

# About Multiple Sclerosis

## Media Fact Sheet

### What is multiple sclerosis (MS)?

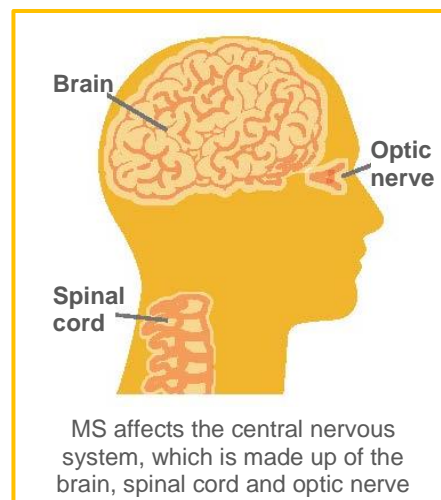
While its exact cause is unknown, MS is an autoimmune disease of the central nervous system (CNS) that causes the body to turn against itself by mistaking normal cells for foreign cells<sup>1</sup>.

In MS the myelin sheath, the covering that protects nerve fibers, is damaged by the inflammation that occurs when the body's immune cells attack the nervous system<sup>2</sup>.

This neuro-inflammatory damage can occur in any area of the brain, optic nerve and spinal cord and, over time, with repeated attacks, damage accumulates leading to permanent nerve damage, loss of neurological function and the accumulation of disability<sup>3</sup>.

### How common is MS?

Up to 2.5 million people worldwide are affected by MS<sup>4</sup>. It is most often diagnosed in younger people between the ages of 20 and 40<sup>5</sup>, and almost three times as many women have MS as men<sup>6</sup>. The incidence of MS varies geographically, and is more common in areas further away from the equator<sup>7</sup>.



### What are the symptoms of MS?

MS can cause a range of physical and mental problems including loss of muscle control and strength, balance, sensation and mental function, although symptoms vary from person to person<sup>3</sup>. Some may lose their ability to walk, and some may experience problems with sight<sup>3</sup>.

### What are the types of MS?

Relapsing-Remitting MS (RRMS)	Secondary-Progressive MS (SPMS)	Primary-Progressive MS (PPMS)
<ul style="list-style-type: none"> <li>Characterized by attacks (relapses) with worsening neurological function, followed by periods of remission where they partially or fully recover<sup>8</sup>.</li> <li>~85% are initially diagnosed with this form of MS<sup>8</sup>.</li> <li>There are several treatment options and management approaches for people with relapsing forms of MS, including injections, infusions and oral formulations<sup>9</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>Characterized by gradual worsening of neurologic function (accumulation of permanent disability) between relapses<sup>10</sup>.</li> <li>~65% of people with RRMS will develop SPMS 15 years after being diagnosed<sup>10</sup>.</li> <li>A person who has been on treatment during the initial relapsing-remitting phase of the disease will likely continue on the same therapy unless it is no longer doing an adequate job of controlling disease activity<sup>9</sup>.</li> </ul>	<ul style="list-style-type: none"> <li>Symptoms gradually get worse over time, rather than appearing as sudden attacks<sup>11</sup>.</li> <li>~10-15% of people diagnosed with MS will have PPMS<sup>11</sup>.</li> <li>Currently there are no therapies available for treatment of PPMS<sup>11</sup>.</li> </ul>

## What is the impact of MS?

MS significantly impairs the quality of life of the individual and their families<sup>12</sup>, although appropriate treatment and disease management can help reduce its impact.

- **Reduced quality of life:** People with MS experience a lower quality of life on average than those with other chronic diseases such as diabetes and epilepsy<sup>13,14</sup>.
- **Issues with employment:** Two-thirds say having MS has affected their job<sup>15</sup>, and only ~ 50% of people with MS will be employed 10 years after diagnosis<sup>16</sup>.
- **Reduced independence:** About one third of people need a wheelchair within 20 years of developing MS<sup>17</sup>.

## How is MS treated?

- **Disease-Modifying Therapies (DMTs):** These attempt to alter the natural course of MS by modifying the immune response. There are DMTs available that can reduce the frequency of relapses, delay the accumulation of physical disability and minimize brain volume loss<sup>9</sup>. Whilst a decade ago, the only DMTs available were injectable, there are now other options such as infusions and oral formulations (tablets or capsules)<sup>9</sup>.
- **Symptomatic treatments:** There are therapies available to treat individual MS symptoms, such as spasticity<sup>18</sup> or problems walking<sup>19</sup>. Corticosteroids can be used for the acute treatment of relapses, but are not recommended for an extended period of time<sup>20</sup>.

People with MS should speak to their doctor about right treatment and management options for them.

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