# Stroke Recovery Prognosis Part 2: Physical Recovery + Treatments

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In Part 1, we discussed how to assess your stroke side effects using the NIH Stroke Scale to determine your unique stroke recovery prognosis. Now, we're going to dig even deeper into the physical side effects of stroke and how to treat them. It will help you understand what to expect as you progress on the road to recovery.

## 4 Major Physical Stroke Side Effects + Treatments

There are 4 major physical side effects that can occur after stroke. They are:

### 1. Weakness or Paralysis

The NIH Stroke Scale assesses *ataxia* (lack of coordination) of the limbs, which will determine how much movement you have in your body.

Stroke survivors with mild-moderate stroke can develop *hemiparesis*, which is muscle weakness on their affected side.

Stroke survivors with severe stroke can develop *hemiplegia*, which is muscle paralysis on their affected side.

Let's discuss treatment options for both. Treatment for mild-moderate muscle weakness:

Muscle weakness after stroke can be treated through *rehabilitation exercise*. If this concept is unfamiliar to you, then read carefully. Rehab exercise helps heal the brain by activating <u>neuroplasticity</u>, which is how your brain rewires and heals itself after damage.

This helps your brain communicate with your muscles properly again, which helps you control them better. The difference between rehab exercise and traditional exercise is that rehab exercise focuses more on healing your brain than your muscles. We will discuss this in greater detail a little later.

Treatment for severe muscle paralysis:

Muscle paralysis after stroke can be treated through passive rehabilitation exercise. Passive exercise involves using your 'good' limbs to assist your affected limbs. Although you aren't moving your affected limbs "on your own," you're still activating neuroplasticity. The more you move your paralyzed muscles during passive rehab exercise, the more your brain begins to communicate with your paralyzed muscles.

And with enough patience and hard work, you can slowly regain movement in your affected limbs; at which point you can move onto active rehab exercise (doing the exercises "on your own").

## 2. Spasticity

Spasticity refers to muscle tightness that develops when the brain cannot communicate with your muscles properly. It's important to understand that the problem is not in your muscles, it's in your brain's ability to communicate with your muscles. By restoring this communication, you can treat your spasticity. Let's dig deeper into detail.

#### Treatment:

To treat spasticity, you need to relink your brain with your muscles. This can be achieved by activating neuroplasticity through rehab exercises. Although it may feel counterintuitive, moving your muscles is the best way to loosen up your muscles.

You can also use drugs like Botox to loosen spastic muscles, but this is only a temporary treatment as they wear off and you will need to keep getting more treatments.

Rehab exercise is the long-term, permanent solution to spasticity.

# 3. Difficulty Walking

Ataxia in your legs can affect your ability to walk and cause **balance issues**. There's also a stroke side effect called **foot drop** that impairs your ability to lift the front part of your foot.

Treatment:

You can work to regain movement in your legs through rehab exercises for the legs. You can work to improve foot drop by exercising your feet, too. You can also use AFOs to treat foot drop. An AFO goes inside your shoe and supports your foot to keep it from sagging down when you lift your leg.

If you use AFOs without participating in rehab exercises at the same time, however, you may become dependent on them because you are not relinking your brain with your foot through rehab exercise. Instead, you are neglecting your foot, and eventually your brain can completely forget how to use it. This is called **learned non-use**, and we will discuss more on that later.

## 4. Difficulty Feeling Your Senses

Difficulty interpreting your senses can occur when stroke affects the part of your brain that controls sensation. If you can't feel hot or cold – or if you can't feel anything at all on your affected side – then you may have sensory problems.

Treatment:

If you have difficulty with feeling sensation (your sense of touch), then **sensory** reeducation exercises can help retrain your brain how to feel. Which brings up a really good point...

# The Best Way to Treat Physical Stroke Side Effects

Have you noticed a trend here? Rehab exercise is the #1 way to overcome physical impairments after stroke. Rehab exercise helps activate <u>neuroplasticity</u> and rewire your brain. And the best way to activate neuroplasticity is through repetitive practice.

The more you repeat something, the stronger the new connections in your brain become. It's a beautiful chain reaction that happens like this:

- The more you repeat something, the more neuroplasticity is activated
- The more neuroplasticity is activated, the more your brain rewires and heals
- The more your brain rewires and heals, the better you become

So if you're ever feeling stuck in recovery, always come back to the basics: neuroplasticity and repetitive practice. They will always help you improve.

## What About All the Other Side Effects?

While physical stroke side effects are the most apparent (because they're on the outside) stroke can also affect your cognitive and emotional wellbeing – your inner state.

In Part 3, we will discuss the various stroke side effects that are often "invisible" and how to treat them. There's more hope that many people are led to believe, so if you're looking for an optimistic outlook, read on!