

The Complete Guide to Treating Post-Stroke Pain

February 10, 2017



Post-stroke pain is an unfortunate stroke side effect to cope with. And if you suffer from pain after stroke – there is a whole world of other stroke survivors who can relate to you.

So, first off, we'd like you to join our [stroke support group on Facebook](#). Having a strong support system during distressing times like stroke recovery – especially a painful recovery – can make a huge difference.

Next, we'd like to discuss the different types of post-stroke pain and the methods you can take to reduce your pain. Let's start by laying down some basic understandings.

Central Post-Stroke Pain (Pins-and-Needles)

Central post stroke pain (CPSP) affects about 12% of stroke survivors and is often described as a pins-and-needles sensation. However, CPSP can also manifest as an icy burning sensation or throbbing/shooting pain.

According to [Stroke.org](#), the exact cause of CPSP is unknown, but it's generally understood to be caused by damage to certain areas of the brain. The most important thing to understand is that central pain is not caused by something happening to the body – it's caused by the brain mistaking other stimuli (like heat/cold) for pain.

Central Post-Stroke Pain Treatment

Most sources claim that there is no cure for CPSP, but medication may help. Around 70% of stroke survivors can find relief through medications such as gabapentin and pregabalin, which are used to treat epilepsy. Some survivors also benefit from amitriptyline, which is used to treat depression.

Central pain tends to develop a few months after stroke. So if you haven't had a chance to talk to your doctor about treating your central pain with medication, it may be a good idea to reach out for help – or at least a second opinion.

Chronic Pain Warriors

If CPSP is interfering with your life and motivation, we encourage you to speak with your doctor to explore all of your options. The reality of CPSP can be very scary – unless you have the support and motivation you need to push through. We think that Bree Hogan is an excellent resource for this. Bree is a blogger and coach who suffers from chronic pain, meaning she feels chronic pain 24/7. In her post [Chronic Pain: I'm Gonna Hurt No Matter What I Do](#), Bree gives us incredible insight into exactly how intense it can be to live with chronic pain. However, the craziest part (at least to us) is Bree's still amazing attitude towards life. Her whole body sears in pain, and yet she marches on – with a smile on her face. If you're looking for support and motivation to cope with chronic pain, we highly recommend reading her blog.

Spasticity, Contractures, and Shoulder Pain

The other main types of post stroke pain are spasticity, contractures, and shoulder pain. We will discuss each one and then discuss different treatments after.

Spasticity: Spasticity involves muscle tightness or stiffness in your affected muscles after stroke. This is caused by damage to the area of your brain that controls those muscles. Spasticity can also cause your muscles to tense and contract abnormally, causing painful spasms.

Contractures: When spasticity goes untreated, it can cause your joints and muscles to become so stiff that you develop contractures.

Shoulder pain: Shoulder pain after stroke can be caused by subluxation, frozen shoulder, and spasticity.

Subluxation occurs when the upper arm bone and shoulder blade have moved apart, resulting in partial dislocation. Subluxation can be caused by weak muscles in the area surrounding the shoulder, arm, and torso.

Frozen shoulder occurs when the muscles around your shoulder are very weak, stiff, or paralyzed and can't hold your bone properly in its socket. As a result, gravity pulls down on your arm and causes the shoulder joint to become inflamed, stretched, and even damaged.

Now that you know what the different causes of pain after stroke are, let's discuss the treatments!

Post Stroke Pain Treatment

There are many ways to treat post-stroke pain. Some are more long-lasting than others. We will review the treatments for each type of post-stroke pain below.

Treatment for Spasticity (Temporary vs. Permanent)

Since spasticity is caused by tightness and stiffness in the affected muscles, your first reaction might be to get your muscles to loosen. And this is possible by using Botox injections or medication. Surprisingly, this is an indirect approach. Let us explain.

About Botox: Botox injections (or other medication prescribed by your doctor) can help loosen the stiff muscles by preventing the transmission of signals between the brain and body. This prevents your muscles from receiving messages to contract – which helps your muscles relax.

However, earlier we mentioned that spasticity is caused by damage to the areas of the brain that control the spastic muscles. The problem is caused by your brain. Therefore, by treating the muscles and not the brain, you're only treating the symptom. In order to treat the root cause of spasticity, you need to treat the brain, and you can do so with rehab exercises. Rehab exercises help retrain the brain how to control spastic muscles. Once the brain regains control, the spastic muscles will loosen.

Brain-muscle communication: To break this down even further, let's look at the dialogue happening between your brain and your muscles.

If you suffer from spastic muscles (article on 2/5/2016), rest assured that your brain is trying it's hardest to tell your muscles to relax. The problem is that your muscles can hear those commands because the communication between your brain and the muscles are impaired from the stroke. There is a way to restore this communication through neuroplasticity, which is how your brain rewires itself after stroke. And the best way to trigger neuroplasticity is with *rehab exercises*.

Permanent treatment: So neuroplasticity will fix your brain-muscle communication, and rehab exercises will initiate that neuroplasticity. While temporary treatments like Botox can provide immense relief, they are not permanent and you will have to keep going back for more treatments. **Rehab exercises** treat the root problem and provide permanent relief in the long-run.

This isn't to say that Botox should be avoided. In fact, it could be a good idea to use treatments like Botox to provide the relief you need to move, and then use that newfound mobility to get some consistent rehab exercise in.

Treatment for Contractures

Contractures are caused when spasticity has gone untreated for too long and muscles are now extremely stiff and painful. If you have contractures, then you can use splits or casts to help open your affected muscles and keep them in place. This treatment helps stretch your affected muscles. This treatment is always best used in conjunction with rehab exercises. *Because stretching out the muscles isn't re-teaching your brain how to use them.*

A great treatment for contractures could involve using splits and casts to stretch out the affected muscles, and then using that new mobility to start doing rehab exercises. If you don't think that this

method is possible for you, we encourage you to keep an open mind. This method can still work even if you suffer from post-stroke paralysis. Read [this “musicglove” success story](#) to learn how.

Treatment for Shoulder Pain

When it comes to treating shoulder pain after stroke, good positioning can work wonders. It will help reduce strain on your ligaments and prevent frozen shoulder from occurring. While sitting or sleeping, you can use foam supports and pillows to keep your arm and shoulder supported in the correct position. Be sure to avoid using overhead slings because they could cause contractures and more pain.

Subluxation can also be treated with electrical stimulation (TENS therapy) to make the muscles contract.

To treat pain due to frozen shoulder, you can use pain killers or Botox, which reduce pain and increase flexibility. These are great temporary solutions, though.

For long-lasting relief, you know where we're going with this: *Rehab exercises are a great way to retrain your brain how to use your shoulder and arm muscles and help reverse the situation that's causing your shoulder pain.*

Here's a guide that can help: “Shoulder Rehab Exercises to Alleviate Pain and Improve Mobility” (10/4/2016)

Wrapping Up

Phew! That was a lot of ground to cover. Let's cover the key highlights:

About 12% of stroke survivors will suffer from central post stroke pain, which is best treated with medication and excellent support – which you can find in our [stroke support group on Facebook](#).

The other main causes of post stroke pain are spasticity, contractures, and shoulder pain. Some temporary treatments include Botox, splints, and good support. The permanent treatment is **rehab exercises**, which retrains your brain how to use the affected muscles and put pain to rest.

We hope this article helped you understand how to best treat pain after stroke.

If you have any questions, please leave them for us in the comments section below!