



## **Motor Neuron Disease (MND)**

Motor Neuron Disease is a term commonly used in the UK for a group of disorders, the most common of which is Amyotrophic lateral sclerosis (ALS). In the US, ALS is used as an umbrella term for all motor neuron diseases.

These diseases are caused by the death of motor neurons that control important voluntary muscle activity such as speaking, swallowing, breathing and walking.

As with other neurodegenerative diseases, MNDs are progressive conditions and begin with mild symptoms but, over the course of weeks to months, these will get steadily worse until the condition is completely debilitating.

The earliest symptoms are muscle weakness, including cramping and stiffness of the affected muscle, trouble swallowing and slurred speech. The symptoms which first arise will depend on the location of the motor neurons first affected.

**Question:** Which motor neurons do you think will be affected if a person first displays slurred speech versus someone who first shows leg cramping/weakness?

Over time, symptoms will worsen and people will find it increasingly difficult to move, swallow or speak. Eating becomes dangerous, as difficulty chewing and risk of choking increases. As the diaphragm and muscles in the rib cage weaken, breathing and lung function deteriorate.

**Task 1:** Explore the bullet point 'Are there different types of MND?' in the link below to learn the difference between ALS and other forms of MND.

<https://www.mndassociation.org/about-mnd/where-do-i-start/what-is-mnd/>

As with all neurodegenerative diseases, there is no cure for MND. There are current treatments, but these are aimed at making a person comfortable and giving them the best quality of life possible in the end stages of the disease. These include methods of compensating for loss of bodily functions, for example use of computers/speaking programmes to allow a person to continue communicating when they can no longer speak for themselves.

The life expectancy for someone suffering with MND is typically around three years from the onset of symptoms. However, many people will survive longer than this and some even for over 10 years.