

# Understanding multiple sclerosis



Multiple sclerosis (MS) is a disease of the central nervous system (CNS), which includes the brain, spinal cord and optic nerves. It is one disease, but its course and symptoms vary from person to person.

## Who gets MS?

MS is a leading cause of non-traumatic disability for young people.<sup>1,2</sup>

MS is commonly diagnosed between the ages of **20 and 40**<sup>3</sup>

MS is **twice** as likely in women than men<sup>2</sup>

Approximately **2.3 million** or **1 in 3,000**<sup>2</sup> people in the world have MS



## Symptoms can affect nearly every part of the body and the mind

People with MS can experience many types of symptoms.<sup>5</sup>

**90%** Up to 90% of people with MS **experience fatigue**<sup>6</sup>

**50%** Within 15 years of onset, more than 50% of people with MS have **difficulty walking**<sup>5,7,8</sup>

**20%** **Vision difficulties** are common, and a first symptom in **15-20%** of people with MS<sup>9</sup>

**80%** At least **80%** of people with MS experience **bladder issues**<sup>10</sup>

**2x** **Depression** is approximately 2x more likely in people with MS<sup>11</sup>

**2x** **Sleep problems** are twice as likely in people with MS<sup>12</sup>

## MS has different disease courses

MS is categorised into courses based on how the disease generally behaves and whether or not there is disease activity and a steady increase in disability over time.

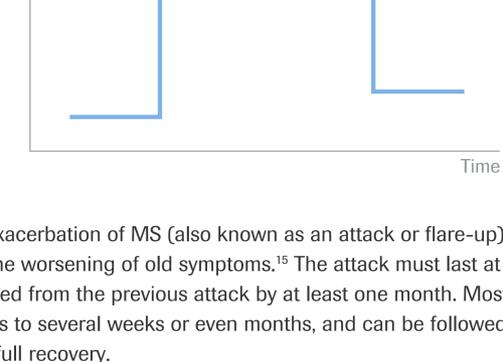
For explanation of disease courses, please visit the [National Multiple Sclerosis Society](#).<sup>13</sup>

<b>RRMS</b>	<b>SPMS</b>	<b>PPMS</b>
Relapsing-remitting MS	Secondary progressive MS	Primary progressive MS

## Disease activity can be measured

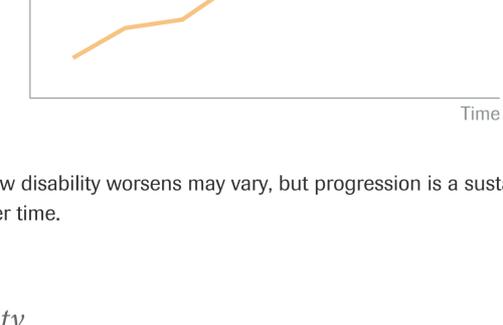
No matter what course of MS a person has, relapsing or progressive forms of MS may be active or inactive at different points in time.<sup>14</sup> Disease activity may be outwardly apparent with new or worsening signs or symptoms. There can also be underlying disease activity that is detected with special equipment like magnetic resonance imaging (MRI).

### Relapse



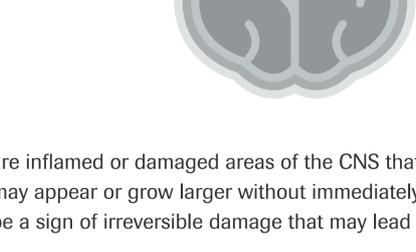
A relapse, or exacerbation of MS (also known as an attack or flare-up), causes new symptoms or the worsening of old symptoms.<sup>15</sup> The attack must last at least 24 hours and be separated from the previous attack by at least one month. Most relapses last from a few days to several weeks or even months, and can be followed by an incomplete or full recovery.

### Disability progression



How fast or slow disability worsens may vary, but progression is a sustained increase in disability over time.

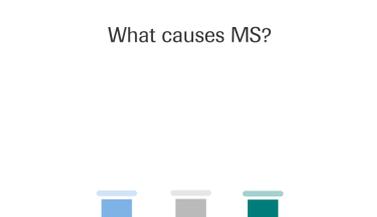
### MRI activity



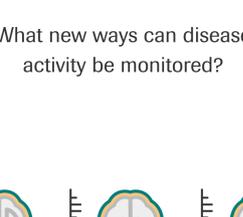
Lesions are inflamed or damaged areas of the CNS that can be seen with MRI. Lesions may appear or grow larger without immediately noticeable consequences, but can be a sign of irreversible damage that may lead to disability progression.<sup>16</sup>

## More is being done

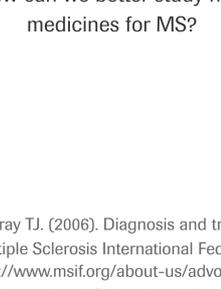
There is no cure for MS, but research continues to better understand and treat the disease.<sup>5</sup>



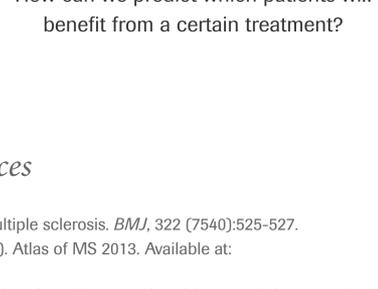
What causes MS?



What new ways can disease activity be monitored?



How can we better study new medicines for MS?



How can we predict which patients will benefit from a certain treatment?

## References

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