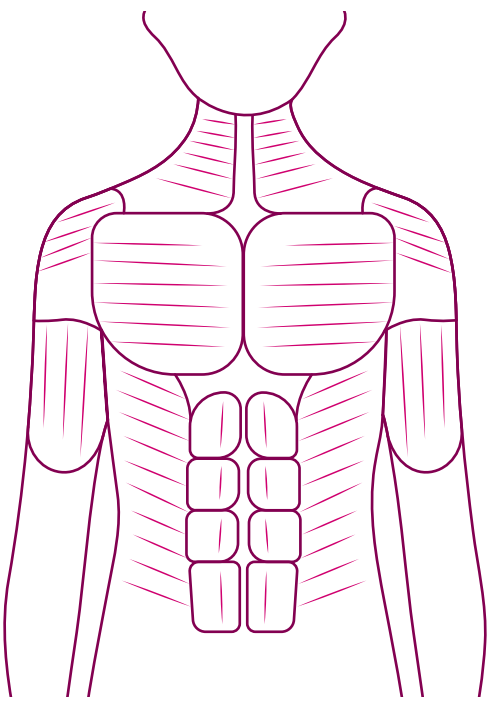
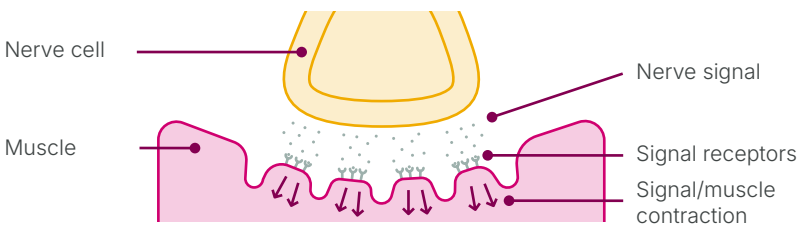
Generalised Myasthenia Gravis (gMG)

What is generalised myasthenia gravis?

Generalised myasthenia gravis (gMG) is a **rare autoimmune disorder** characterised by reduced muscle function and severe muscle weakness.[1]

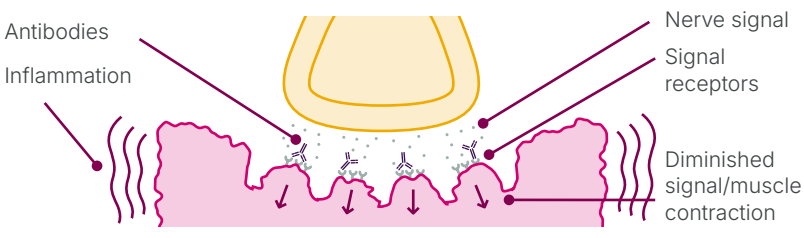


Neuromuscular junction (NMJ)



The **neuromuscular junction (NMJ)** is the connection point between **nerve cells** and the **muscles** they control.[2]

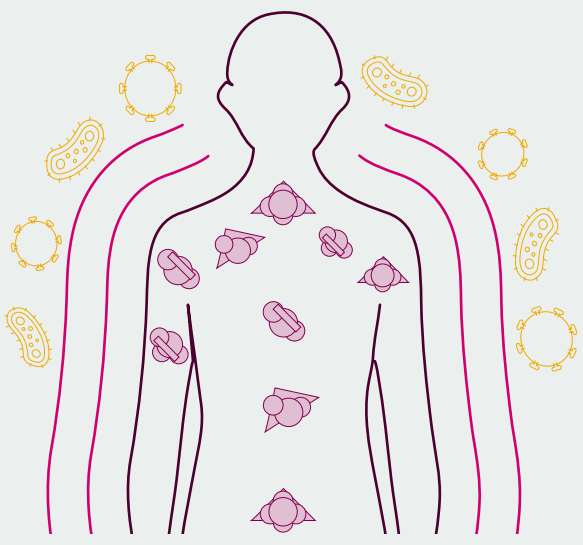
Neuromuscular junction (NMJ) in gMG



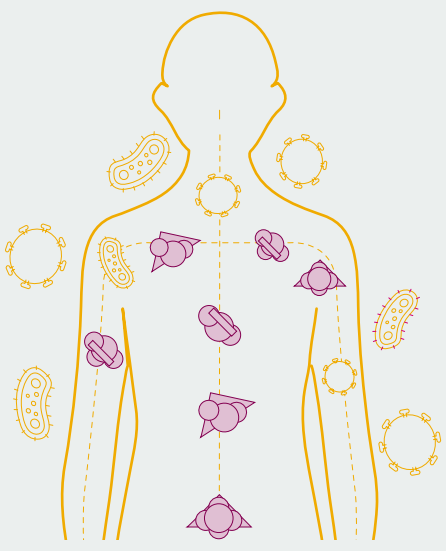
85% of people with gMG are AChR+, meaning they produce specific antibodies (anti-AChR) that bind to signal receptors at the NMJ. This binding activates the complement system, causing the immune system to attack the NMJ. This leads to inflammation and a **breakdown in communication** between the **brain** and the **muscles**.[2-4]

The complement system

The complement system is a part of the immune system and is **essential to the body's defence against infection**.[5]



When the system is thrown out of balance, or dysregulated, these proteins can **trigger a dangerous, uncontrolled cascade of reactions** that attack cells and tissues resulting in **harmful inflammation and the destruction of healthy cells**.[5]



Diagnosed prevalence of gMG

China **~132K**[6]

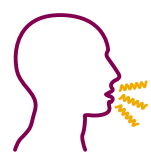
US **~98K**[6]

EU **~82K**[6]

Japan **~21K**[6]

Most commonly begins for **women before the age of 40** and for **men after the age of 60.**[7]

Initial symptoms of gMG may include[8,9]



Slurred speech



Double vision



Droopy eyelids



Lack of balance

which can often lead to more severe symptoms as the disease progresses



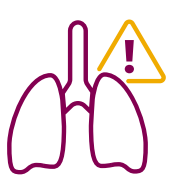
Impaired swallowing



Choking



Extreme fatigue



Respiratory failure

How is gMG diagnosed?[9-11]



gMG is typically diagnosed with a **physical examination** to evaluate muscle function.

Blood tests for certain antibodies, including anti-acetylcholine receptor (anti-AChR).

Nerve and muscle stimulation and **chest computed tomography** or **magnetic resonance imaging (MRI)** are also used.

Content created by Alexion, AstraZeneca Rare Disease.

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