. I do this every day and please don't laugh. This is called "The Rotisserie", and I call it a rotisserie because it works on all of the core muscle groups in one set of exercises [like you're on a spit].

All right? You're going to be doing some exercises and then you're going to rotate, do more exercises, rotate, while you're laying down. And the idea is that you start face down on the mat and then you rotate right with each exercise. So, the, by the time you get done, you have hit your entire core, the front, the side, the back, the side again, so that you will hit all these things and just be as strong as you can be.

All right, so here goes. You're ready? The first exercises is a plank, and these are basic exercises. Maybe you've done them before. But I would encourage you to do them and do them in good form and in the right way. On a mat, you are going to be on your tummy. You're going to balance on your forearms, so from your elbow to your wrist and then go up on your toes, you're going to keep your body flat like a plank.

I've had many, many people and have watched many of my clients and other people at the gym where they think they're doing a plank, in their mind or doing a plank, and they're not really doing a plank because either they are sagging, in which case it's putting strain on your lower spine, or they have their booty way up in the air, like toward the ceiling in which case they're not engaging their spine at all. When you have your booty up in the air and it might look a little bit more like a downward dog, so we're not going to do yoga here, that'd be great for another day. So, check your form in the mirror or have somebody else give you some input so you can lower raise your hips so you have a perfect straight body.

All right? When you're doing a plank, and when you keep your feet wide apart, that's going to give you an easier stance because it's a little bit more stable. If you want to step it up a little bit, walk your feet together or hop your feet together, it will seem like it's more of like a three-legged chair where you have two points of contact with the mat up front and just one in the back. It's both feet, but when they're together, it's acting like one point of contact, so it's going to be a little more difficult for you to keep that core stance. But if you can do that, that's great. If that's too challenging, there's a regression, which is just dropping to your knees and there is no shame in that.

You just start wherever you can where you're not going to hurt yourself. And then I would set time goals for yourself. I would start some of my clients at 15 second intervals, and that may not sound long, but if you haven't done this before. If you can actually start shaking pretty quickly. The longest time that one of my clients actually was able to hold a plank was about three minutes, and that was after working up

to it, and maybe it took her about a year, but it shows you how strong you can get if you just apply yourself a little bit after that. If you can hold it for 15 seconds, that will be a great start.

And then you're going to drop to the mat. You're going to rotate to the right. So now you're going to be on your left side, and we're going to do a side plank here. And if you haven't done one before, and even if you have, again, you know, proper form is really important. I'm going to go over what that looks like. You're going to be on your side, you're going to align your heels. Your knees, your hip, and your shoulder in a straight line, you're going to make sure that your elbow, your left elbow that is planted on the floor is directly under your shoulder. You don't want it forward. You don't want it up. It's going to put way too much strain on your shoulder. But you want this nice 90-degree line between your upper arm and the mat. At that point, once you know you're in alignment, you're going to lift your right hip toward the ceiling or up until you're in a side plank, very straight position.

And again, here you can look in the mirror, you can get input. Am I sagging? Am I up too high? Chances are you won't be up too high because it's a little harder of a position to hold, although it's not necessarily bad for you. At that point I would hold it for 15 seconds. Just start there and then drop.

You're going to rotate to the right, so now you are on your back. Okay. Here we are. We're going to go; we're going to do three different exercises. It's actually one, but just in slightly different positions. The first one will be a crunch. And for these crunches, especially if you have a bad back, you don't want to be doing full levers. You don't want to be doing anything that is going to strain your lower back. Just small crunches. It's a very small movement. What I'd recommend is you lay on the mat flat, you're going to bend your knees, your feet are going to be placed flat on the mat and nice, comfortable distance away from your booty there.

Okay. Once you're in that position, you're going to put your hands behind your head just to support your head. You don't need to lock your fingers and you're going to lift your shoulders off the mat. Now before you do that, there's a very important part of this that is going to protect your lower back. And as you're lying there, if you can feel underneath your lumbar spine, underneath your lower back, if you can slide your hand under there, is there a space there shouldn't be.

Okay, so if you're in proper form, your back should be flat to the ground. And not really rounding it. You're going to do that drawing in method of bringing in your belly button to your spine, and then you're going to feel all of that contract and you're going to push it down to the mat. All right? You don't need to push hard, just so it's in contact there, and now we'll give you a very stable place to start.

Then you can start your crunches, so when your hands are behind your head. Proper form is to lift your shoulders up off the ground. Some people will crane their heads, though they'll intertwine their fingers

behind their heads and to help them up. They typically will take their head and shove it forward, and that is so, so hard on your neck and on your cervical spine.

So, we don't want to do that. Well, we want to do is gently support the head. Because it can weigh a lot of weight, and if your neck isn't used to it, you might want that support. You're going to engage your core, lower back, flat to the ground, and you're just going to lift your shoulders up off the ground just by a couple of inches.

It doesn't take very much. You're going to bring it up, just contract and release it down gently and bring it up again. You're going to want to do 15 of those to start, and if you're doing it right. It may burn. You may be a bigger, a bigger muscular guy, but if your core is not strong and you're doing this the proper way, it could absolutely burn.

So just nice and slow and steady. You come down, you. Touch your shoulder blades back to the mat and then come up again, 15 times. Once that is done, we're going to hit the side muscles, those obliques that we were talking about, and you're going to be in the exact same position, but you're going to take your right leg and you're going to cross your ankle in front of your left knee, and that's going to put you in a number four position.

All right. So, once you are there, instead of coming straight up, lifting both of your shoulders and working your abdominals, you are going to work on the obliques a little bit and you're going to hit them pretty low. If your right ankle is crossed over your left knee, your left shoulder up and your elbow and try to touch that elbow to your knee.

Now it's not important to touch the knee. What is important as it, you keep your abdominals contracted, your core contracted your back flat and you're just going to lift your shoulder up and you are going to keep your chin pointed up. And not down to your chest. Okay. I'm looking down at myself like you can see me. I know you can't. So that is the right form. And if you could just do 10 do 10 it's more important to have the right form when you're starting than it is to crank out 20 of these. It's only good if you can do it right and you don't hurt yourself. So those are the crunches.

After that, we're going to rotate to the right, and now you're going to be on your right side, and we're going to do the same side plank as we did on the opposite side, but just on this side, of course. Make sure, again, you're in perfect alignment before you lift your hips off the ground. You'll want to make sure your heels, your knees, and your hips are perfectly straight and that your shoulder is in alignment with your hip.

And your head is in neutral. You're not looking down; you're not looking up. You're just in a very neutral spine before you lift up and make sure, again that your elbow is directly underneath your shoulder that is going to help you a lot. And you can hold it there for 15 seconds. Sometimes we would do dips and that's a progression.

And that is when you're in that position and you're holding it up, that you can dip your hip down and touch. The mat and bring it back up again to the count of 15 so you know, one, two, three till you hit 15 and then you can drop again. And I think what is really important with this is that you don't overdo it.

If you feel like even that is too much, no shame and just go off of your knees. You are going to regress this exercise by bringing your heels, uh, bending your legs to 90 degrees. You're going to bring your feet a little bit towards your booty and you're going to remove your feet out of the equation.

Okay? You're going to just focus on your knees, your hips, your shoulders, and make sure you're in perfect alignment and you can push yourself up that way as well. If that's hard and you're feeling wobbly, you can use hand and your arm that is on the opposite side of where you're bracing and just touch the mat and you can even push on it to keep your hip up, whatever it takes for you to do it as long as you're in good alignment.

So those are the four exercise that I call my rotisserie. I do them every morning. I'm getting more and more religious about it. Sometimes I might fall off if I'm taking a vacation or something. But I can totally feel it in my back. And in fact, it's, it's even more important to do when you're traveling because if you're sitting on a plane or you're sitting in a car or you're on a bus or wherever it is, you're going to be in situations where you're not quite as comfortable and have the access to what you might normally do. You might be sitting more or more confined or taking more time in those positions without as much variability in the sitting, standing, laying down, walking types of activities that you might normally, if you were at home.

Remember my core training, my core rotisserie, exercise and prevention is medicine! You have to use it or you'll lose it, and it doesn't take long, as I mentioned, and it's never too late to get strong to show up in this world as the positive, bright, and loving spirit that you are. If you have topics that you're interested in, note them down below here. Leave a message. I would love to know what's on your mind.

And what you would like me to talk about or share with you. I appreciate you being on this journey with me and I am sending you prayers, healthy healing, and love and hugs from me to you.

This wraps up part one. Listen to Episode 2, Part 2 and learn how to modify your exercises to reduce your lower back strain, my number one most effective stretch for the lower back and how to treat inflammation naturally.