Introduction to Pelvic Pain

Hi, everybody. I'm one of your host, Dr. Betsy Greenleaf. And this is the Solving Sexual Dysfunction Summit. In this episode, we're going to talk about pelvic pain into a quick understanding about why pelvic pain or pain in general happens.

No pain is unfortunately a very debilitating condition and as many as 30% in literature. But I think that number is much, much higher. Suffer from pelvic pain issues, which in turn spill over into sexual dysfunction.

Now let's take a look at why having pain to begin with. I mean, pain is something we actually need. It helps to keep our body safe. I mean, just imagine.

How would it be if you happened to just lean on a hot stove and didn't pull your hand back right away? So we need pain to keep ourselves safe. So it's an unpleasant sensation induced by a noxious stimuli.

So noxious stimuli. Something that's irritating is it? Heat is a chemical. Is it something that's being compressed? Is it a nerve that's getting irritated?

Is it something that's like out of location where it's not supposed to be? So the purpose of the pain is it's supposed to be a protective mechanism to get us away from whatever this noxious stimuli is that's causing the pain.

And when we have pain, there's a whole bunch of processes that are going on in our body that we don't even know that's happening. So let's say, for example, we get a splinter and that splinter enters our finger and we go out.

So we first of all, we're going to pull away from that noxious stimuli, but then you're going to have all these chemicals that are going to start coming in.

You have mast cells that cells are what give you that redness. They give you that swelling and that redness. Kind of like when you get a mosquito bite and you all of a sudden you get that that redness and that bump.

The idea of a mosquito bite is that swelling and redness that is being triggered by those mast cells is holding everything in that area. So those proteins from the mosquito bite can't get into the rest of your system or or bacteria from that splinter is not getting into the rest of your system.

How Pain Signals Work

It's your body's protective mechanism. And unfortunately, sometimes, especially with chronic pain, those mast cells and those inflammatory reactions kind of get a little haywire.

They get that. They get their their messages crossed and things get a little crazy. So when we have there's different things that can cause these noxious stimuli.

It can be actually these chemicals, the mechanical injury, but also inflammatory cells that have been triggered. Now, can themselves cause more of a noxious stimuli cancer cells, tissue injury, breaking down of other tissue, things that are causing inflammation can all now be adding to that pain.

And so we have a couple of different nerve fibers to that sense pain. We have C fibers, A fibers and delta fibers. So we have a beta of fibers and a delta fibers.

And what happens is these nerve fibers are separate in our system. Some of them sends heat, some of them send pressure, and some of them sends pain. One of the problems that we have is they live very close to each other.

And when they are constantly being stimulated and they actually those nerves will actually cross. We get crossing of our wires. And so things that we might sense as pressure as temperature may now be sensed as pain.

And once again, here we have A Beta fibers are those non noxious mechanical stimuli. So that's when we feel like something'stouching us or the A delta fibers are from mechanical stimuli.

If I poked you with a needle or hit you with a hammer and the C fibers are responding to chemical or heat, but these fibers will get their messages cross the re wire.

And unfortunately, the messages get all messed up. Now, what also happens in chronic pain is in this example, let's say there's a noxious stimuli. So the top where you see the lightning bolt is that stimuli like, let's say a hammer getting hit on your foot and your nerve cell.

And this is an example. The nerve cell is going to sense that and it's going to travel down into what's called the dendrite and then up into the brain.

And on the other side, you can see these little bars. The bars show how many receptors are being stimulated by that noxious stimuli. And at first it's just a couple.

But then what happens is over time, when pain is left alone, it is allowed to become chronic. You actually get a build up of receptors in your nerves.

So the nerves from the site where you have the irritation all the way up your spinal cord into your brain, you actually start developing more pain receptors.

And when you have those more pain receptors now you get to the point where you don't even need a stimulus to trigger that sensation and the pain because your spinal cord, your brain is telling your pain when your hand is going, no, I don't have pain.

Nobody's hitting me with a hammer my foot. Nobody's hitting me with a hammer anymore. So let's take a look at that. So for pain to become chronic usually has to be some sort of stimuli that's happening on average, but everybody's different for at least three months.

So three months I come up to you and I have a hammer and I'm hitting you with that hammer. And every time I hit you, you're going, ouch, ouch, ouch. Of course you're going to pull away.

But let's say I don't take the hammer away and I keep hitting you over time. Now your receptors in your spinal cord, in your brain have now upregulated.

You have more pain receptors. The more pain receptors, the more sensation of pain. So that pain is now going to get worse and worse and worse. And it's not going to feel the same as if it were when you first got hit with that hammer.

Now, three months later, I come and touch you with a feather. You're going to go out. That hurts, because now your nerve fibers have gotten rewired. They're got their messages crossed and they go, Wow, something is touching me.

And I've been hit with a hammer for so long. It's almost like your nerves have PTSD. They post-traumatic stress disorder of the nerves, they go, Oh my God, I don't know how to deal with this.

Chronic Pain and Nerve Sensitization

It's it's not a feather. I'm getting hurt. I'm getting burned. And so the nerves get confused. And it also shows how we perceive things. Pain and perception go hand in hand.

So we're bombarded all the time with multiple input. Like our brain is constantly it's almost like a New York street. So let's take a New York street, for instance, and the things that we focus on now become true or become elevated in our perception.

So, you know, when you're walking down a busy street in New York, there's so much there's a lot of stuff that you're going to miss. But if you're somebody who has, let's say, an eating disorder now, all of a sudden you turn out all the extra stimuli and you're just going to pay attention to the food, food cues.

All right. Let's say or I'll have alcoholism or have a drinking disorder. That busy street, this is your brain. All that stimulus coming into your brain.

Now your brain goes we I'm going to tune out all the other things and I'm just going to pay attention to these stimuli having to do with alcohol or let's say there's an underlying sex addiction.

We're going to tune out all the other stimuli and just pay attention to the things that stimulate our our sex addiction. This is how our nerves work. So after a while, the nerves will only pay attention to the pain and also this affects our functioning of our brain.

We actually start to become hyper aware of things that are going to cause us pain. And this starts affecting our mood, causing depression, anxiety. Maybe we start catastrophizing things.

A lot of times when I've talked to chronic pain patients over the years, everything's a big deal. And this is not because you're choosing to make everything a big deal in your head.

It's just your brain is starting to pay attention to all the threats. We start to contextualize things and start to believe and have expectations. Let's say we have expectations that sex is going to be painful.

Guess what? Sex is going to be painful because the brain is starting to interact with in the world from the lens of pain. So there's actually ways and we'll talk about this a little later to turn off those triggers in the brain.

And then we also just add, when it comes to pain, you have activation of the glial cells. So when you get more of those receptors, you have more inflammation in the actual nerve cells, which can add to inflammation in the brain, which can add to symptoms like insomnia, chronic fatigue, depression, other inflammatory conditions.

We can actually cause leaky gut, which can then contribute to more inflammation in the body and this all affect our sex hormones and even start to affect our intellectual level and when left too long with chronic pain.

So this is chronic pain is not just the pain itself. There's so many more factors that go into this. And so some of the major symptoms of chronic pain are not just the pain itself, but the insomnia, the depression, the fatigue, the lack of motivation there really affects quality of life.

We also see in anxiety, anorexia, see a hopeless hopelessness and something called Aladin am Aladdin is is that feather it's when we touch somebody with something that's not typically a painful stimuli.

Now the body perceives it as painful and we're affecting that what's called a hypothalamic pituitary adrenal complex, which is responsible for all your hormones.

So now we have a lowering of sex hormones. We have a little and then we have a rise of cortisol and stress hormones. And these tend to be these hormones affect sleep reproduction, sex, drive growth.

They can suppress the immune system and they actually have effects that start to break down the body and break down muscle. And then from a behavior standpoint, patients who are experiencing chronic pain start to now not only become avoidant of the pain, but they now start to become emotionally and socially reclusive.

They start to have in mobility problems and maybe become even housebound or bedbound. And then this

becomes a vicious cycle. So we start off with the noxious stimuli, and then that will cause in the body muscle spasms, splinting inflammation.

And that muscle spasm and splinting is going to decrease blood flow and that decreased blood flow now becomes more of a noxious stimuli. So I see all this all the time in pelvic pain, where the pelvic muscles will tighten in response to something that's causing an irritation.

Then and then we get that muscle spasming is the body trying to protect itself. But that muscle spasms instead of protecting actually causes more harm.

And so one of the first things we need to do other than get rid of the noxious stimuli and reverse the effects on the brain and nerve cells, is that we've got to address the muscle spasm in the splinting.

So then we also see this vicious cycle now be coming together where people start to avoid certain activity, especially sex. We tend to avoid sex and now we start to have because we avoid sex, there's more of stress surrounding that.

And then there's all more anger, anxiety, fear affecting our mood, affecting our relationships. And these cycles just keep going and going and we just need to stop the cycle.

Brain, Mood, and Pain Cycles

When it comes to sex and intimacy, it's that anticipation and creating fear and anxiety. So if somebody believes that sex is going to hurt, their body is going to subconsciously tighten up in women, that's going to be bad your muscles and then it's going to be pelvic muscles.

And then that's going to make that sex painful. And then painful sex now reinforces the tightening of those pelvic floor muscles, and then the muscles kind of get stuck in a spasm and then that person avoids into, say, intimacy and now develops a lack of desire.

And the circle keeps going around and around. So this is what happens during chronic pain and chronic sexual pain. But too often in traditional medicine, we're looking towards the pelvis as the source of the chronic pain when we need to look outside the pelvis because there are so many different factors, there are going to be neurologic causes, infectious causes, inflammatory, muscular chemical or dietary irritants.

Chemical meaning could be coming from irritation. Then the toilet paper you're using or the what you're washing your your clothes in the chemicals on your in your soap can cause irritation to that delicate tissue irritants in the gut.

The food inflammatory foods can be causing this inflammation. Even from that psychological standpoint, when we're constantly under stress, that's going to increase our cortisol levels, increase leaky gut and add to more pain conditions.

And sometimes we just don't really know, especially if the pain has been going on for so long, that noxious stimuli is no longer there. Now, we've we're dealing with a system who's just got it's just cut, its wires crossed, and we need to reset and reboot the whole system.

So some of the associated features that can happen with chronic pelvic pain is not just the pelvic pain, but it can present as urinary symptoms anywhere from urinary retention, slow flow, urgency, frequency, recurrent urinary tract infections, but also constipation or abdominal pain.

And there are some other associated conditions, things like interstitial cystitis, which I don't believe is its own condition. I think it's a symptom of a larger inflammatory process of fibromyalgia.

You can start getting inflammation and pain elsewhere in the body, irritable bowel, endometriosis, even I've seen with chronic pelvic pain, people have temporal mandibular joint disorders.

So pain up in their their joint, their jaw, migraines, headaches, back pain and other associated chronic symptoms. So I think the biggest thing is not all pelvic pain is from the general organs.

And we get so focused on the general organs and it's not necessarily coming from there. We often see it coming from leaky gut, neurologic conditions, herniated discs.

I can't tell you the number of orthopedic conditions I have found that people present not with pain in the back or the hip or even in the cervical spine, but present where the nerve endings are feeling that sensation in the pelvis, dermatologic conditions and even allergies can all present as pelvic pain.

So we really need to look and we need to look under every single rock. When it comes to the gut brain function, we know that leaky gut. So the gut normally is like a coffee filter.

You know, you've got your coffee grounds and you pour your hot water on it and it goes through the filter and on the other side it comes. It's nice coffee, but yet when you have leaky gut, the gut becomes inflamed.

For whatever reason. That's inflammatory foods, drugs, stress, antibodies, different things with bacteria or certain bacteria in the gut. And now we get basically holes in that filter.

And so now we pour that hot water over that coffee, those coffee grounds, what comes through on the other side? Coffee grounds and coffee. And so you go drink your coffee and you don't recognize it as your nice cup of coffee.

This is how your leaky gut is recognizing food. So when you eat food, it normally it should filter through your system as nutrients and your body recognizes as proteins and amino acids and vitamins and minerals.

But when you have leaky gut, you're actually getting small particles of food that haven't broken down to its basic parts, leak through the system, and now your body goes, that's not my food.

But that's I don't even know what that is like. You eat a hamburger, it's not going to go like, Oh, look at all the proteins in amino acid. It's going to go wheat.

There's a piece of hamburger floating by, and I think that's a foreign invader and that's going to go attack that hamburger. And this is where we can develop food sensitivities.

You may develop food sensitivities to cow me or you could actually your body get tricked and go, wait a minute, I'm going to go attack that and oh, wait, that looks a lot like muscle.

So now I'm going to turn and attack myself. It's going to attack the muscle. So this is where we get autoimmune conditions. So just a couple other simple things that specifically can cause pelvic pain that need to be looked into is something called.

TARLOV Cysts. These are cysts that develop low in the back, in the spinal cord. And I've seen many of these go undiagnosed in patients with pelvic pain that we've later found labral tears.

These are tears in the hips that can happen from just activity, from childbirth and you don't get the pain, you don't feel the pain in the hip, you feel in the pelvis like this, maybe in the vagina or in the scrotum.

I can tell you, I had a car accident years ago and having treated patients for over 20 years in pelvic pain, I had some herniated disc to my low back and my back wasn't bothering me.

I was getting severe pain into my right labia. And I go, Huh?

Pelvic Pain Causes Beyond the Pelvis

Well, look at all the things I've been teaching for years as true. Like this, this. This is where my body is feeling the

pain. So we need to look outside of the pelvis.

There could be things called performance syndrome where muscles in the buttocks area are pinching nerves and disorders of the toxic. So the coccyx is your tailbone. And so what?

Sometimes people from falling on their tailbone, the tailbone gets stuck in a position where it's now impinging and stretching nerves and they don't feel it in the tailbone, they feel it in vagina, scrotum, penis, and you can get pelvic pain that way and there's tons of different neurologists your practitioners should be and this is a female pelvis but should be going around and tracing where the pain is being sensed and where that pain is sensed is going to correspond to a place in the back where those nerves are coming out and that can be in can be traced.

So there's so many different things. But when it comes to treating, we also need to look at what other things are people being exposed to. And interesting enough anymore.

Unfortunately, we often put patients in the past, not me, but other doctors unfortunately have unfortunately used drugs like narcotics to treat pelvic pain or chronic pain.

But unfortunately, I will tell you, one of the problems of of these narcotics are that they actually worsen pelvic pain long term. They do a couple of things.

They reset the thermostat for pain in your brain so that you feel pain and a much lower threshold. But they actually will cause inflammation of the nerves when used long term.

Now short narcotics were only ever meant to be used short term. This might be for like an injury or a severe trauma or a surgery, but never were they ever meant to be used long term.

But we're also seeing things like viruses, COVID, as has aggravated a lot of pain conditions, bacteria, trauma. So there's a lot of different factors that can add to this pain.

So and in pelvic floor patients, a lot of times it is that muscle spasming that gets blamed as the cause of the pelvic pain. But if you remember going back, the muscle spasms just the body trying to protect itself.

So this is why sometimes the pelvic spasms gets treated, but the pain doesn't get any better. So this is really so you really need to be looking at vaginismus or vulvodynia or dental neuralgia.

These are some terms that people may have heard many different pain syndromes, and they're just a symptom of a larger problem. And we need to look for a larger problem.

So when it comes to treatment and this is not an all inclusive lecture, I really just wanted to touch on people. There is hope, but it is kind of like a giant spaghetti pile or untangling a giant thing of wires or or women.

You guys have had necklaces that have gotten untangled. It takes a while. It's not a cookbook thing and you need a big team to treat pelvic pain. So when it comes to pelvic muscle spasms, just like anything, let's say you have a spasm in your leg.

He stretch a massage. Well, the vagina pelvic floor, you got to get a little bit more creative. So this is where soaking in a bathtub, putting heat down below, but making sure you don't burn yourself.

Not doing kigali's doing what's called reverse key goals where you figure out which muscles you need to tighten, but then relax those muscles. Massage with either a self, a partner pelvic floor physical therapy great for this stretching can be done with dei leaders or vibrators in men.

These have to be put into the rectum, fiber products and management of constipation and then addressing the sexual dysfunction. But I think the biggest thing that we often forget, especially once pain becomes chronic, is the pain is no longer in the place that you're feeling.

The pain. The pain is now in the nerves. And so we need to really exercise the brain and use the power of the brain to reverse use the power of the brain to reverse the pain, which is it's just like Dorothy in The Wizard of Oz.

You have the power inside of you. It's just having to tap into that. And this is where they found using apps like smartphones of different to try to trackers in diaries hypnotherapy guided imagery mindfulness meditation great for exercising and relaxing the brain in fact their studies where they used virtual reality and they took a patient whose brain you can see on the top that someone who has chronic pain and they did not expose them to virtual reality.

And then they took they exposed them to an eight week program of virtual reality and their pain improved. And we saw markers in the brain that improved.

Treatment Approaches for Pelvic Pain

This is actually something that can be easily done with other things like hypnosis. So once again, they took a patient who had a physical pain reading of about a five and you can see what areas of the brain light up and then put them through hypnotherapy and their pain improved and that areas in the brain improve because these techniques don't need any kind of fancy, you know, expensive medications or surgeries.

This is using the power of the brain to downregulate the pain receptors so we can never deal with chronic pain until we deal with the brain first. There's no acupuncture.

Acupuncture has also been shown to affect the brain. Now that's a physical treatment, but they've been shown that from baseline to an eight week follow up.

After acupuncture, people with chronic brain pain, their brains actually improved and returned more to that of a healthy brain. So to top is a healthy brain.

In the middle we have the people who have chronic pain in their brains actually return more back and actually even better than the healthy brains in meditation.

I think this is really, really if I had to stress any treatment over anything, the power of meditation, not only is meditation have been shown to help with the microbiome and heal leaky gut, but we can actually reverse pain with meditation alone, using things like chiropractors, osteopathic and many other treatment, trying to get the body in alignment because the body is going to keep going out of alignment because those muscles are going to pull out of it out of place.

But combination of massage and and manipulative therapy to get things in alignment, we'll get things to say and also will then help with the nerve pain, the you know, I'm really going to kind of skip over this really quickly because I'm not a big person to recommend pain medicines for this.

The biggest thing is to stay away from opiates. There is a lot more data now coming out about the use of psychedelics and and chronic pain, which in some areas are legal and some areas are not.

But there are some big studies going on at major universities using psychedelics like mushrooms and actually there's there's tons there's tons of actually other lectures.

If you actually want to watch a really good documentary, go to Netflix and watch How to Change Your Mind by Michael Pollan. It's a very interesting documentary on the use of psychedelics medically, but antihistamines.

We were talking about how those mass cells cause inflammation. And a lot of times we're not we're not forgetting to use antihistamines or antihistamine firms like antihistamine herbs or things like Berberine can help with that.

There's also antihistamine supplements like D. O., which is an enzyme that breaks down histamine in the diet, decreasing histamine triggers in the diet.

Certain foods, especially proteins, especially cow meat, can be high in histamine, so affecting histamine. And then when it comes to oral medications or even I like to use supplements, l-arginine and uses only in conjunction with your doctor, but they are often used for erectile dysfunction.

But we forget they're not they're not a sex pill. They're not to put you in the mood pill, there are blood flow pill. And so these pills can actually be used.

And things like L-Arginine, which is a supplement, can be used to drive blood flow into the pelvis, trying to get those muscles to relax. Because remember, those muscles are tightening, decreasing their blood flow and causing more pain.

So if we can get the blood flow into that area, this can be something that can be used for that. And then there's a whole bunch of different types of topical compounded medications and muscle relaxers, topical anti-inflammatories that can be used, trigger point injections.

And these are all things that need to be done with health care practitioner. But they found that just the act of sticking a needle into a nerve, I'm into a muscle that is spasm will break the spasm.

So that's in something called dry needling or trigger point injections that can be done by a practitioner. And that's what we say is can be either done wet or dry needling wet means are you actually injecting some other kind of fluid in there, like a lighter cane, which is an agent or a steroid or something more holistic, like a product called like Tramadol, which affects the way the mast cells and affects some of the other inflammatory processes, nerve blocks also.

And these are often done by pain management doctors, and they can be done in a number of different places. And just basically, if we can if we can just kind of calm down and turn off the nerves or a little while, sometimes we can reverse the pain.

Botox. Botox, not just for your face, is actually a great muscle relaxer. And it's often used in pelvic pain, chronic pelvic pain conditions where we can just break the spasm long enough.

Sometimes that can reverse the pain. The thing to remember with this is if the underlying noxious problem is not being addressed, let's say if it's a leaky gut, it's going to come back.

So these lot of these treatments are used as more symptom management to kind of temporarily get things going. And then once we're once we've gotten some relief, then working with the body to try to figure out where else can we make some changes?

Neuromodulation is kind of interesting. It's kind of the idea the brain can only pay attention to one thing at a time.

Mind-Body Strategies and Closing Advice

So in this little train track picture, we got the train with the pain and so if the pain is going through, it can only pay attention to that. But if we give it something else to pay attention to, it won't pay attention to the pain.

This is where things like electrical stimulation can come into place. This is where using tens units can actually decrease the perception of pain. Using a little just electrical pads on the back to see if it's a back, for example, 30, 60 minutes, 15 minutes a day.

Just, you know, something little. She will get will confuse the nerves. And the nerves won't be able to pay some attention to the pain. And there are other medical treatments where there's acupuncture treatments where we can actually put acupuncture needles and hook them up to a stimulator to actually trick the body, didn't ignore the pain, kind of reboot the system.

And then where are advanced are some implantable devices that get implanted into the lower back, whether

they're things such as inner stem or spinal cord stimulators.

But those are all some of the medical treatments. And then there can be nerve release procedures. If somebody is found to have a nerve that's being compressed, we see this often in dental nerve surgery where the potential nerve or nerve that comes where you're sitting, if that's actually getting compressed, that can cause some pain.

And by releasing that nerve, we can see some improvement. Now, the problem with doing surgery is it may only be temporary because when we do surgery cause scar tissue and scar tissue can now re impinge that nerve.

So I'm really big at trying the most conservative therapies we can get diet, looking at physical therapy, looking at exercise to using meditation to effect these symptoms.

But there are a number of things beyond that. But the biggest thing is when it comes to any of the pelvic pain or chronic pain conditions, not one practitioner is not going to fix this for you.

First of all, you need a whole team and it doesn't necessarily be everybody on this, but these are some of the people that you want to think about having on your team.

The other thing you want to think about is what can you do for yourself? Health is like a three legged stool, body, mind, spirit. Everybody on these teams are only going to be able to affect them.

The body. You are going to be the one. Just like Dorothy in the Wizard of Oz. You have the power inside of you to affect the mind and the spirit. And doing things like having a hobby, doing a gratitude practice, writing down things that you're grateful for in your life, meditate, eating, visualizing what your body would look like, feel like if you were better.

This is called cognitive behavioral therapy. All these things have been shown to improve and even reverse chronic pain. And guess what? Thinking is free.

So you need to catch yourself when you're getting into that down and out, which is easy when you're when you've been in chronic pain. And we know that there are changes to the brain, the person with chronic pain actually has physical changes in their brain that makes them more susceptible to depression and anxiety.

So using the power of the brain, you can reverse this and just think you're going to look back on after knowing this information weeks, months and years from now and realize that this information made a giant difference in your lives and you have you have the power to get better.

And it will and just keep keep up fight. And you got this. And this is Dr. Betsy Greenleaf talking about pelvic pain for the solving sexual dysfunction summit.

Stick around for more great sessions. Coming up.