

How Postural Restoration Can Help Restore Your Health

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January 28, 2024

STORY AT-A-GLANCE

- › Your body is naturally asymmetrical. Balance is maintained through the integration of these system imbalances. When balanced integration fails, structural weaknesses and pain can develop
- › While walking barefoot outdoors on uneven terrain is a great way to ground, walking barefoot on hard, flat surfaces, such as tile or concrete, can cause problems, including bunions
- › Things like eyeglasses, LASIK surgery, dental implants and root canals can affect your sensory experience, and hence your gait and posture, which in turn can result in pain syndromes
- › Dental work can affect your bite, which affects your cranial and cervical posture. If teeth are pulled and not replaced with an implant, your brain may not be able to determine where your center of gravity is, causing your body to overcompensate to one side or the other
- › LASIK eye surgery can trigger unexpected problems. One of the main problems is that if it fixes you into a set prescription that is wrong, it can lock in dysfunction. With glasses, you're not locked into one prescription. You can change it and get new glasses if it turns out that your symmetry was off

The interview features Aleena Kanner, one of the leading postural experts in the U.S. She's a certified Postural Restoration Institute (PRI) practitioner. What is postural restoration? The following explanation is given on the PRI website:¹

"The human body is not symmetrical. The neurological, respiratory, circulatory, muscular and vision systems are not the same on the left side of the body as they are on the right, and vice versa. They have different responsibilities, function, position and demands on them. This system asymmetry is a good thing and an amazing design.

The human body is balanced through the integration of system imbalances. The torso, for example, is balanced with a liver on the right and a heart on the left. Extremity dominance is balanced through reciprocal function; i.e. left arm moves with right leg and vice versa.

Postural Restoration Institute® (PRI) credentialed professionals recognize these imbalances and typical patterns associated with system disuse or weakness that develops because of dominant overuse. This dominant overuse of one side of the body can develop from other system unilateral overuse ...

When these normal imbalances are not regulated by reciprocal function during walking, breathing or turning, a strong pattern emerges creating structural weaknesses, instabilities, and musculoskeletal pain syndromes ...

PRI credentialed professionals recognize the more common integrated patterns of human stance, extremity use, respiratory function, vestibular imbalance, mandibular orientation and foot dynamics; and balance these patterns, as much as possible, through specific exercise programs that integrate correct respiration with left side or right side inhibitory or facilitatory function."

Kanner primarily works with patients with chronic pain that cannot be traced to its source. I ended up going to New York to see her to address a bunion that I'd been trying to treat for the last year. My bunion was not causing pain, but it's a definite deformity, and I didn't want it to get worse.

I now believe one of the primary causes of the bunion was adopting a "barefoot" lifestyle for well over 10 years. I visited Kanner to find out if some intervention could address the foundational cause of the bunion.

The Caveat Against Walking Barefoot

According to Kanner, I likely got the bunion because I haven't worn shoes for over a decade. Going barefoot is great if you're walking on the beach on grass all day, but I have tile floors in my home, and walking barefoot on hard, flat surfaces can lead to problems, including bunions, as there is no supportive structure for the foot. Kanner explains:

"It's been a huge [trend] lately, in the last, I'd say 10 years, to be wearing barefoot minimalist shoes, or no shoes. No shoes is fine if you are out in nature. I love grounding. We all know that there's an exchange of frequency from the earth into our bodies, and that's great if you are outside ... in sand, in grass.

However, our society is not built like that. We are not walking outside in grass and sand all the time. We are walking on flat surfaces, and the problem with that is, our feet have arches, and we need to be able to give [them] the proper contact with the ground.

It ends up actually just slapping the ground and not creating that proper movement, range of motion in the foot, where we should have pronation, supination, pronation, supination. When we're missing that range and that flow, it can lock up your neck. It can lock up your rib cage.

Wearing a specific shoe can open up that ability to have better range of motion at the feet, which can transfer up the chain. It's a really hard topic for people because the minimalist shoes have a great marketing scheme. They're saying our ancestors were barefoot. But you have to think about the context of that. They were not walking on pavement all day long in cities.

They were outside in nature, where the foot's ability to pronate and supinate was still there because nature is uneven surfaces. So I want to get across, it is OK to be outside barefoot if you're walking on an uneven surface on the beach.

But if you are in society and you're walking in barefoot minimalist shoes or no shoes at all, and you're having pain or symptoms ... hormone issues, et cetera, a shoe with proper ability to ground, the sensory ability to ground, is going to most likely, almost always, make a positive change for that person's well-being.

When I say the shoe gives the brain the ability to sense the ground better, I'm talking about certain aspects of the shoe ... A lot of shoes lack what we call a heel counter. A heel counter is the back of the shoe that grabs the heel and you can feel it. If it's hard, it's going to hold the heel in a better place, which is going to position the talus bone, which sits on top of the heel to align the body upwards in a better position.

Feel a barefoot shoe. There's zero heel counter there. Then that person's heel, calcaneus and talus, is going to go in whatever position the brain wants it to go in ... That's one component of the shoe. The other component of the shoe is the arch. When you think about walking on the beach, when you're putting your foot in the sand, there's sand that comes up to solidify [and] ground that part of your arch.

You don't have that when you're walking on flat surfaces. You're just slapping your foot into the ground. The arch is getting no feedback. I see a lot of people enter a more parasympathetic state when you just put an arch in their shoe. So those are the things we look at with shoes."

How Your Shoes Can Aggravate or Ameliorate Bunions

The issue of proper footwear is so important for posture that PRI publishes an updated [shoe list](#) every six months or so to help practitioners and patients find the ideal shoe. PRI also shows you how to test and assess your own shoes. I ended up going with the Brooks Dyad with an extra-wide toe box.

"When I change the shoes on people, they can't believe it because it's such a simple thing you wouldn't think about ... If they're in a minimal shoe, that is a big

red flag for me as a practitioner. It's something I need to address to get their body to be able to relax and get into that calm state to combat whatever they're dealing with," Kanner says.

"Now, what you talked about with your bunion is really interesting, because bunions specifically can happen on the right or left foot. They're different and should be treated slightly differently from side to side.

This is something I think chiropractors, PTs, et cetera, movement professionals, don't always know about the body, but we are asymmetrical, so we need to be treated as if we're asymmetrical. We have a diaphragm on the right side that's bigger and larger, and it attaches lower into the lumbar spine compared to the diaphragm on the left side.

We have three lobes of lung on the right and only two on the left. And we have a heart that sits on the left chest wall, which keeps that whole chest wall hyper-inflated. And we have a, on average, 3-pound liver on the right side of our body. Because of this internal asymmetry, we're going to see slight changes in how that person feels and moves.

When I see a bunion, in general, I know that person is most likely lacking an arch of their foot. A bunion is when the toe is coming inwards towards the other toes. That person's ability to feel the ground with their arch is going to be limited most likely, especially if it's on the right foot.

When I give that person an arch where it should be, and if they're not normally sensing that, we don't necessarily see a huge decrease in the bunion. Maybe with time. It's not an immediate change because it took time for that person to get a bunion in the first place. But we see major changes in that person's brain's ability to feel their feet on the ground.

Somebody with a bunion has really lost that ability to pronate, which is to flatten the arch into the ground and then use their right glute to push off and get the body weight to the left. When I see bunions, I know that there have been bony

changes to adapt to somebody's gait pattern or postural breathing pattern. Gait, posture and breathing are all tied together."

In my case, the bunion is on my left foot, and Kanner gave me arch support for my right foot. The reason for this is because bunions on the left suggests the right foot is not pronating properly. Added arch support allows the right foot to flatten and push off the ground properly, which in turn facilitates the proper movement of the left foot.

I also wear a spacer between the bunion and the second toe to keep them apart and to help the bunion from worsening. Another device that seems to be working quite well is a brace that has a steel bar on one side and a Velcro band that pushes the big toe out medially.

There are many corrective devices out there, and all are not ideal for every person. Ideally it would be best to have a professional test you to make sure it has the desired effect in your particular case. But if that is not possible trial and error has limited downsides.

A Holistic View

What sets this physical therapy apart from others is that it takes your entire medical history into account, including dental and visual issues. Things like eyeglasses, LASIK surgery, dental implants and tooth extractions that have not been compensated for can all have significant impacts on your sensory experience, and hence your gait and posture, which in turn can result in pain syndromes.

For example, dental work can affect your bite (how your teeth touch), which affects your cranial and cervical posture. If teeth are pulled and not replaced with an implant, your brain may not be able to determine where your center of gravity is, causing your body to overcompensate to one side or the other.

"If I hear that someone has had braces three times in their life, I know that there's something going on with their body. It's not the teeth that keep shifting,

necessarily. It's the teeth that are trying to find center because the body doesn't know where the center of mass lies," Kanner explains.

"So, I treat the common things that all practitioners treat. Back pain, neck pain, shoulder dislocation. I'm also treating a lot of POTS, dysautonomia, dystonia. So, a little more neurological conditions ... People that have had dental history, vision history, major head injury history, I tend to see that they come with more high-level neurological conditions.

And then I have practitioners I work with because I'm not a dentist and I'm not an optometrist. I might know a little bit about those specialties, but I leave that to my practitioners. But I'm the person who decides, OK, after five sessions, this person maybe needs to go to my optometrist because I can't figure out why their body's not staying centered."

One of the fascinating things about it is that as your posture is realigned and your center of gravity restored, your vision and teeth alignment may spontaneously change almost instantly. I ended up with a new eyeglass prescription after my first treatment.

Asymmetry and Flow

As explained by Kanner:

"PRI takes information from optometry, ophthalmology, from dentistry. A lot of what we learn is craniosacral stuff and osteopathic medicine. They've taken bits and pieces of all these professions and meshed it together to understand human asymmetry and allow us to learn how to flow internally.

It always comes back to the brain ... but it's hard for people to totally understand that. It's hard for dentists to grasp it. It's a little easier for optometrists because of what they learn in school.

But when you're telling a dentist, 'I need better contact on this right canine in a dental appliance so that this person can relax in their body,' the dentist is like,

'What are you talking about?'

Ultimately, the whole goal of postural restoration is to give that person better grounding in their body, teach them how to breathe, and then it's neurology. You're playing with signals going into the brain."

A Sample Case History

To give you an idea of what postural restoration can do, here's a recent case Kanner worked on. A woman in her early 20s came to see her for knee pain, low back pain and nervous system dysfunction. She was having fainting episodes and struggled to get through the day. She also had light and sound sensitivities and wore glasses.

"I knew maybe that there could be something wrong with [the eyeglass prescription]," Kanner says, "but I waited until about four sessions in. PRI techniques are very funky-looking techniques. We use balloons, we use kazoos. What we're doing is we're putting the body into a position that compresses one side and expands the other.

In order to get optimal airflow, we are typically compressed on one side and expanded on the other, but we are reversing it with these techniques. So it's uncomfortable. I'll tell you to go into a position that you do not own and say, 'OK, now breathe [into] a balloon.' It's really difficult.

She got pretty good at my techniques. I got her into a good space, but she was still having fainting episodes. She was even having random vomiting. She was into running marathons, but she wasn't able to run.

So, we did an optometry appointment and her center of mass was so far over to the right that we had to give her something called the prism to pull her back to center. So we pulled her left, but really it pulled her center. Along with my techniques, working together with the optometrist we were able to change the nervous system regulation symptoms she was having, so that was really amazing.

The prism giving her that feedback from her eyes to be able to see the world slightly differently, because she thought her center of mass was so far over to the right side.

Giving her that prism is not a long-term solution. It's short term. In six months we're going to take her off those glasses. She's going to stop wearing them and her brain will now know where center is. She has no knee pain, and she's running a marathon at the end of November.

She too was in a barefoot shoe. I got her out of that very quickly. She was like, 'I only was ever running in running shoes, but now I'm wearing them all the time and I can't believe the difference.'"

The Hidden Risks of LASIK

In the interview, Kanner also discusses how LASIK eye surgery can trigger unexpected problems. One of the main problems is that if it tattoos a permanent prescription in your cornea that if it's not wrong at the time, it will be at some point in the future.

The procedure locks you into visual dysfunction. With glasses, you're not locked into one prescription. You can easily change it and get new glasses if it turns out that your symmetry was off.

"The optometrist doesn't know about this asymmetry, but we tend to see people that are very over-corrected in their eyes," Kanner says. "I'd say a lot of people in glasses are over-corrected, which can elicit other problems. So, with that, we need to first get the body even, and then we redo the eyes.

Now with LASIK, they're taking a prescription that you've been consistent in for four or five years. But just because it's been consistent does not mean that it cannot go down, or that it is the right prescription for you.

So, even for me, I had the same prescription for about four years. They told me I could get LASIK, but I just liked wearing glasses. I think it's fun. So, I didn't, and

I'm very glad I didn't because I was over-corrected by over a diopter and a half in each eye. As I've done PRI, my prescription has gone down.

Now, with LASIK, they're changing the shape [of your eye] and they're gluing you to whatever side of the body that you prefer, that you're dominant on. Especially if you haven't worked with a PRI provider to get you out of that. And they don't always do the proper testing prior to LASIK.

So, if there is an actual visual discrepancy, if there is an eye turn problem that has never been looked at, you can have a lot more issues. So, what do you do if you've had LASIK? I recommend [to] go see a postural restoration provider, and then you might need glasses to change your prescription in the other direction if you're feeling chronic pain anywhere."

The Importance of a Well-Connected Bite

Similar issues can emerge from dental work. As mentioned, having a tooth removed, wearing braces or having multiple crowns installed will change your bite. In some cases, it can cause an open bite on one side, or a crossbite.

When your bite doesn't give proper canine guidance or proper molar contact, or if you're missing teeth, your neck is forced to work harder to stabilize and stay centered over your body. Frequently, you end up shifting your center of mass over to the dominant side. In cases like this, Kanner will work with dentists to create a bottom jaw appliance to restore proper contact between the upper and lower jaw.

"That device is like an eraser for the brain, so it erases the normal bite that person has. When you're sleeping or working out with that [appliance], it can really make you feel so much more grounded, because you have a floor underneath your feet ... and your jaw is your other floor.

Not everybody needs a dental appliance. Not everybody needs a new optometry script. But the people that really do need it, if they're in pain for a long time, they're not going to get away with not having it."

Guidance for Those With Sleep Apnea

Sleep apnea is a growing problem, and postural restoration can be helpful in this situation as well. Most end up being prescribed a CPAP machine, but that's really only a temporary solution. It doesn't address the underlying problem.

"My take on a CPAP machine is, if you can't breathe laying down without one, well, then you shouldn't be forcing air down your throat," Kanner says. "I think they need to see a posture restoration provider and learn how to breathe, learn how to expand their chest ... I think we need to teach people how to breathe better ..."

The more dentists and orthodontists that are educated on postural restoration, the more they can work together to help patients, because I really think that when you're forcing air down someone's throat ... you're not getting proper flow at all within the body ...

I've had success taking people off of [CPAP]. I had a patient – this was an amazing case – with very narrow airway, pretty strong glasses prescription, trauma, head injuries – really the gamut of everything.

We ended up getting her a dental appliance, we changed her eye prescription, we adjusted the dental appliance, changed the eye prescription. Eventually I was like, 'Why don't you try mouth tape with your dental appliance in at night? Try to stop using your CPAP and just see [how it goes].' She was having 55 episodes an hour where her breathing stopped.

I have the chart of the day she started mouth taping. The week she started, it went from 55 to about 13, to about five an hour. Anywhere under five is normal. It was amazing, and that happened within a week."

Mouth taping is also recommended if you snore or tend to breathe through your mouth while sleeping. All you do is simply place a piece of paper medical tape across the length of your lips at night. Don't use any kind of heavy industrial tape that will damage

your skin. Kanner recommends MyoTape. Inexpensive medical paper tape is also very gentle and easy to peel off.

"Just be careful with kids. But at the same time, kids in their developing years, if they are mouth breathing it's going to cause a problem because their faces are going to elongate. They're going to use accessory muscles to breathe. It's not great. [Mouth taping] is a very quick change that can elicit a wide array of changes within your system, so it's an amazing intervention that anyone can try at home."

Want to Learn More? Here's How

If you're a dentist or optometrist and want to learn more about postural restoration and how you can incorporate that into your specialty, consider signing up for PRI's vision course on forward locomotion, or the dental class on cervical occlusion.

Other practitioners — chiropractors, athletic trainers, physical therapists and personal trainers, for example — can take any of the courses, starting with the three basic courses. Information about PRI's programs and courses can be found on posturalrestoration.com.

"Now, the courses are so in-depth that most people take them twice. There are three basic courses, and I've taken one of them three times and one of them twice ... That's typical. So, just know going in, it is a commitment. You're committing to learning a whole language and a whole new way of looking at the body," Kanner says.

"For practitioners, especially optometrists and dentists, if you're interested in this, I would recommend going on the postural restoration website, look at 'Find a Provider,' and connect with some of the providers in your area. We're establishing a huge hub in New York. If you're in New York, please reach out to me. I would love to include you in this hub.

But I know there are other hubs. There's one in Texas. Of course, Nebraska. In Seattle there's a good amount of practitioners. California and San Diego is starting. There's one in Minnesota, Atlanta and North Carolina.

There are only about 200 PRI-certified practitioners. There are not that many of us so we are trying to collectively get the word out about [postural restoration]. I really think it's life-changing for people."

If you're interested in trying postural restoration, you can use [PRI's provider directory](#) to locate your nearest practitioner. Kanner's practice is in New York City. You can book a consultation through her website, aleenakanner.com.

Sources and References

- ¹ Posturalrestoration.com Basic Concepts