

[Transcript] The Tim Ferriss Show / #685: Dr. Shirley Sahrmann — A Legendary PT Does a Deep Dive on Tim's Low-Back Issues, Teaches How to Unlearn Painful Patterns, Talks About Movement as Medicine (or Poison), and More

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This episode is brought to you by Element, spelled L-M-N-T.

What on earth is Element?

It is a delicious sugar-free electrolyte drink mix.

I've stocked up on boxes and boxes of this.

It was one of the first things that I bought

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when I saw COVID coming down the pike
and I usually use one to two per day.
Element is formulated to help anyone
with their electrolyte needs
and perfectly suited to folks following
a keto, low carb or paleo diet.
Or if you drink a ton of water
and you might not have the right balance,
that's often when I drink it.
Or if you're doing any type of endurance exercise,
mountain biking, et cetera, another application.
If you've ever struggled to feel good
on keto, low carb or paleo,
it's most likely because even if you're consciously
consuming electrolytes, you're just not getting enough.
And it relates to a bunch of stuff
like a hormone called aldosterone, blah, blah, blah.
When insulin is low, but suffice to say,
this is where element, again spelled L-M-N-T, can help.
My favorite flavor by far is citrus salt,
which is a side note you can also use
to make a kick ass no sugar margarita.
But for special occasions, obviously,
you're probably already familiar
with one of the names behind it, Rob Wolf,
R-O-B-B, Rob Wolf, who is a former research biochemist
and two time New York Times bestselling author
of the Paleo Solution and Wired to Eat.
Rob created element by scratching his own itch.
That's how it got started.
His Brazilian jujitsu coaches turned him
on to electrolytes as a performance enhancer.
Things clicked and bam, company was born.
So if you're on a low carb diet or fasting,
electrolytes play a key role in relieving hunger, cramps,
headaches, tiredness and dizziness.
Sugar, artificial ingredients, coloring,
all that's garbage, unneeded,
there's none of that in element.
And a lot of names you might recognize
are already using element.
It was recommended to be

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by one of my favorite athlete friends.
The three Navy SEAL teams as prescribed
by their master chief, Marine units, FBI sniper teams,
at least five NFL teams who have subscriptions.
They are the exclusive hydration partner
to team USA weightlifting and on and on.
You can try it risk-free.
If you don't like it, element will give you
your money back, no questions asked.
They have extremely low return rates.
Element came up with a very special offer
for you, my dear listeners.
For a limited time, you can claim a free element sample pack.
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an eight-count sample pack for just \$5.
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to claim your free eight-count sample pack.
One more time, that's drinkelement.com slash Tim
for this exclusive offer.
[Drinkelement.com](https://drinkelement.com) slash Tim.
Check it out.
Optimal minimal.
At this altitude, I can run flat out
for a half mile before my hands start shaking.
Can I also request a question?
No, I don't see it in a perfect time.
What if I could be out of this?
I'm a cybernetic organism living this year
over a metal endoskeleton.
Me, Tim, Ferris, show.
Hello, boys and girls, ladies and germs.
This is Tim Ferriss, and welcome to another episode
of The Tim Ferriss Show, where it is my job
to deconstruct world-class performers
from all different disciplines.
My guest today is Shirley A. Sarman, PTPHD.
But before we get to her bio, let me just explain.
Shirley is a legend in the physical therapy world.
She has influenced some of the top performance coaches
in the world.

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She's also 85 years old, going on 86,
and is not only razor sharp mentally,
but in excellent shape physically.

So she walks the walk.

So let me get to the bio,

and I will also give you a bit of 101

on some of the terms that we'll use in the conversation.

Shirley A. Sarman, PTPHD, is professor emerita
of physical therapy at Washington University School
of Medicine in St. Louis, Missouri.

She received her bachelor's degree in physical therapy
and her master's and doctorate degrees
in neurobiology from Washington University,
where she joined the physical therapy faculty
and became the first director of their PhD program
in movement science.

Shirley, and she asked me to call her Shirley,

became a Catherine Worthingham Fellow

of the American Physical Therapy Association in 1986,

and in 1998 was selected to receive

the Mary McMillan Award, the association's highest honor.

She has also received Washington University's

Distinguished Faculty Award, the Distinguished Alumni Award,

the School of Medicine's inaugural

Distinguished Clinician Award,

and an honorary doctorate from the University of Indianapolis.

She has received as well the Bowling-Earthheart

Orthopedic Clinical Practice Award

from the Orthopedic Academy of the APTA.

She has served on the APTA Board of Directors

and as president of the Missouri Chapter.

Her books are iconic.

They have been the initial domino

that has toppled over, so to speak,

the enthusiasm, the ignition for many people

to get into the field of movement science

and physical therapy and performance coaching.

Her first book, Diagnosis and Treatment

of Movement Impairment Syndrome,

you may have heard Eric Cressy mention this,

it was a hugely influential book for him,

has been translated into seven languages.

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Her second book, Movement System Impairment Syndrome of the Cervical and Thoracic Spines and the Extremities, has been equally influential in promoting movement diagnoses.

And in this episode, we do a deep dive on low back pain, and that is something that for the first time, really, I have been struggling with for the last, let's just call it nine months or so, it could be a bit longer.

And we do get into the weeds with regard to anatomy, particularly as it relates to the back stuff that I mentioned.

So I'd like to go over a few terms before we start the interview, so you don't have to wonder what they are and feel like you need to pause to look them up.

You can get through the interview without listening to my definitions, but some of them might be helpful.

Also, if you're a kinesiologist or professional, please excuse these very simplistic and possibly slightly off definitions, but they'll help a lot of people.

So the first one is the Iliac Crest, what is that? That's the uppermost border of your pelvic girdle.

So you can think of the pelvic girdle as that large bony ball that you see in the middle of a skeleton, hanging in a science classroom or something.

You can feel your Iliac Crest if you press your thumb into the top of your hip.

That sort of bony ridge is your Iliac Crest.

The TensorFlow Latte, and I've heard many different pronunciations of this.

And the fact of the matter is no one really speaks Latin correctly because we don't know if it was, you know, veni, veidi, vicci,

or veni, veidi, vicci, for those who get that reference.

I came, I saw, I conquered.

So anyway, it is better known

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and abbreviated as the TFL for a lot of people.
So the TFL is a muscle at the outside,
a very outside portion of the thigh at the very top.
So you could think of it also,
people think of it as a hip muscle sometimes.
You use it to balance your pelvis when standing,
walking or running.
If you ever give someone a piggyback ride
and a muscle gets super sore on the side of your hip,
that is probably at least including the TFL.
You also use the TFL for abducting your hip
or pulling it away from the midline of your body
compared to adducting with 2Ds,
which would be pulling it toward the midline.
One way that I remember that, abduction,
it's like an alien abduction taking you away.
So moving the, say, leg away from body abducting,
bringing the thigh in, adduction.
So like an adductor machine at a gym,
one of those Susan Summers thigh master type machines
would be that.
We also talk about muscles that assist in lateral rotation.
Lateral rotation is rotating away from the center
of the body, medial rotation is rotating towards the center.
So imagine if you turned your feet outwards
to look like you were duck footed,
that would be lateral rotation out to the sides.
And then if you turn them inward to be pigeon toad,
that would be medial rotation of both femurs inward.
All right, psoas major.
I also mentioned psoas major.
That's spelled P-S-O-A-S major.
That is a large muscle that joins the upper
and lower parts of the body.
And it also contributes to a lot of lower back pain.
It connects to the inside of the lower back.
And if you were to take, say, your four fingers
and move them four inches to either side of your navel
and then press in, say, four inches,
that would probably touch your psoas major,
which is why massage therapy that addresses it
can be so uncomfortable.

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For you chefs out there or hunters
or people who might recognize this,
this would be the equivalent of your tenderloin.
So if you're wondering what a tenderloin is,
it is this muscle in many animals.
And there may be other ways to use that butchering term.
But psoas major, tenderloin, there you have it,
used mostly for posture and so on.
We also get into stenosis, as it relates to my spine.
So stenosis is an abnormal narrowing.
And I have some stenosis around L4, L5,
which is the lumbar spine or lower spine,
which puts pressure on some nerves there
and causes all sorts of pain.
The thoracic spine is more of, say, the middle of the back
and you just think between the shoulder blades
for simplicity.
Okay, last hand, I could say not least, but who knows?
These are all kind of equivalent and useful.
You have supine versus prone positions.
Supine is lying on your back,
prone is lying on your stomach.
If you've ever wondered what a supinated grip is
or a pronated grip, supinated is palm up.
And you can remember that because if you wanna
pour soup into your hand, you have your palm up.
Okay, so that is supine.
And honestly, learning the basics of anatomy
and the basics of some medical terminology
is I think one of the best, absolute best investments
you can make in your health,
because then you can talk the talk with professionals
and they take you more seriously.
They give you better advice.
They give you the straight scoop.
So this is all a very good investment of time.
You can find a glossary of these terms
and more in the show notes for this episode at tim.blog.
And I do wanna mention one other thing.
If you want an incredible rotating view
of different muscles like the QL,
we talk about the quadratus lumborum.

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That's sort of this squarish, rectangular muscle in the lower back area that is sort of the grand central station of all sorts of things.

If you wanna see anything, the SOAS major, check out the Essential Anatomy 5 app for iOS and Android.

And you can see all of this.

You can also see the circulatory system and all sorts of other things.

It's a great app, really enjoyed it.

And there are short YouTube tutorials that I recommend taking a look at if you end up downloading it.

And that was referred to me by professional drummer, Dave Elich, who helps people improve their mechanics, technique and much more.

And there you have it.

So if you want a video to go with this, I did record a video of this conversation and I get up and walk around and she does an assessment with me live.

You can go to my YouTube channel, youtube.com slash timfarris2rs2s and that will have some helpful graphics and so on overlaid into the video.

Okay, that's quite a bit guys, but I think it is a helpful prelude.

And now without further ado, please enjoy this wide range in conversation with Dr. Shirley Sarman.

Dr. Sarman, Shirley, welcome to the show.

It's so nice to have you with me today and I can't wait to ask a whole host of different questions.

So thank you for making the time.

My pleasure.

And I'd like to begin perhaps with the connective tissue that led to you being on the show today, which is a friend of mine and a well-known, suppose the label performance coach could be applied, he also has a background in physical therapy, Eric Cressy, he works with many major league baseball players, has a high degree of success with pitchers specifically, but he has written and he also mentioned to me

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that diagnosis and treatment of movement impairment syndromes is probably the book, and I'm quoting him here, is probably the book that has influenced me more than any other in my career. It's worth every penny. I'm curious why it is that this book seems to have been so revolutionary for him and many others. What would you say explains that or differentiates that book? The one big objective in it, I've actually been a physical therapist for over 60 years. And during all of that time, I've been through different eras of changes in physical therapy. And where I sort of gotten to and is how movement basically induces pathology. And part of that, trying to explain that and how it works, is also developing diagnostic categories that direct physical therapy treatment. So what this book was about was a first attempt to really put together diagnostic categories that are based on movement and movement as an inducer of musculoskeletal problems. Also kind of working on the background of what are the tissue adaptations that contribute to this. So it really was an organizational attempt to identify for in the first book, we covered the back and the shoulder and the hip. And so I guess the shoulder is one of the things that he must have been particularly interested in if he's dealing with pitchers. And the shoulder is really quite complex because you've got that shoulder blade as well as the glenohumeral joint. And it's not as easy as muscles just turn on or turn off appropriately. They've got to really be well coordinated. So I think that putting together this kind of information in a way that could be understood by a whole variety of people. In fact, I was so slow in getting it out that I was grateful that there was the internet

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and Amazon selling things
because it would have only been sold in medical bookstores.
No one like Eric would have ever found it.
So that was one of the advantages of being a slow writer.
And of course I learned more
while all of that was happening too.
How did that attempt or maybe not attempt,
how did that organizational approach
and also the maybe reframing of movement
in the way that you just described
differ from what came before
or what was predominant at the time?
To be perfectly honest with you, Tim,
it's not like this insight has been taken over
by even the large majority of the people in my profession.
It's still a bit of a struggle
to have people move in this direction
for a whole variety of reasons.
But typically, and even though I wasn't there
when physical therapy was first started,
I wasn't too far behind.
But typically the role of the physical therapist
was the doctor figured out what the problem was,
made the diagnosis,
and the physical therapist really provided treatment
for what I think could fairly be called the symptoms
or the consequences of that problem.
In fact, I am old enough
that I actually saw polio patients.
The vaccine had just come out
about when I was entering physical therapy school.
So we had a role in providing the therapy
for the doctor's identified condition.
And that's very different than what I'm proposing
or have proposed with this book.
And I think the other thing that's so important
about all this, and I'm sure you are a reflection of this,
is in the old days,
no one thought lifestyle had anything to do with your health.
I always like to point out this story.
My family cooked with so much Crisco.
I don't know how my blood flows.

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And if the green beans were too healthy,
we had bacon grease to put on them.
But I was very fortunate.
I worked with a physician for a while
who was really leading the way
and showing about the role of exercise and nutrition.
He did what this really called translational research,
showing the cellular changes in animals
and then also running studies in older people.
And it was like an amazing insight for me
to realize that your lifestyle had something to do with it.
So I think that's behind what's slowly emerging
as seeing movement play a different role.
It's, I think what I'm like to get across to people,
it's not inevitable what's gonna happen to you,
that you can do things via lifestyle
to improve what your outcome's gonna be.
I would love to come back to,
I believe, and I don't wanna misquote you,
but something you said,
which is the treatment of symptoms.
So many offices are treating symptoms,
perhaps not root causes.
And I have read,
and you can't believe everything you read on the internet,
so please correct me if I'm getting this wrong,
but that you've-
I said a new saying.
But yeah, that you've described low back pain
as not a diagnosis, but a symptom.
And could you just speak to that?
Because as someone who currently,
for the last maybe six to nine months,
has had a very perplexing constellation of symptoms
that I describe as low back pain,
this, I think, will resonate
with many people who are listening.
So would you mind elaborating on low back pain
as a symptom and not a diagnosis?
Well, I mean, just what you're saying.
You're saying it's low back pain.
You're just telling me that you've got pain

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and you're telling me where you've got pain.

That is clearly a symptom.

Yeah, right.

I am from Long Island,

so sometimes I ask the silliest of questions,

but I'm gonna start with the basics.

Well, the nice part is you can actually get reimbursed

for making that big, clever diagnosis,

so even without an MD degree.

But where I would be looking at that problem,

and I have an idea of what your problem is.

Wow, okay, already.

Just because we can talk about that.

I mean, I don't want to sound too glib about it,

but what I would be doing is naming your low back pain

by the movement that most consistently causes your symptoms

and by changing that movement,

reduces or eliminates your symptoms.

Then I'm talking to you about the real cause of the problem.

Now, it's not going down to the tissue level

and saying, well, it's a disc or a facet joint

and you're the rest of it,

but here again, in some ways,

when you have a problem like that,

you can't say in the back that one tissue is at fault

because a lot of tissues have to change

if you're having pain coming from your back region.

So the expertise of a physical therapist needs to be,

what is the movement that's either causing

or exacerbating that problem?

So I'm curious to, well, maybe we can dive into you said

that you thought you might know what my issue is.

That's because I know you're a big exerciser.

I guess, yes, indeed.

And do you want me to just give you a ballpark idea?

I do, absolutely.

Well, because would you believe that abdominals

can get to be too much like overdeveloped?

I, you know, it makes some intuitive sense,

but it's not something you hear many people talking about.

I know, I know.

Even within the community of physical therapists,

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people are really exercising big time.
I mean, high intensity exercise is super popular.
I'm all for it because it'll increase our patient load.
But one of the things that happens
when your abdominals are overdeveloped
because what happens when muscles hypertrophy,
they become stiffer and muscles are like springs.
So they have a, I mean,
I'm using the mechanical word of stiffness.
And so when the abdominals get to be too much,
they increase the compression on your spine.
And so the way you can check me out on this is
if you look to see, if you take a deep breath,
if you go from maximum exhalation to maximum inhalation,
you should be able to change the circumference
of your rib cage about two and a half to three inches.
And if you can't really do that,
then it means that the stiffness
of your abdominal muscles is so much,
it's adding to the compression.
And then if you have any kind of asymmetry,
for example, if you put your hands on your iliac crest
and one iliac crest is slightly higher than the other,
then basically your spine is in a side bend.
And if it's in a side bend
and you're squeezing on your vertebrae,
they're not happy because they aren't lined up
as optimally as possible.
Do you see what I mean?
I do, absolutely.
Okay, so that's the ballpark idea.
That also reflects how we're looking at these problems.
What is it about the way you move?
What is it about the way you've exercised or done things
that cause the symptoms?
I would love to spend more time on this selfishly, of course,
because the reason I am sitting
and not standing for this interview
is because of this lower back pain.
So it's worse when you're standing than when you're sitting?
It is worse when I am standing.
Now, I do have, I guess,

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what we can jump right into the weeds.
I have a transitional segment
if I'm using the right terminology in my lumbar.
So I do have quite a bit of excessive lower back sway
or atypical lower back sway.
When you say sway, do you mean an increased curve?
Increased curve, yeah, like lordosis
and kind of guts hanging out.
And with that anterior pelvic tilt, right?
Standing and slow walking, say walking through a museum,
tend to aggravate it the most.
My brother has the same thing,
although in the last six months or so,
when I sit on a very hard surface,
like a hard bench or something like that,
it also causes this pain.
I have had imaging,
but maybe we could talk about imaging,
how you see some people who look like
they've gone through a mulcher on their back MRI,
but they're asymptomatic and then you have the opposite.
That's the whole point.
So I do have some stenosis around like L4, L5,
but the pain feels to me localized around the SI joint.
The relief, if this is helpful,
I know we're getting a little technical for some folks,
but the relief that I've had in the last week
was actually from seeing a chiropractor.
There's a high degree of variability with chiropractors,
but he works with a lot of athletes
and he put me on a machine that provided some traction.
And he said, I think it's actually
that you may have a disc pressing on a nerve
that runs past the SI joint,
so you're misattributing the cause to the SI.
And I've had quite a bit of relief,
but to answer your question,
standing, slow walking, combined with standing,
like going through a museum or a cocktail party,
sitting on hard surfaces,
those are the three things that hurt.
Brisk walking does not hurt.

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And actually that type of,
and this is a primitive interpretation,
but sort of repeated stretching of the hip flexors
if I'm getting enough terminal hip extension
feels really good to the back.
Those are a few of the things.
Have you put your hands on your pelvis
to see when you're walking, if it rotates?
I have not.
I would love to know how to do that properly.
It's not rocket science.
You know where your pelvis is,
you know where your hands are.
Just because very often when your hip flexors
are not even just not short to stiff,
stiffer than your back, as you walk,
it rotates your pelvis
and that's where you're gonna be getting your symptoms from.
And evidently when you go fast enough,
you're not staying static
and you're causing enough equal movement,
but that would be the big thing.
Can when you stand up and you're in this anterior tilt,
can you contract your abdominals enough
to get out of the tilt?
I can, yeah.
And then does that decrease your symptoms?
It does decrease my symptoms.
So if my back is bothering me,
I'll vary off and do basically a forward fold
or a full squat and then round my back
and get into that flexed position.
The flexed position and even mild extension
does not bother the back.
If I do a compression test like a heel drop test
or I pull myself into a chair,
it's standing straight up and with compression
that shows that type of intolerance
and I get that pain kind of directly on the lower spine.
The other thing to try Tim is when you stand up,
put your feet apart,
separate them out and see if that changes your symptoms.

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What is that doing?

Number one is this little thing I referred to before.

If one iliac crest is higher than another

and it's a test for what we call relative stiffness.

So one of the big hip flexor that's problematic

is called the tensor fascialata iliotibial band.

And it's an abductor.

So if you put your feet apart,

so your hips are abducted,

it takes the stretch off of that band.

And any kind of asymmetry that you would have,

particularly with the transition vertebrae,

would be playing into the symptoms.

Do you see what I mean?

I do.

And then if you put them together

and your symptoms increase,

then you would know that that's what's playing a role

in doing this.

So I'll add a few more things

just because this is a rare opportunity

to get to talk with you about this.

So my TFL tends to be very tight and sensitive.

Yeah, that's right, yeah.

The piriform is also very tight.

Piece of this that may or may not be helpful,

but what gives my back also some release

is working on the, very specifically,

the iliacus and then some of the adductors.

So on the inside of the thigh.

No, I don't know how you do that.

Tell me what that means.

Well, having someone really dig into the abdomen

to have me say, extend the leg.

Oh, almost like.

It's not you working on it, somebody else's working on it.

No, it's somebody else working on it.

And then it's not very pleasant

for people who are listening.

And then some of my adductors,

I don't know if it's Magnus, Longus or whatever,

but also very tight and seemingly potentially weak.

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But to come back to the height,
maybe the asymmetry of the iliac crest,
my right side seems to get hiked up a lot
and doing wall sits to try to press them,
maybe back into some symmetry,
seems to alleviate some of the symptoms as well.
I don't know if any of this makes any sense.
You've just confirmed one of my thoughts
is that if your right iliac crest is higher than your left,
but then I would also bet that your right TFL
is stiffer than your left.
So if that's playing a role,
then when you put your feet apart,
your iliac crest should level out
that should help with your symptoms.
So historically, when I've been recording podcasts,
I basically end up in that really wide stance.
And so I think I'm confident.
Now, is that, I mean, that's useful
for maybe temporarily relieving the symptoms
if I'm recording a podcast in terms of corrective measures.
Let's just say using your-
Have you ever tried anything
where you're in the quadruped position?
I have actually, a long time ago,
I did a lot of movement in quadruped position,
but I would be curious to hear what you have in mind.
Part of what happens when one iliac crest
stays higher than another.
And I'm not, to be perfectly honest with you,
I haven't quite figured it all out yet,
but there's some adaptation of the other hip muscles.
And I've just found that if you do this in quadruped,
you just rock back.
Often it will improve the asymmetry.
So basically being on hands and knees?
Right, and let your hips drop to about 90 degrees.
You don't have to go back all the way.
You just need to go back a little bit
and go back by easily pushing with your hands.
Because otherwise, if you activate your hip flexors,
it could contribute to your problems.

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Right, okay.

And then can you tolerate prone?

Yeah, I can tolerate prone.

And then you need to just do like, just flex your knee.

And then you need to laterally rotate your hip.

So you're letting your knee flex to 90 degrees
and then let your foot go in towards the other leg.

That's lateral rotation.

And that kind of motion will help
to elongate the TFL, ITD.

Interesting, and you're doing that leg by leg.

The, you-

Yeah, yeah, one leg at a time.

One leg at a time.

Okay.

Yeah, yeah, yeah, do everything by,
bilaterally, yeah.

Okay, very interesting.

So you can try those things and let me know.

I will, I will do, I will do both of those.

If we zoom out just for a moment,
and thank you for that, by the way, we may come back to it.

How would you describe the movement systems
syndrome's approach, so the MSS approach?

What would the sort of lay description of that be?

In 2013, the American Physical Therapy Association
adopted the movement system as its identity.

And to me, what's really important about all of this is
that it's a way of trying to say to the public
that there is a body system called the movement system.

And it's not like the traditional anatomically
defined systems like the cardiovascular system
or the musculoskeletal system or the nervous system.

It's a system of systems.

But that's just like, in my mind, the immune system,
which nothing is more important in medicine these days
than the immune system.

And it's a system of system.

It uses many of the different organs in its function.

Metabolic system is the same way.

And so when you think of it as running from
subcellular all the way up to how do you move

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in your environment, movement is critical.
When movement stops, everything stops.
And so I think in some ways, to me,
it's like a parallel to the nutrition system
because we take for granted doing it.
And yet there's right ways and they're wrong ways.
And so the whole idea of this is to realize
that their movement does involve a system.
And just like we were talking about before,
movement, if you have a lesion in a system,
like you have rheumatoid arthritis or something,
or you have a stroke,
then you've got pathology in your movement.
But as I indicated, movement can also induce pathology.
In fact, we know if people don't move enough,
they develop the metabolic syndrome
and other kinds of things because for lack of movement.
So how important it is to move,
this is related to the lifestyle issue.
And doing it right.
One of the things I always loved doing with patients
was saying, so who taught you to walk?
And they say, nobody.
And I say, that's the problem.
Just because you're doing it doesn't mean
you're doing it right.
You're just doing it.
Just like you, if you're walking
and you're getting lumbopelvic rotation,
that's playing into your problem.
And also, if I don't have,
which I don't think I do,
this is one pattern of diagnosis with me
that I think is accurate,
that I don't have much terminal hip extension.
So when I walk, I'm using my lower back
to fake hip extension.
Yeah.
See, that's what I'm saying.
And you really can't do that.
I mean, there's no way you won't keep injuring your back
if you keep walking like that.

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And how do you repattern
or help people to adopt
so that they can use it subconsciously
in new motor patterns or new movement patterns?
Because I've been doing this for God knows how many decades.
Well, not that many.
You don't look that old.
Thank you.
Thank you.
I appreciate that.
My new best friend.
And how do you help patients to get to that point
where they've changed something as fundamental
as how they walk?
In my mind, it's twofold.
In one, we know it takes a while.
It's just like if you're learning a sport
or you're learning to do anything,
it takes time and it takes attention
and it takes specificity.
And so one is just like we're talking about with you.
What are the most important kinds of exercises?
What are the issues that are an impediment
to doing it the way you should do it?
What are specific exercises that can help you
and minimize those?
And then what's really important
is showing you in your everyday activities
what you should do.
For example, if you already know
that your hip flexors,
you're calling it the iliacus,
is problematic, then even when you're sitting,
making sure you're not pulling with your hip flexors
to stay forward when you're sitting.
Yeah, I'm probably doing that right now.
I know.
I've been watching you.
It's how you even roll over or get out of bed.
We go through every one of these things
teaching you in your everyday activities
so that it does become automatic.

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But it obviously takes participation
on the patients or the subjects part as well to learn it.
And then you know it's gonna take time.
I think it's important for people to realize
they can't just do 10 repetitions
or three sets of an exercise
and then they're gonna move differently.
I think that's been part of what's been picked up
in my book is that you have to bring people along,
show them how to do that
and that exercise won't change the way you move.
You have to change the way you move
and that can improve how muscles function.
You mentioned the psoas.
I'd actually like to come back to the psoas.
In my particular case,
because I have been an aggressive athlete
or was for several decades
and accrued an impressive number of fractures
and surgeries and so on.
I get manual, yo, yeah.
So I get manual therapy once a week.
Some type of soft tissue treatment.
And what I found for me personally
is it seems like psoas major and so on.
When someone does a manual release
for whatever reason, when they get sort of inside
that pelvis a bit more to what I've been told
is the iliacus, that's when I feel
the most symptomatic relief for my back.
But the psoas seems to hold some importance.
I don't know if you could speak to that,
but in terms of the role of psoas overactivity
as it relates to back pain,
is that something that you still feel
is something people pay too little attention to?
I don't think it's always the cause,
but it can certainly be an exacerbator
because the psoas attaches to the lumbar vertebrae
and it also attaches to the intervertebral disc.
It's a muscle that's constantly pulling on your back
and pulling it in sort of a translation motion.

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Iliacus is attached to your pelvis.
So it's not directly acting on the vertebrae
the same way that the psoas is.
In fact, people that truly have a herniated disc
and they're in that acute phase,
I try to have them do nothing with their ilioas.
If they wanna lift their leg up,
use your hand to lift your leg up
to put your shoes on or to cross your legs
or get into the car or something
if you're sitting down already.
So you minimize that use.
And just like we were talking about in quadruped,
if you are in quadruped and you wanna rock back,
you will probably use the psoas to do it.
And that's why I suggested to you to push with your hands
so you go back and you don't use that muscle.
Well, these are small samples of what I'm talking about
as far as identifying what are the factors
that are contributing
and how do you change that in your everyday activities?
Yeah, what would be some other repeating culprits
that you see?
Let's just say someone has the symptom of low back pain.
You take them through an assessment
or identify that they have an overactive psoas.
What might be some other low hanging fruit
with respect to helping them to identify common patterns
or positions that contribute to that overactivity?
In some ways, I would be looking more specifically
at which particular movements do it.
And then try to identify.
For example, it would be hard for me to believe this,
but if you're hip flexors and it makes a difference,
like the tensor fascialata is a hip flexor,
but it has a rotational component
that's much stronger than the psoas does.
The psoas has more anterior pull.
The tensor fascialata is gonna pull more on the pelvis.
And I will tell you that in my judgment,
and I don't think I'm way off on this,
at least 70% of the people with back pain,

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it's because their hips not moving optimally.
And you said it yourself, my hip is not moving
and then it bothers my back.
Well, that's exactly what goes on.
And it doesn't take some big structural fault
to have that just a difference in the passive tension.
So usually with younger people,
if I'm gonna generalize about back pain,
it's related to their spine flexing
because when you're younger, you're more flexible.
And I think the other thing that's tied to that
while we're talking about the hip
is they're identifying more and more that hips,
what they call thermal acetabular impingement,
hips aren't flexing as much.
There's structural changes going on.
So if your hip only flexes 90 degrees,
then you wanna bend over,
you're gonna do it much more in your back
because your hip's not doing it.
So I wanna know all the things that relate to flexion.
In the older person,
then it's more related to extension,
just like the stenosis thing.
Stenosis is that's when you really can't extend.
That's why you see old people walking bent over
why they need a walker when they're bending over.
And then the element of rotation.
And because it's not just,
is it one iliopsoas that's problematic
or both of them,
one tensor that's pulling more strongly than the other.
And that's the passive tension,
not just the active tension.
And that's what you have to know.
Just a quick thanks to one of our sponsors
and we'll be right back to the show.
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Check it out.

Now you were asking about my breathing

and the deep breath.

When I met with Eric,

and I could be totally screwing up this terminology,

so you may need to rain me in,

but he had me take off my shirt and I think it was,

I had a very low, it might be high, but infraternal angle.

So I have a bit of a depression in the chest.

I have a very minimal ability to expand my ribcage.

I'm a belly breather and I've had a number of people note

that it's likely when I breathe,

I kind of rotate my entire ribcage backwards,

which also causes that excessive,

exactly that excessive hinging at the lumbar.

What do you do with somebody

who's got this type of predicament or pattern?

Usually, as I was saying before,

if your ribcage doesn't expand,

then it's often because your abdominals are too tight.

And so one of the ways is to elongate them.

So arms up over your head and taking a deep breath.

And just, you probably know that with breathing,

you've got two modes of movement.

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One they call pump handle and the other is a bucket handle.

I'd love for you to elaborate on that, yeah.

Okay, well, pump handle means the front of your chest,

your sternum is going up like a pump.

And bucket handle is like the sides expand.

And so with arms up overhead,

you want to really think about lifting your chest

as well as pushing your ribcage out.

Laterally, you mean?

Yeah, laterally, like it's all going up.

And then, yeah, yeah, can you do that?

Can you take?

Yeah, it's sad.

Yeah, I don't have much.

It doesn't do much.

Yeah, I know.

As it stands right now, yeah.

That's what you need to do.

And then here's the other thing,

that if you stand with your back against the wall

and then you try to do a side bend, but, but, but,

you want to make sure the side bend,

you're moving through that the axis of rotations

through your chest, not in your lumbar spine.

Yeah, I make my symptoms worse.

And you want to be sure, Tim,

that you don't just pull yourself over.

You want to try to fall like you've got a heavy elbow.

In other words, don't contract the muscles on the same side,

but try to get these to elongate.

So like you're falling over more passive elongation

rather than an active contraction.

Now you're not going to go real far initially,

unless you've got a really heavy elbow.

Yeah.

So the axis of rotation should be,

or the middle of your chest.

Or the fulcrum should be the middle of the chest.

Yeah, right.

And don't, I always like to say,

I don't care how far you go, I care how you get there.

And so don't push it for big range

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and just make sure you're not moving your lumbar spine
and that you're doing your thoracic spine.

And are you breathing in those positions
or it's just stretching your intercostals
or what is the objective of the side bend?

The objective is to elongate those abdominals
that are not letting you.

Oh, I see.

The other thing is just even when you were doing this,
you don't have any symptoms at all
when you're sitting there right now.

I have a little tightness in my low back.

I am sitting in a chair with lumbar support.

Why do you do that when you have too much lumbar curve anyway?

Well, because I've noticed that for whatever reason,
symptomatically, I get relief with a small amount
of lumbar support.

If it's a flat back chair
and I end up kind of falling forward
and flattening my back,
it ends up hurting me much more later.

Yeah, because you're getting a translation motion.

But okay, what if you put your arms up over your head
and take a deep breath?

Does that decrease your symptoms at all?

I would say doesn't noticeably,

I don't have any severe symptoms right this instant,
but doesn't worsen it for sure.

But it doesn't make it any better either.

It might lessen it slightly.

The degree of pain right now I would say is pretty low,
so it's hard for me to monitor.

And again, if you look at it from the standpoint,
the more you move someplace else besides your back,
the better off you're gonna be.

Yeah, definitely.

That's part of the whole strategy is make sure,
because usually the problem is that motion
that's problematic is occurring
during all of your activities.

The body follows the rules of physics.

It takes the path of least resistance.

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So if it's easy to move there, it keeps moving there.

And that's what you're trying to change
to make it easier to move at other places
where you should be moving more.

This seems to me to be very, very, very important.

So would you mind just saying that again,
just reiterating that the body follows
the path of least resistance?

So if you have a worn groove,
you have to, in its leading to pathology,
you need to sort of grease a different groove.
Could you just speak to that because it strikes me?

You're doing a beautiful job yourself.

I don't think you need me.

Well, you know, I'm great at pontificating.

I just need to change my movements.

Okay.

Father's superior.

No, I just, you know, I talk a good game.

I just have to fix my movement that is in my breathing.

But I like how you phrase it.

I mean, the body is going to take the path
of least resistance.

That's it, exactly.

I'm gonna follow these exercises.

I will do, I'll experiment with the elongation.

I want it to add one more data point,

which is if I do, for instance,

Pilates classes with someone who's very technical,

if I'm in that flexed position,

which tends to be more comfortable for my back,

if I'm experiencing a lot of symptoms.

You tell me, are you supine?

I am supine, yes.

Okay, you're supine.

Yep.

And then what are you gonna do?

Well, if I'm doing basically what I'm trying to sort out
for myself is if the overly contracted abdominal resting state
can contribute to the symptoms of experiencing,
what I've also experienced is if I do a workout
that seems to be focused or is focused

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on a lot of core musculature and pelvis work and so on,
that my low back doesn't bother me
for a few hours after that workout.
And I don't know how to interpret that.
Maybe these things are not at odds.
Maybe they can both be true for different reasons.
Well, I mean, it depends what your workout is.
What would be bad in the long run
is if you're doing a lot of holding your legs up
and moving those around while you're supine.
Because again, you're gonna be using your ilioas
and it's gonna be pulling on your back.
The big thing is for you to be able to contract,
I'm getting the picture from you that I didn't have before
that here you are with an increased lumbar curve
and that your lower abdominals aren't as taught.
In lower abdominals, I mean external obliques,
not just the ones that are lower.
And when you contract those muscles
that they tend to flatten your back
and decrease your symptoms.
Yes.
And so that would be to me what the advantage is
when you're supine and starting to do the exercise.
What would be not the long run good
is if you're holding your legs up
and trying to do something with your legs
while you're holding that position
because you're building in too much activity
from the ilioas.
So if anything in that position,
I would just have you slide your leg down
and try to keep your pelvis from tilting.
Put your hands on your,
I'm sure you probably know what ASISs are,
anterior superior iliac spine.
I do on the front of the hip.
That's what I thought.
Yeah, yeah.
And just make sure they don't tilt.
For people who are wondering,
could you just describe what that is?

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It's a little bony prominence
on the front of your pelvis
and some of your major hip flexors attached there.
But it's also an indication
of what your pelvis is doing
as far as tilting forward or tilting backward.
And in your case, what you wanna do
is not have it tilt forward.
So the importance of that exercise would be
that you can move your legs
without your pelvis tilting anteriorly.
I wouldn't put a big load on them.
I would only have them slide down
like you're sliding your heel along the supporting surface.
Get it all the way down on one leg with no tilt.
See if you can do the same thing with the other.
If you have difficulty from what we've talked about before,
if you take them out in abduction,
you should be able to get them down easier
because your tensor is gonna be
pulling on your pelvis as well.
Right, so for people listening,
if I'm interpreting this correctly,
if your legs are separated,
so your legs end up more in a snow angel type of position
as opposed to directly in front of your hips.
Now, is that a predominantly a diagnostic
or is it also a training move that's sliding your heel?
All of the above, all of the above.
I mean, that's the nice thing about going through an exam
in which you're looking for this path of least resistance,
the motion that is occurring too readily
because it'll occur too readily with all of the activities.
And it goes back to what we were saying before.
Then you try to make sure that you're either not getting
that motion or you're moving where you should be moving.
When you're taking people through the exam,
and I think this is what's so valuable,
is you're also showing them how to be in charge
of their symptoms because nothing is more scary
than here comes the pain, what did I do, how did I do it,
how do I get out of it?

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And if you're showing people, if you go this way,
it hurts, if you do it this other way, it doesn't hurt.
And that's helps also with people following the program
that's recommended because their symptoms
are there in charge of them
and they know what to do to decrease them.
This personal experience has been incredibly frustrating,
kind of horrifying because it's the first time in my life.
If you tear a labrum in your shoulder
or you break an arm or break a collarbone,
it's oftentimes reasonably straightforward
or it seems that way.
Whereas with this lower back pain,
I would feel better for three days
and then I would wake up and I would just be in incredible
like eight out of 10, nine out of 10 pain.
And I could not identify what the cause was.
And there've been times when my QL
and my external obliques and so on are so locked up
in the paraspinals that I can stand for a few minutes
and I have to sit down, find something soft.
And that's not the case right now,
but the recurrence of symptoms has been
so unpredictable on some level.
And a friend of mine who's in the medical profession said,
oh, how long have you had that?
And I said, nine months.
And as she said, well,
you technically qualify for someone with chronic pain.
And I was like, oh my God, is this the new normal?
This cannot be the new normal,
which is why I appreciate you taking so much time
speaking about this.
When someone comes in and they have not identified anything,
they come to you for help
or someone who's trained in your system.
What does the exam look like?
What does the session look like?
First, it's looking at what they look like.
I mean, for me, just like if I saw you standing,
I would know a whole lot more than just looking at you sitting
because all of these things that we've talked about

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indirectly, I would see immediately.
So one is just looking at alignment.
And believe me, that's a roadmap to a whole lot of things.
And I think it's also worth noting
that it's why people stand the way they stand
is to minimize energy expenditure.
So you can see what the passive tensions are,
which are reflective of how hypertrophy to muscle is.
And then it's simple motions, Tim, have people forward bend.
Does their back flex too much?
Does it not reverse its curve with you?
And how much do their hips flex?
And typically in men, there's more of a problem
of excessive lumbar flexion than there are in women
just because the center of gravity is higher,
the hips are stiffer, et cetera.
So how do they forward bend?
How do they rotate?
Because many people will twist
rather than really be able to rotate.
And then side bending.
Does it hurt?
Where do I see the motion?
Now, by twist, you mean their pelvis follows them
instead of that sort of.
See, that's the other thing that's interesting
is because I'm sure with you, people
have looked at what your range of motion is in your hips.
But when you're standing, you don't
have that same range of motion.
Your pelvis won't rotate on your femurs the same amount.
So one, does your hips not move?
And therefore, you have to move in your back more
because your pelvis isn't rotating, or is it asymmetrical?
And then the other thing is that actually, ironically,
if your abdominals are really good,
instead of sort of rotating off more of an axis,
though it's not perfect, your trunk shifts over.
Because if your trunk shifts over in a twisting motion,
it's because your abdominals won't elongate easily.
And then which one of these motions causes symptoms?
When I see that it's bad, I will correct it.

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For example, if you had pain side bending,
then I'd put my hand above your iliac crest.
Have you side bent again?
And if I've blocked it and you don't have pain,
then I know that that motion occurring there
is causing your pain.
The movement of the pelvis or the iliac crest?
The movement in your back.
And the same thing, if you bend over and there's no pain,
but you come back up and you lead with your back,
rather than your hips, then that causes pain.
Then I know, again, that extending
is causing your symptoms.
And then if your symptoms, as you have reported,
get better when you bend over, again,
I know that extension is causing your symptoms.
And then I go through little tests in supine
to see the length of the hip flexor muscles.
I look to see what your symptoms are in supine.
If you have symptoms, just like you sort of suggested,
if we flex your hips and knees,
you ought to be more comfortable.
Then when they're down straight,
if I abduct your hips,
I know that what's causing it that way.
Do you see what I mean?
So I will passively move your hips to see what the range is,
make sure it's passive,
then I'll have you do it actively
to see if that elicit symptoms, show you how to change it.
So I'm going through an exam looking for that movement
that shows up consistently.
If I stop it or improve it, the symptoms go down.
So I do in supine, sideline, prone, quadruped, sitting,
watch people walk, everything that gives them pain,
they get in and out of their car, how to roll,
how to go up and down stairs,
whatever activities would give them pain,
I'll go through them.
Is the assessment largely the same
for athletes versus non-athletes?
That's a really interesting point

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because in some ways, people have a hard time
because I'm looking for little baby things.
You know, ironically, there's really good research
that's been done by Linda Van Dillon.
And these movements that cause the symptoms occur very early
and they're only a few degrees.
And so sometimes with athletes, I've had the issue that,
well, these are just baby things
and they don't really matter, but they do matter.
You've got to stop that
and then you can build on bigger ways.
There's a therapist by the name of Robbie Ohashie
who's put these into, it's like a movement spectrum.
That's not the exact words I'm blanking on right now
where you do isolated exercises, combined exercises,
and then putting them together for your sport,
you know, whether it's tennis or whatever,
and he's seen a lot of athletes.
And that's the whole idea is that you get somebody
to correct the little bitty movements
and then you build on the more complicated,
the more demanding movements.
Do you have an opinion of,
I've not experienced this personally,
but something called DNS, I think it's dynamic,
neuromuscular.
Neuromuscular students, yeah.
Yeah, and because it seems like they build
based on some sort of motor skill development chronology
from childhood, so you'd start with supine or prone
and then move to crawling or something like that,
quadruped and then kneeling and so on.
Do you have any perspective on this?
To be perfectly honest, I think you're already grown, so.
I've...
Okay, got it.
Yep, certainly if my shiny paint
would as any indication then yes.
Looking at your well-shaved head,
I always reminded of what my father used to say
who was also bald from an early age,
and he would always say grass can't grow on a busy street.

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That's hilarious.

I'm definitely gonna use that.

Yeah, no, grass cannot grow on a busy street.

I don't think you need to stage it like that.

That's why I go through the whole exam and look at the sort of the finished product that needs some fine tuning.

The thing we talked about in the beginning and that movement causing pathology and the fact that it's really your everyday activities that cause it in the first place.

And so that's why you gotta change the way you're doing basic things, you know what I mean? And look at that because that's what caused the problem, that's what you need to change.

What is, I believe you call it, collapse-o-smasho?

Where did you get it?

I didn't even put that down.

Well, there are two farms here.

It relates to this fact that what we talked about already that the spine suffers from compression type things.

And in the older individual without muscles, it's collapse-o-smasho.

And younger individuals like yourself or others who have done a whole lot of abdominal exercises, I call it squeeze-o-smasho because, because the passive tension from those muscles is adding to the compression.

In the older people or people who are hyper-mobile, then it's kind of collapsing down without enough support. So, you know, it's not good if you don't have enough muscle and it's not good if you have too much muscle.

It's what's in between that's most important.

How do you find the Goldilocks amount of-

No pain and they look great.

No pain and they look great.

No pain and they look great.

All right, keep fine-tuning.

And the other thing is, you know, obviously we aren't all built the same.

I think that's one of the other important things is looking for structural variations

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and building that into the assessment.

That's the part that's tricky.

People don't always pick the right parents

and when they find out it's too late to go back, you know.

All right, so let's talk about perhaps

other common pathological patterns.

I've read that you've said or written perhaps

that most people wear their shoulders too low.

Could you speak to that

and perhaps also mention what corrective measures

can be taken?

What does it mean for people to wear their shoulders too low?

Well, it means that they should sit up at an angle

that is about six degrees or so higher.

And often you see when you don't look so bad,

but when people have done a lot of weight training,

that's one end of the scheme,

you'll see that their shoulders look really dropped.

They look lower.

So that the end of their shoulder isn't sitting up.

If you know that there's the cervical vertebrae

between C6 and C7 you should have,

that's about the level where your shoulders should be.

If that's way down or you can look at your clavicle

and you see that there's not this six degree angle.

Oh, I see.

So the clavicle should from inside to outside

have roughly a six degree upward angle.

You should have a little tilt to it,

should be upward angle, right, right.

So it could be too low.

And then the other way I like to talk about it

is just the weight of the world, the husband, the children,

you know, the bra straps, all of that pulling down

and women's shoulder girls are too stiff.

What's important about this is it's not only a factor

but it does to your shoulders.

It also does a number on your neck

because the muscles that help to hold your shoulder blades up

attach to your cervical vertebrae.

And the really big important thing on trying to address that

is using, I think, the muscle that's called,

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that's named the serratus anterior.
The serratus anterior attaches to your rib cage
and it can act like a sling.
So it attaches to your rib cage and to your shoulder blades.
So it's like a sling that can help
to hold your shoulder blades up
and take some of that load off of your cervical spine
as well as put your shoulders in the right position.
And having your shoulders sitting at the right position
is important for the glenohumeral joint
for all of the shoulder joint motions to work
without subjecting them to too much injury.
So it seems like perhaps in weight training,
I don't know if this contributes to the slope shoulders
and maybe the flat or downward angle of the clavicle,
but the advice to depress and retract your shoulders
is common for any number of exercises.
And I recall meeting with Eric
and what he has a lot of his athletes do
and this is very individual dependent.
So I'm not making a blanket recommendation
and I'm not speaking for Eric,
but for instance, as he has someone maybe retract
on some type of standing pulling motion
with say some type of cable machine,
I'll have them reach forward with the opposing side.
And it seems to me that there's less of that
kind of fixed depress and retract,
retracted position in a lot of what he recommends.
Is working on the serratus anterior
doing exercises for the serratus anterior
enough to correct that downward sloped angle
in people who have that as a current state of affairs?
Number one is also you have to be sure
when people have worked out.
Now it depends upon again what their workout routine is.
If there's somebody that hangs and does chin-ups,
one of the things can be that latissimus dorsi
is this big muscle and people do lat pull downs, et cetera,
or they do climbing things or hanging things.
And that muscle will pull your shoulders down.
So you got to make sure that that muscle

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hasn't gotten too short
and that you can get your arms up over your head
in the first place.
Number two is what you really want to do
is use the upper trapezius.
And the exercises where you're down here
is using the rhomboids and the middle trapezius.
And just for people who are listening,
this is like a rowing motion?
Yeah, anything that where your arms are below
your shoulders or at the level of your shoulders,
you're using muscles.
They pull your shoulder blades together,
but particularly the rhomboids downwardly rotate.
So it's gonna make it more difficult
to get your scapula to upwardly rotate
and to get the upper trapezius to work.
So one of the things that is probably more effective
is actually, I like to start people off.
And I think that's the other thing
that when I look at what recommendations
there are on the internet,
they never show people where to start.
It's like, do this exercise.
Well, not everybody's ready to do that exercise.
They've got to get ready to do it the way that's recommended.
But if you can face the wall
and slide your arms up the wall,
and then once your arms get to shoulder height,
particularly when they're lower,
then you shrug a little bit to get them up.
And then you try to lift them off
while holding your shoulders up.
How far are you standing from the wall?
And that can-
Oh, you're right up, right up there facing.
Okay, got it.
Right up there facing, your elbows are flexed,
you're sliding the little finger side
of your hands up there to get it.
And then if you just let your shoulders drop,
you've gained nothing.

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But you've got to also hold them up
as you lower your arms.
Keeping your shoulders up as you do this exercise.
Right, keep them up.
Get them up to where they should be worn,
not closer to your ears than your iliac crest.
Got it.
And that would be so you're looking to keep the shoulders
in the position where the clavicle is angling up.
Yeah, slightly.
Yep, yep.
The other thing is it just makes such common sense.
You can't spend the rest of the day
having them hanging down either.
So you should have a chair that has armrests on it
so that they're up when you're, you got your armrests up.
If you have to stand a lot, you can put them on your hips.
If one shoulder in particular is problematic,
you can support it with the other hand.
I mean, so again, exercises will mean nothing
if you don't follow through
if you're doing even 20 minutes of exercise,
but you're spending 12 hours
with your shoulders hanging down.
Right.
It ain't gonna work.
What is your position on,
and I know there are many different types,
but stretching, this can be a controversial,
sometimes polarizing topic,
but can you elaborate on how various forms of stretching
should or shouldn't be used
in healthy and rehabilitating populations?
Number one is really understanding
what you're meaning by stretching.
I've talked about this as we've gone on through this,
but I keep using the term stiffness
because I feel like I was sort of misled
during my early days as a physical therapist
when I didn't use my own sense of looking carefully
because we were told that certain movements occurred
because the muscle was too short

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and it needed to be stretched.
I'll give you an example.
The example we talked about already,
if you're on your back and you slide your legs down
and your pelvis tilts forward,
your hip flexors are too short.
Well, actually what it is is the struggle
between the tension from your abdominals
and the tension from your hip flexors.
So stretching your hip flexors
is not gonna fix the lack of tension in your abdominals.
And so what I find is that most often
there aren't muscles that are short.
There's a relative stiffness problem.
So improving the stiffness of your abdominals
will elongate your hip flexors.
Yeah, it's a relationship,
not just an isolated muscle that you need to stretch.
Right, and it isn't the length of the hip flexors
that's the problem.
It's the passive tension from those muscles
because when you're sliding your leg down,
that muscle isn't that active anyway.
And if it's related to the length of the muscle,
it shouldn't occur until you get to the end
of that muscle length.
And that's not when the tilting occurs.
So there's all these things that just don't make sense.
So what I found through these numerous years
of experience I've had is that there's many more problems
with relative stiffness than there is
with muscles really being short.
Now, if it's really short,
then you also need to find out what's making it short
because it doesn't just like,
oh, I think I'll go short today.
It's a matter of what is your activity.
When I'm teaching courses,
I have a great picture of a young man who has really short.
He has big curve like you're talking
about an increased lumbar curve.
Clearly his hip flexors are short and he's a cyclist.

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But you usually don't see that kind of alignment in a cyclist, you usually see a flatter back. But if I didn't let him use toe clips, he couldn't move the pedals around. So he moved the pedals by flexing rather than pushing. So that's why his hip flexors were short. So it wouldn't matter how much you stretched them. If every time he went out to ride the bicycle, he's using his hip flexors all over again in a shortened position. So he's basically in that rear half of the rotation of the pedal. He's pulling with his hip flexors. Right, instead of more pushing than just the lifting. So what is it that people are doing that's causing that muscle to get short? Other examples, and again, I find it so interesting about what intensive weight training is doing because if you're lifting, I've actually examined young women who are lifting twice their body weight. Well, you know, how many muscles do you use if you're lifting twice your body weight in a deadlift? Like every little muscle you've got in your body. Well, what happens is you end up training all of those muscles to come on. And they don't just go off. So they walk stiff-legged because there's too much activation of these muscles. And so they can't stand and have muscles relaxed because everything comes on. It doesn't say, I'll only come on when I'm weight training. You've trained them to come on. And now you've got much more output for a given muscle than you would otherwise. So it's too much. So you've got to learn also how to not activate them as much as you're learning how to activate them. I'm not against any of this. It's just that you need to know what all the additional factors are that take place with this training.

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So it's a long answer to the question about stretching, but my big point is you've got to figure out what's making it short. Then if you need constant stretching, you've got a problem with what's active, what's making it short that has to be addressed. So I've been advised, and it seems to help a bit, but to do a fair amount of, say, hip bridging or glute activation alternated with, say, hip flexor stretches. And if I have, in addition to that, the stiffness in the abdominal muscles contributing to this low back presentation, right? These symptoms I'm experiencing. Could you just remind me of how I would then work on that abdominal stiffness? I could do the overhead breathing and the side bends, but- That's for, that's stiffness. But again, what you're telling me, and again, I haven't seen you standing, but- I could stand. We're also on video. Okay. Do you like me to stand? Yeah, please, please. And I can tilt the camera as needed. Okay, yeah, pull up the shirt so I can see. Okay. Now turn sideways for me. Oh, yeah. Oh. No, no, no. I mean, I don't know what you're talking about. Your tummy's sticking out. Oh, well, yeah. I mean, like if I wanna look kind of in my second try, I can do this. Now, is that, which one's the real you? This is probably the real me. This is the real me. This is how I would stand. If I were standing on an event,

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I would probably try to tuck my hips a bit to take pressure off my back.
But you see, you don't have an increased lumbar curve.
You've got an increased thoracic curve.
The, you'd be like the kyphosis on the back.
Yeah, yeah, yeah.
And part of that kyphosis, yeah, right up there, yeah.
And part of that kyphosis comes from your rectus abdominis pulling down on your thoracic spine.
Interesting, right here.
Yeah, yeah, yeah.
And see, when you lean back like that, I'm telling you though, the rectus and the other abdominals become your anti-gravity muscles. So they're constantly being used.
Meaning that I lean back and then these are pulling me forward.
Yeah, you lean back to get away from those, but you need to, the rectus needs to be a little bit longer.
Okay, this needs to be a bit longer.
And the best way for you to do that is to do the quadruped thing and then let your thoracic spine go down.
Now, so that would be almost like the cow, no, no, the cat of the cat cow, I guess, sort of as I'm on my hands and knees.
All you need to do is think about letting your chest go towards the floor and like you feel the load on your shoulder blades.
Okay, now let me watch you just easily like you're gonna contract your tummy to pull it in.
Yeah, you see, you do sway back.
Okay, stop.
Yeah, this...
Now, you did lean back.
Yeah, if I'm gonna...
But don't, that's it, that's better, that's better.
Now, do you have any symptoms like that at all?
No, there's a little bit of tightness here, but it actually, it doesn't bother me right now.
Yeah, okay.
Yeah, and it looks like your hips are fairly straight.

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So go ahead and turn, put your back to me
so I can just put your back to me for a minute
and put your hands on your iliac crest.
Get my index fingers on my ASIS.
Yeah, with your hands like that,
it looks like they don't look so bad to me.
Let's do what we talked about before,
put your feet apart and let's just see what happens.
Does that, if that changes your symptoms at all?
Yeah, it seems to help.
I'm wearing very silver shoes,
so I'm doing a little bit of...
Is it better?
Yeah, it's better.
I would say this would help if I was recording a podcast.
What would help even more
is if I put my one leg up on something,
if I stepped on something.
Yeah, yeah, yeah.
Does it matter which leg?
Right leg, because where I feel most of the pain
is sort of localized around this body process here.
Right, right, yeah.
So that is gonna be the tensor on that side.
Now let me do one more thing,
just bend over and come back up.
From the side like this?
Yeah.
Well, yeah, see, now you need to work a bit
on how you come back up from...
Forward bending, so that it's...
And don't worry about going over that far.
Okay.
You need to come up with your hips and less back.
As you finish off your back,
you sway back and do too much back extension.
Oh, when I get to the top, you're saying?
Yeah, about the last...
So hinge more at the hip?
30, 40%.
Does that mean?
Just think about going over and coming back up

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by making your hips extend.

Okay.

Hold it there.

Now hips, just come back up with hips.

Hips, hips, hips, hips, yeah.

That was better, yeah, just, yeah.

And try not to let your back sway back.

You use the momentum of your upper back coming back to finish up.

I see, I get a little extension.

And then you get a little extension and that's not good.

Okay, got it.

Anything else that I can...

Yeah, I mean, I can do more, certainly.

This is helpful.

If you can easily practice,

you've got those, the lower abdominals are the external obliques.

They're the ones that tilt your pelvis.

And if you just easily practice tightening those,

but don't work hard at it so that you sway back.

So this is the external obliques

and then what was the other muscular tree you mentioned?

I'm saying don't sway back.

Just easily try to tighten them

so you get a little bit of a pelvic.

Yeah.

Mm-hmm, yeah.

Lenny.

Yeah, okay.

Now, are you good that way?

Yeah, I'm good, I'm good.

Yeah.

And this would be in a standing position

when I would have just a little bit of tension

in the external obliques.

You do that as much as you can.

Yeah.

Because you see, it limits your symptoms.

That's all you need to do.

Yeah.

And then work on that little increased thoracic kyphosis.

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Mm-hmm.

So, or I'm, I guess, reducing this kyphosis by lengthening.

Yeah, if you decrease that, then you won't sway back so much.

I got it.

And if this, if your rectus abdominis elongates better, you won't have that tendency for a thoracic kyphosis.

And to extend then, elongate the rectus abdominis, for people listening, this is like six packs, right?

This stuff running down the front of the abdominal.

Oh, sorry.

Yeah, that's right.

I forgot about the microphone over here.

That to elongate the rectus abdominis, I could get in that quadruped position and basically drop my chest to the floor as I'm pushing my hips backwards.

Just in that position, just let it go down.

It's amazing how much you can improve your alignment.

And it looks like you could change pretty readily.

And the big thing, so we started off because you were doing the bridging exercise.

I wouldn't be tempted to do that.

Okay.

Juan, you'll do a much better loading of your gluteal muscles by that bending over and coming back up with your hip extensors.

Yep.

And if you tighten it there, there's also a tendency for the glutes to actually posteriorly tilt the pelvis, but the spine doesn't go along for the ride.

Could you say more about that, please?

This is one of my guilt trips because many years ago I was working, to get the point across, I'll tell you my little story.

Yes, please.

I was working with this older woman.

I thought old was my age now.

And so she did have spinal stenosis.

And I was working on sit to stand

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so she didn't have any symptoms.
And I had her try to tighten her abdominals
and she was doing pretty good.
And then I said, okay, now let's tighten
your gluteal muscles as you get up.
Well, she did that
and she got pain shooting down her legs.
And the reason being that your gluteal muscles,
as you know, attached to the pelvis.
So if they posteriorly tilt the pelvis,
but if the spine doesn't wanna go along for the ride,
it stays there and you get a translation motion
between where the pelvis is moving
and the vertebrae are not moving.
Right, the gluteal muscles
are basically pulling the pelvis
out from under the spine in a sense.
Exactly, not a good idea.
Now, if your spine moves easily, then that's all right.
And you can get the same effect
if you would put your hand where your spine is
and tighten your glutes,
you'll see your spine doesn't move.
You see what I mean?
If it wants to go along for the ride,
it'll go along for the ride.
But the problem is those people
where it doesn't wanna go along for the ride
and you're gonna be one of them.
So in what ways do I need to be careful then?
I mean, I just don't think that's a good exercise for you.
The bridging.
The bridging.
I feel especially if I do bridging single leg,
but even double leg, I remember,
it's been recommended to me by a number of PTs
and I've told them all,
like guys, this really bothers my back.
Yeah, and it's arching your back.
It's not a good plan.
Yeah, okay, I'll skip those.
I would skip those.

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When do you have time to do all this?

I don't, I don't.

That's honestly surely been one of the compounding factors that has been so frustrating.

Not only am I getting very often entirely different diagnoses, but I also get 37 different programs and there's just no way that I can fit them in and many are probably conflicting also.

Right.

I've found the movement focused approach to make a lot of, at least intuitive sense to me.

If our entire conscious experience of reality is modeled on a brain that has evolved to move us through space, it just seems to make sense that that is the variable to pay a lot of attention to because it's not just a variable, but a system of systems, as you put it, much like the immune system.

So it makes a whole lot of sense.

Now, you just mentioned older woman, but she's now my age.

Would you mind sharing your age, but also your own self-care, I suppose, routine.

What do you do to keep as sharp and as in shape as you are?

I would love to know more about that.

Next month, I'll be 86 years old.

It's incredible.

It's just amazing.

I would never guess in a million years.

I'm so lucky.

I'm so fortunate too, because I don't mind saying both of my parents had dementia and I've now exceeded their ages, both in life and in dementia.

Right now, I don't know that I have any.

I would not think you have any.

Very, very sure.

So far so good.

So far so good.

As I told you that, number one,

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choosing to be a physical therapist.
And also, I was very fortunate because growing up,
I refused to grow up and I played sports in my day.
It's when are you gonna grow up and stop all that stuff?
And that was very good.
We also didn't have air conditioning
and we only had one car.
So instead of paying more for a bicycle than a car,
I had to ride a big old bicycle and ride it everywhere.
So I happily laid down enough bone and enough muscle
in my early years.
And then the physician that I encountered
who was part of the Department of Medicine
at Washington University in St. Louis,
his name was John Holizzi.
He started bringing in the lifestyle issues.
And as a physical therapist,
even though I got a PhD in neurobiology,
because I wanted to solve the motor control problems
of the stroke patient, I stayed very physically active.
I started really running and doing things
when I started my PhD studies
and after encountering this physician,
and learned a bit about nutrition,
breaking all the family tendencies.
And then again, learning about musculoskeletal problems,
even though I was really interested
in working with neurological patients,
people with spinal cord injury, head injury, stroke,
I'd always had this tendency to look at how people moved
and I totally tried to figure out
why they were moving the way they were moving, et cetera,
and got involved with musculoskeletal patients
and they started getting better.
So I had to figure that out.
And then I applied my own ideas to myself.
I don't know how folks are you wanna get up,
but there are really some funny stories
connected with that. Oh, let's do it.
Oh, yeah, no, we love funny stories around here.
Well, and it really related to doing
this quadruped little exercise.

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So one sort of funny story was I was really poor
going through getting my PhD
because I didn't have any income
and was living off of a minimum amount of money.
And so I didn't get to buy new clothes very often.
And I had a pair of slacks that I was wearing for a long time
and a friend actually took me out to play golf
and it was an older woman at that time.
And we're out playing golf and she says,
surely you've got your pants on backwards.
And I said, you know, I'm working on my PhD.
I think I ought to be able to know how to put my pants on.
And so we started looking at the darts
and I said, well, I'm sure enough, I had them on backwards.
Well, before my alignment was such
that they looked all right,
but now that I was doing this quadruped exercise,
they didn't look all right.
They were looking funny
because I had changed the curves in my back and my buttocks.
And so that's why she caught the idea
that I wasn't wearing my pants right.
Which quadruped movements were these?
It's just the idea of being in quadruped
and just letting your back go down and then rocking back.
I tended to ride the bicycle.
I was a catcher for three different softball teams.
So I was really in a posterior tilt with a really flat back.
And I had never really gone the other way.
And just for people who are listening,
if you don't know, just to imagine,
if you imagine the pelvis as a bowl of soup,
posterior tilt, you're kind of pouring soup
out the back of your pelvis just for people.
Holding it in the middle.
Yeah, yeah, right.
Yeah, got it.
Okay.
And so your back, your whole back goes kind of flat then.
And when you're pushing your hips back,
you were facilitating more of a natural curve
in the lower back.

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I was getting my hips to bend and letting my back go down so as getting more of a curve.

And I think also decreasing a bit of a tendency towards a thoracic hypohosis.

The other thing that was really an interesting,

I used to bowl with a bowling ball.

And while I was in my PhD program,

which took me six years,

I didn't have any money to bowl.

And so when I went and got my bowling ball out again,

I had to change the finger grips

because I had stretched my finger flexors out.

And so the finger grips no longer fit me

because my fingers were longer.

So could you explain that?

So your grips had been molded to fingers that were...

My fingers were always flexed from everything I did.

Right.

And I never really thought about stretching them out.

And so when you're in quadruped,

Oh, right.

You end up stretching those all out.

Right. Okay. I see. Right.

Instead of...

So for people who are listening,

because we're making movements with their hands

and gestures with the hands,

instead of being in sort of the keyboard position,

we're going to make the video available as well,

but some people will only hear audio.

So instead of being in sort of that keyboard,

you know, hawk talon position,

when you're in quadruped, right?

As if you were doing a pushup,

but not that pushup position.

If your hands are flat on the floor,

then you're going to be stretching those flexors.

Stretching across the wrist and across the fingers.

Yeah.

Got it. So you had to change your bowling ball.

That's wild.

Yeah.

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And then the other thing is I'd always worn my shoes off so that they were going off to the side.

And after I did this few years of this quadruped rocking, I didn't walk in the same way.

And I didn't have my shoes worn off to the side from just walking.

Interesting. So worn off to the side, you mean the shoes on the inside were worn or on the...

Yeah. Like the outside of the right and the inside of the left.

So there were all these little changes that took place just from improving my alignment, partly with that.

So to go on to answer your full question, so what do I do these days?

Guess what? I still do quadruped.

I don't go all the way back and sit on my heels.

And I also want to tell you about one thing people need to know about for that exercise.

And then I do pushups, modified pushups, and then in prone.

And I think that if you could do this carefully, it'd be good is in prone.

I flex my knee so that my leg as much as possible is falling on my thigh.

You're laying down on your chest.

You...

Yeah, I'm laying down, face down, bend my knee.

Will you bring up one knee?

And I tried to get my leg, just one knee, to fall back on my thigh

because I don't want to hold it bent at 90.

In other words, if you bend your knee, you can go to 90 degrees.

If you go more than 90 degrees, your leg is falling on your thigh.

I see. Your lower leg is sort of falling onto your hamstring.

Yes. Okay. Got it.

That's your thigh, yeah.

Yep.

And so, right.

And so you're...

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And so then in that position,
then I lift my thigh off of the floor.
I do hip extension, but not high.
There's only 10 degrees of motion,
but it's a way to stretch.
It's a way to use your gluteal muscle
because you can't...
If you use your hamstring, you'll get a cramp.
Yeah.
You'll get a bad cramp in your hamstring.
So just a little bit of hip extension
to use my gluteal muscle.
How many repetitions are you doing on each side?
I just do 10 repetitions on that on one side
and then 10 repetitions on the other.
And you're doing roughly 10 repetitions
of the quadruped rocking as well?
I'm not sure if that's the right term.
Yep, yep, yep.
And 15 push-ups.
Got it.
15 modified push-ups.
Modified is your knees are bent.
I don't go to my toes.
Mm-hmm. Got it.
Okay.
All right.
And then still in the prone position,
knees flexed to 90 degrees.
And then I do hip rotation in both directions,
letting my lower leg come in and then go out.
Right, so just if I can translate
and please correct me if I'm getting this wrong,
but you're bending one, you're laying on your chest,
one leg bent to 90 degrees
and basically windshield wiper
with that lower leg on each side.
But I do both at the same time.
Oh, you do both at the same time?
Okay, I see.
Yeah, so they're not quite,
one's maybe 80, the other maybe 70

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because it doesn't take all that long.
And then with my knees extended straight,
with my lower extremity straight,
I alternate doing hip extension,
but I think about using my gluteal muscle.
I think about activating my gluteus maximus.
And again, only about 10 degrees of hip extension.
And then in that same position, I do hip abduction.
In other words, one leg out to the side 10 times
because you use your gluteus medius and that better
if you're working against gravity and extension
than you do when you're supine.
Supine, you tend to recruit the tensor too much.
Oh, I see, got it.
And is there anything that follows that abductor work?
Then I go supine, turn over.
And I think this is really,
I'm pretty good about not having a kyphosis,
but in supine, I AD duck, pull my shoulder blades together
and slide my arms up over my head
so that my arms are all the way up over my head
as much as I can.
And I'm on a hard floor.
And I'm starting with my hips and knees bent,
arms up overhead and then slide one leg down,
slide the other leg down.
And believe me, for an older person
who's got a tendency towards collapse or smash-o,
just getting yourself as stretched out as possible
is so important.
Mm, yeah.
I mean, really?
Sounds like for me with my kyphosis,
that would also be important.
Yeah, and the biggest worry is gonna be with the older person
that if you have a kyphosis,
you're not gonna be able to get your arms
on the floor all the way up over your head.
And you don't know pain,
you don't want any pain on top of your shoulder
because that's not gonna be a good plan.
So they may need to have a pillow up there

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when they're first starting
so their arms don't go all the way back
because you wanna avoid any kind of pain
on top of your shoulder.
But happily, I know how to do it and I can do it.
And then I do actively hip and knee flex,
bring one knee towards my chest,
put it down and the other one
and 10 times with each leg.
And then with one foot on the floor,
I do a straight leg raise.
I don't tighten all my thigh muscles
so that my knee is perfectly straight
and I turn it out a little bit
so that I don't use the tensor.
But if I rotate it out, you'll use the psoas more.
And I think about tightening my abdominals.
I have had a significant problem
and I don't wanna put too much stress
on my lumbar spine from the iliopsoas.
I wanna use it, but I wanna protect my back.
That's why I have one foot on the floor.
I see, that's why you're doing one leg at a time.
Well, yeah, it's certainly one leg at a time.
Now, so could you just reiterate,
so given the past lumbar issue,
why you would want to engage the psoas
instead of the TFL in this case?
I mean, it's a good muscle to use.
I need to be able to flex my hip.
But the tensor, it has a real low threshold for activation.
I mean, interestingly enough,
if you would scratch the bottom of your foot,
first muscle to go off will be your tensor fascialata.
No kidding, wild.
Yeah, in fact, I think it's so interesting
because I've tried to contact the World Health Organization
because all over the world, the tensor is run amok,
but they don't wanna listen to me.
They're not returning the calls.
You know, I know, it's this little bitty wimpy muscle
and you say, how can it cause so much trouble?

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But it sure does, you know, it plays a role
in what happens to the knee, plays a role
in what happens to the back and the hip.
I mean, it's an evil thing.
But anyway, but you know, an interesting thing,
one of my colleagues was doing a study
and we actually had a student
that did not have a tensor fascialata.
No kidding.
I mean, just, yeah, we didn't throw out a school
or anything, but anyway, I couldn't wait to do all the tests
that we do to look for the length of the tensor.
And she was a, you know, a fair athlete.
So it wasn't like it had been sitting
not doing anything if it was there.
And I did all the tests and they were negative,
which was kind of supportive to me
that indeed the tensor does do things
that aren't so kind to the rest of the body.
So anyway, all that to say,
that's why when I do the straight leg raise,
I try to laterally rotate my hip
because I'd rather use the psoas.
And it's not causing me any problems.
Clearly, if I thought I was injuring myself,
I would not, would not do that.
And then I do one other thing with one leg straight
and the other foot on the floor
so that my knee is bent, my foot's on the floor.
I let my leg go out to the side.
And that's my way of trying to work
on controlling rotation with the trunk.
My leg goes out to the side.
It wants to rotate your pelvis,
but contracting your abdominals prevents that rotation.
So that's another way I'm trying to work my abdominals.
And then I stand up and I'm so proud of myself
because I can get up from the floor without any difficulty.
And many people at my age
are many years younger than that can't do that.
And put my back to the wall
and then do what I was telling you to do,

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arms up overhead and do the little side bend thing.

And you do this every day?

I do, then I walk three to four miles a day.

Amazing.

And sometimes ride a stationary bike.

Well, these are things I'm paying more and more attention to.

I'm so impressed.

But let me tell you one thing now, Tim,

that the quadruped is much as I love it.

And I think it's important whether you have a shoulder problem,

a cervical problem, et cetera,

is that one of the things that's a problem though,

is, and it can be for several reasons.

But again, the tensor is one of them.

If you rock back and your hip immediately rotates.

In other words, I found this in some patients that

as you rock back, your hips should just flex.

But if you are monitoring the femur,

you can sometimes see that it immediately rotates.

That is really bad.

And the reason why it's really bad

is because it's rotating in your knee joint too.

And that's a good way to set yourself up

for an ACL tear, anterior cruciate ligament.

And I think people should be monitoring that.

Anybody that's doing that.

One of the things that helps is if you slightly,

laterally rotate your hips.

You know, many people, particularly men,

come with what we call femoral retroversion.

Do you know what that is?

I don't.

You probably have a femoral retroversion.

It's a structural variation.

And so the femur, as you know, has a head and neck on it.

It's angled.

Well, it's also rotated on the shaft.

And in the ideal world, the average, not the normal,

the average is that that rotation is 15 degrees.

So the head and neck of the femur

are pointing 15 degrees forward.

Now, many men, it's not rotated.

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So what it means is that when you're doing your hip rotation, you go out a long ways, but you don't go in.

That's true for me, for sure.

My internal rotation is terrible compared to my external rotation.

Well, but that's because you came that way.

So it should never change.

No, I mean it.

And so you, and men need to know that.

And so, in fact, that's a problem

because if your tensor is really developed, you could be sitting in hip medial rotation when you shouldn't be.

And if your glutes are really good, that'll also medially rotate your hip when you're sitting.

That's a problem.

But one of the ways to,

if you're trying to do the quadruped thing,

is to turn your hip out a little bit

when you're in the quadruped position.

So your feet would come together a little bit closer.

Right.

More of like a wrestling, partier position.

That meaning.

Yeah, I don't know.

I don't know.

I never wrestled.

Yeah.

I can pick up the slack on explaining that then.

So from.

Not with a referee anyway.

Yeah.

Okay.

So the.

Right, right.

So from the feet to the knees,

it would just be making a very, very, very slight V shape.

It's not a V shape.

The lines would converge, in other words, right?

Yeah.

Your feet would be a little bit closer together.

Yeah, exactly.

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You're funny.

All right.

So that makes a lot of sense to me.

And I'm certainly comfortable with that.

What would it mean or how would you read the movement pattern that I have of sitting and having my legs sort of splay open?

That's also something that alleviates my low back symptoms.

If I'm sitting in a chair, oftentimes I'll take my shoes off and fold them up on top of the chair.

Restaurants hate this, by the way.

So I do get chastised occasionally, but it alleviates some of my lower back issues.

Yeah.

You're getting at four and a half because you're probably in this, one of the syndromes I have of the hip that I've described of the hip because if your tensors really develop, it's going to be holding your femur in medial rotation when you're standing because it's pull taught then.

If your gluteals are really well developed, when your hips flexed to 90 degrees, they become medial rotators too.

So they're trying to hold your hip in medial rotation and you're probably getting that twist on your back.

So when you laterally rotate your hips, then you're taking that pull off of them.

Taking the pressure off of it?

Yeah.

You're not getting that extra pull on your pelvis from those gluteal muscles being pulled so tight.

And that's where you should be.

That's your normal thing because you have femoral retroversion.

See, and that's one of the things that's bad is because when people go in and they're deadlifts and they say, well, make your feet point straight ahead.

Well, many men in particular shouldn't have their feet pointing straight ahead because they have this femoral retroversion.

And also when they do things that rotate like play golf,

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their feet should be turned out
because if they're straight ahead,
they're at the end of their medial rotation range.
So then it'll be the knee or the back
or the hips that are gonna go.
It's also interesting.
Yeah, it's like the back is attached,
the back bone is attached to the pelvic bone.
And I think to me, that's what's so valuable
about being a physical therapist or looking at people
because I can't, like an orthopedic surgeon,
just look at the knee or I can't just look at the hip
because it's the result of all of these interactions
of the body.
That's what's so important.
And in a case like mine where if you look at family photos,
especially on my mom's side, the feet point way out.
I mean, a lot of the guys stand like ducks.
And now at the same time, I have been told,
and I agree with this, that if one were to watch me walk,
I have probably because I have at times
the feet pointing out very little sort of glute hamstring
assisted hip extensions.
So I tend to bend at that lower back,
maybe a misdiagnosing things,
but how would you sort of make sense of that?
Would it be bad for me to try to point my feet
a little more straight ahead
so that I get better hip extension using the gluteal muscles
and the hamstrings versus the lower back
or is that gonna be setting me up for knee problems?
Usually if you're not using your gluteal muscles
and that is because you're swayed back.
If you're swayed back,
your line of gravity is behind your hip joint.
Right, right.
And if your line of gravity is behind your hip joint,
you don't need your gluteals or those other muscles.
So if you reduce that kyphosis, which isn't bad,
it's just not helpful for what your condition is.
And then you go forward.
And then the other thing is if you also push off,

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in other words, when you're walking,
and this could be another way
in which you're reinforcing what your tensor's doing.
If you tend to walk by pulling your leg through
rather than pushing with your feet
and letting it swing through.
And if you push with your feet,
you'll activate the extensors more.
So the two things, the things that may be contributing to,
and I'm not saying this is for sure
because I'm obviously not analyzing you,
but let's say if we paint a scenario
that you're swayed back with a kyphosis,
your line of gravity is behind your hip joint,
I always call it then the gluteals
or do not have good definition.
I call it missing for lack of action.
And so then you pull your legs forward
with your hip flexors.
You're just reinforcing the overuse of the tensor.
But if you decrease your kyphosis,
so your line of gravity is a little more
running through your hip rather than way behind it,
and you roll over your feet and you push with your feet.
And so you roll over so that you're pushing
with the ball of your foot and your leg swings out,
you'll use your gluteals more.
Just pushing instead of pulling,
you wanna chase your center of gravity, not pull it.
Yeah, this kyphosis has been with me
since I was a little kid and it's,
I've tried foam rolling, manual release,
strengthening the mid-back,
but I have not worked on elongating the rectus.
You know, there's a condition called Sherman's disease,
which isn't really a disease.
If you had it, particularly it happens in your teenage years
where you get a, do you've heard of it?
No, I haven't heard of Sherman's disease,
but ever since, I would say since I've been like 12, 13,
I've had this kyphosis, lordosis combo.
Well, then you've probably got Sherman's disease.

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Huh, okay, I'll have to look it up.
It's S-C-H-E-U-E-R-M-A-N-N.
And it's kind of a idiopathic compression fracture
of the thoracic spine.
It means you won't get rid of it.
Oh man, okay.
But I think if you just don't sway back more
and just stay forward a little bit,
if you can make peace with that.
Well, I can try to work on the elongating of the...
Well, it's not going to change.
The big thing is don't let it get worse.
Right.
Yeah, if that's what you have.
I'm not saying that's what you have, but I'm saying...
Right, it's possible.
Yeah, because it happens around the teenage years.
So what would be the keys to not letting it get worse,
would you say?
Don't have it increase.
I mean, you can still do the same things, Tim,
but just don't say, I will be absolutely perfect.
I have to settle for kind of perfect
instead of absolute perfect.
That's probably a good M.O. for most of my life, I would say.
Well, most of us don't get that close, there we go.
I'm probably further away than I would like to admit.
So surely this has been such a great conversation.
We've covered so much.
I've taken copious, copious notes.
And certainly people can find your books.
The diagnosis and treatment of movement impairment syndromes,
which has been translated into seven languages,
as well as your second book,
Movement System Impairment Syndrome of the Extremities.
The cervical and thoracic spines has been very influential
in promoting movement diagnoses.
Is there anything else you would like to mention?
Anything else we should talk about?
Anything you would like to draw attention to
with my audience, anything at all
that you think is worth saying or discussing

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before we begin to wind to a close?
It's probably just a little repeat
of all the things we've been talking about.
It's been really great and generous of you
to allow me to discuss your issues.
But what's really nice is here you are,
somebody that's worked so hard to address all of these things
with all the discipline that most people don't have.
And it's still hard to get a straightforward story
about what's going on and how best to suture.
And that's what worries me a lot.
Number one is I look on the internet for exercises
and most of them people can't do
and they're not taking into account the variations
in how people are.
I mean, here you've been through all this exam
and nobody said you have femoral rotation,
which you need to know.
Because you came that way, you need to stay that way.
So I would like to see that there's more respect
for how difficult exercise is.
It's not like here's the way everybody should go out
and do this one thing and then they'll all will be well.
I'd like to see this recognition of movement
as complicated as anything else that the body does,
that there is a movement system, a physiological thing,
and that we should have diagnostic categories
so that people when they're consulting a physical therapist
get a diagnosis just like when they go to any doctor.
I mean, that's to me why you go to a doctor
is to get a diagnosis or find out
what condition you're working on.
I think that would do a lot to help reducing
all this variability in treatment.
And I think helping people to understand
how it's the way they do their everyday activities
that causes the problem
and that those can be changed with good direction.
I can't help but say this too.
I help a good friend who's actually on a dementia floor.
I go to help feeder twice a day.
And I look at all the older people

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that are in assisted living.
And the majority of them are there
because they have physical disabilities.
I'm older than most of them.
And I think if people had a chance
to address these things early on
and with a discipline like UShow and good direction,
we could cut down on improve the quality of life.
I know you've interviewed Dr. Atina
and much of what he says, medicine 3.0 or something.
And if we did that with more care on exercise
and knowing how to do everyday activities
and not just take them for granted,
I think people could have longer, fuller lives.
And yeah, be as fortunate as I am.
Agreed, agreed, agreed.
What a great conversation.
I've learned so much and I've taken so many notes.
I have a lot to dig into.
It's also given me some renewed optimism
in terms of exercises that I can work with,
movements, I should say, that I can experiment with.
I hope you'll get back to me if I can help further.
I will.
If you find out that these things are going along,
I would be more than happy to do this a little more formally.
Yeah, absolutely.
I really appreciate it.
We can do it on Zoom.
I mean, we can do it on this.
Yeah, I would very much like to do that.
So thank you for the very kind offer
and thank you for so kindly taking the time
to have this conversation.
I think it'll be really helpful to people.
As my dear friend, Michael said, you are tremendous.
I've really enjoyed talking to you
and you do have a sense of enthusiasm
and how to ask the right questions
to make it fun for both of us.
Thank you so much.
And for everybody listening,

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we will link in the show notes to everything we discussed as usual at TimDupLogs.

Slash podcast.

And until next time, be just a bit kinder than is necessary, not only to others, also to yourself.

And as always, thanks for tuning in.

Hey, guys, this is Tim again.

Just one more thing before you take off.

And that is Five Bullet Friday.

Would you enjoy getting a short email from me every Friday that provides a little fun before the weekend? Between one and a half and two million people subscribed to my free newsletter, my super short newsletter called Five Bullet Friday.

Easy to sign up, easy to cancel.

It is basically a half page that I send out every Friday to share the coolest things I've found or discovered or have started exploring over that week.

It's kind of like my diary of cool things.

It often includes articles I'm reading, books I'm reading, albums, perhaps, gadgets, gizmos, all sorts of tech tricks and so on that get sent to me by my friends, including a lot of podcast guests and these strange esoteric things end up in my field and then I test them and then I share them with you.

So if that sounds fun, again, it's very short, a little tiny bite of goodness before you head off for the weekend, something to think about.

If you'd like to try it out,

just go to TimDupLogs slash Friday, type that into your browser, TimDupLogs slash Friday, drop in your email and you'll get the very next one.

Thanks for listening.

This episode is brought to you by Eight Sleep.

Temperature is one of the main causes of poor sleep and heat is my personal nemesis.

I've suffered for decades, tossing and turning, throwing blankets off, pulling the back on, putting one leg on top and repeating all of that ad nauseam. But now I am falling asleep in record time.

Why?

Because I'm using a device, it was recommended to me

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by friends called the Podcover by Eight Sleep.

The Podcover fits on any mattress
and allows you to adjust the temperature
of your sleeping environment,
providing the optimal temperature
that gets you the best night's sleep.

With the Podcover's dual zone temperature control,
you and your partner can set your sides of the bed
to as cool as 55 degrees or as hot as 110 degrees.

I think generally in my experience,
my partners prefer the high side
and I like to sleep very, very cool.

So stop fighting, this helps.

Based on your biometrics, environment and sleep stages,
the Podcover makes temperature adjustments
throughout the night that limit wakeups
and increase your percentage of deep sleep.

In addition to its best in class temperature regulation,
the Podcover sensors also track your health and sleep metrics
without the need to use a wearable.

So go to eightsleep.com slash Tim,
all spelled out, eightsleep.com slash Tim
and save \$250 on the Eight Sleep Podcover.

That's eightsleep.com slash Tim.

Eight Sleep currently ships within the US,
Canada and the UK, select countries in the EU and Australia.

Again, that's eightsleep.com slash Tim
to save \$250 on the Eight Sleep Podcover.

This episode is brought to you by Element, spelled L-M-N-T.

What on earth is Element?

It is a delicious sugar-free electrolyte drink mix.

I've stocked up on boxes and boxes of this.

It was one of the first things that I bought
when I saw COVID coming down the pike
and I usually use one to two per day.

Element is formulated to help anyone
with their electrolyte needs and perfectly suited
to folks following a keto, low-carb, or paleo diet.

Or if you drink a ton of water
and you might not have the right balance,
that's often when I drink it,

or if you're doing any type of endurance exercise,

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mountain biking, et cetera, another application.
If you've ever struggled to feel good
on keto, low-carb, or paleo,
it's most likely because even if you're consciously
consuming electrolytes, you're just not getting enough.
And it relates to a bunch of stuff
like a hormone called aldosterone, blah, blah, blah,
when insulin is low, but suffice to say,
this is where element against spelled L-M-N-T can help.
My favorite flavor by far is citrus salt,
which is a side note you can also use
to make a kick-ass no-sugar margarita.
But for special occasions, obviously,
you're probably already familiar
with one of the names behind it, Rob Wolf,
R-O-B-B, Rob Wolf, who is a former research biochemist
and two-time New York Times bestselling author
of The Paleo Solution and Wired to Eat.
Rob created element by scratching his own itch.
That's how it got started.
His Brazilian jujitsu coaches turned him
on to electrolytes as a performance enhancer,
things clicked, and bam, company was born.
So if you're on a low-carb diet or fasting,
electrolytes play a key role in relieving hunger,
cramps, headaches, tiredness, and dizziness.
Sugar, artificial ingredients, coloring,
all that's garbage, unneeded,
there's none of that in element.
And a lot of names you might recognize
are already using element,
and those recommend to be by one of my favorite athlete friends.
Three Navy SEAL teams as prescribed by their master chief,
Marine units, FBI sniper teams,
at least five NFL teams who have subscriptions.
They are the exclusive hydration partner
to Team USA weightlifting and on and on.
You can try it risk-free.
If you don't like it,
element will give you your money back, no questions asked.
They have extremely low return rates.
Element came up with a very special offer

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for you, my dear listeners.

For a limited time,

you can claim a free element sample pack.

You only cover the cost of shipping.

For U.S. customers,

this means you can receive an eight-count sample pack
for just \$5.

Simply go to drinkelements.com slash Tim.

That's drinkelement.com slash Tim

to claim your free eight-count sample pack.

One more time, that's drinkLMNT.com slash Tim

for this exclusive offer.

[Drinkelements.com](https://drinkelements.com) slash Tim.

Check it out.