



# The Unpredictable Progression of MS

by NEWLIFEOUTLOOK TEAM

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## How Does MS Progress?

Unlike many medical conditions, multiple sclerosis is often unpredictable. The way it progressed in one person can be different from how it progresses in another. So let's go through the progression of MS.

From the first episode with so-called "clinically isolated symptoms," about 50% of individuals will develop the disease within 2 years, while roughly 10% will no longer show any MS-related symptoms.

The initial episode can manifest with a variety of symptoms, ranging from non-specific numbness, tingling, and balance issues with double vision to severe muscle weakness and fatigue. Some people will have mild symptoms over their lifetime, while others will end up in a wheelchair.

Generally speaking, doctors classify the progression of MS based on four types (or patterns):

- **Relapsing-remitting MS (RR MS)** – As its name implies, this form of MS is characterized by acute attacks followed by remissions, and is usually seen during the early stages of the disease. This is the most common form of MS, seen in 80% of MS sufferers. During acute attacks, the symptoms worsen and they last anywhere from several days to weeks. After an acute attack, an individual may recover partially, or fully, or in some cases, no recovery of some functions at all will be seen. The recovery time may take anywhere from a few weeks to months. Overall, the disease does not progress (worsen) between two acute attacks.
- **Primary progressive MS (PP MS)** – In this form of the disease, there is a gradual worsening of symptoms and disability, and we don't see the relapse remission pattern anymore. Statistics show that roughly 15% of those affected by MS will display this form.
- **Secondary progressive MS (SP MS)** – Patients initially present with a relapsing-remitting form that over time (anywhere from a few months to years or even decades) evolves into a progressive MS.
- **Progressive relapsing MS (PR MS)** – This form of MS can be easily confused with primary progressive MS as there is a gradual progression (worsening) of the symptoms; however, the patient may also have acute attacks followed by various degrees of recovery. It is the least common form of MS (5%).

## Changes in Symptoms

It is next to impossible to predict how a person's MS symptoms will progress, because everyone is different, and MS symptoms are sometimes connected with the areas of the brain or spinal cord not affected by the disease.

For example, if the area of the brain or the optical nerve responsible for vision is affected, an individual will usually present with vision problems. If the spinal cord in the lower back is affected, there may be weakness and numbness in the legs that is experienced. However, sometimes the location of lesions appears to not correlate with the symptoms the person has.

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In addition, the number of lesions seen on an MRI does not always correlate with symptoms. Some individuals may have a few plaques and many symptoms while others may have several lesions and very few symptoms.

To make things even more complicated, there is no way to predict where a new lesion will form – they occur randomly – or if that lesion will cause symptoms. What is known, however, is that our body can heal itself and repair – thus, over time some plaques may shrink or disappear, while new ones may occur.

*Next page: the importance of monitoring your MS.*

## **The Importance of Monitoring Your MS**

Testing measures like MRIs are used to determine how a person's MS is progressing. It is important for physicians to continue to monitor patients with MS after diagnosis, to provide more effective treatment – regular testing helps doctors to see how well treatments are working and choose treatments based on individual patient needs.

Testing also helps to give doctors an overall understanding of how the disease progresses through various treatment options to help researchers learn more about the disease and more effective ways to treat or slow the progression.

If testing shows that a certain medication isn't working, the physician can use a more aggressive therapy to try to slow the progression of MS. However, many medications take time to start showing improvement. If it's only been a short time and you are not experiencing a reduction in symptoms, your physician may ask that you give the medication more time to work before trying something different.

MRI is considered to be the standard when it comes to monitoring the progression of MS. However, some people with MS suffer symptoms and setbacks with no noticeable changes in subsequent MRIs. Because MS is such a fluid condition, MRI is not always sensitive enough to detect smaller changes or to predict where changes may occur in the future.

Although MRIs are still necessary for proper diagnosis and effective treatment of MS, another testing may be performed in conjunction with MRI to detect more subtle changes, to predict oncoming attacks of symptoms.

A special test involving cerebrospinal fluid can help physicians monitor disease activity and the progression of MS even in patients who do not show any notable changes in MRI scans. The biomarker called Fetuin-A is elevated in those with increased MS disease activity. This may better help doctors to add or change medications for MS patients who are exhibiting worsening symptoms before any damage can be detected with an MRI.

There is another test that involves a scan of the retina, called optical coherence tomography or OCT. OCT is a non-invasive imaging technique that can show changes in nerves located within the eye. Because MS is a progressive disease that involves nerve damage, obtaining regular OCT scans can show physicians when nerve damage is increasing in the retina. This may correlate with potential nerve damage occurring in other areas of the body that are not as easily detectable.