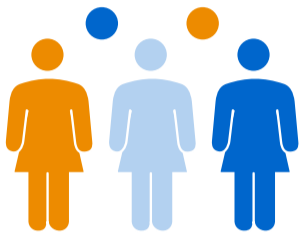
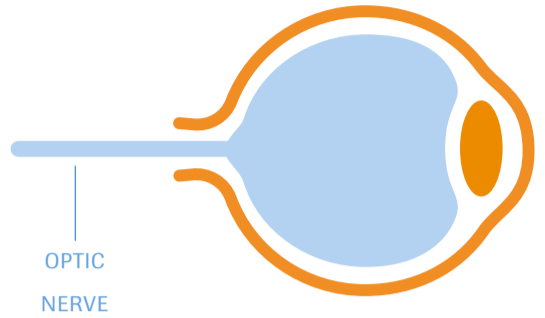


UNDERSTANDING NEUROMYELITIS OPTICA SPECTRUM DISORDER,

A Debilitating and Rare Autoimmune Disease

What?

Neuromyelitis Optica Spectrum Disorder, or NMOSD, is a rare, lifelong and debilitating autoimmune disease of the central nervous system (CNS), that primarily damages the optic nerve and spinal cord.



The disease is most common among women in their **30s and 40s** and affects fewer than five in every 100,000 people worldwide.

Who?

How?

In NMOSD, the immune system mistakes normal tissues of the CNS as being foreign and attacks the optic nerve and spinal cord.



Symptoms can be severe, including:

BLINDNESS



MUSCLE WEAKNESS



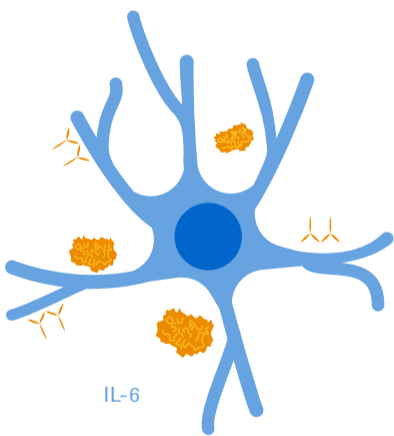
INABILITY TO WALK



FATIGUE



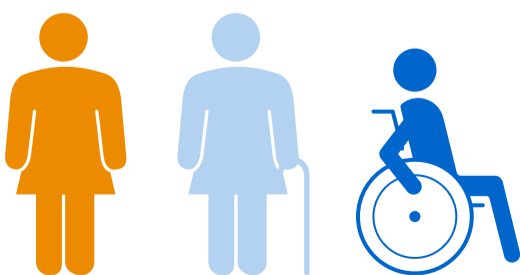
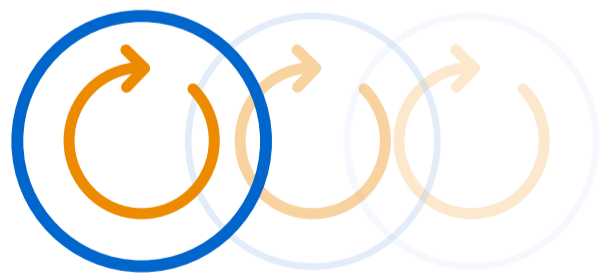
PAIN



The exact cause of NMOSD remains unknown.

Interleukin 6, or IL-6, is a signalling protein in our bodies made by many immune cells and considered a key driver in NMOSD, which triggers the inflammation cascade, leading to damage and disability.

Severe relapses can lead to accumulating, permanent neurological damage, visual impairment and disability, and in some cases death.



YEAR 1

YEAR 5

Because NMOSD is a progressive disease, symptoms continue to build with each relapse. Within five years:

50% of people require a wheelchair

62% are functionally blind, or don't have useful vision.

Roche