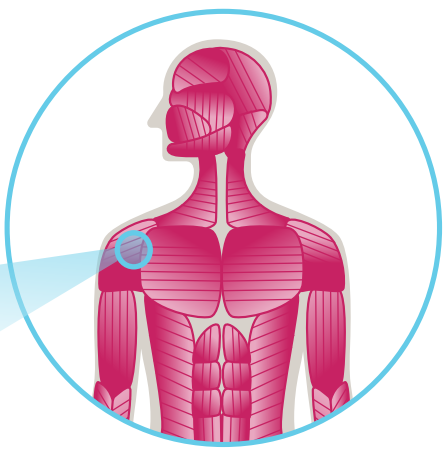
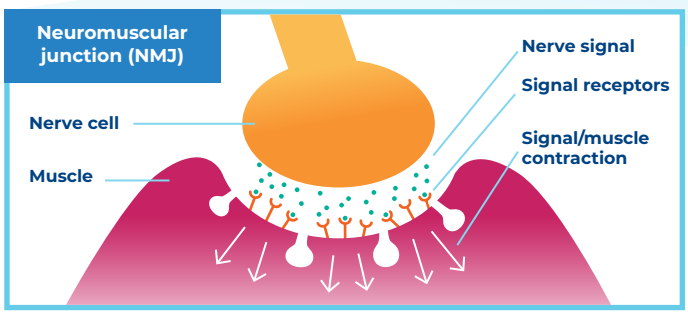
Generalised Myasthenia Gravis (gMG)

AstraZeneca Rare Disease

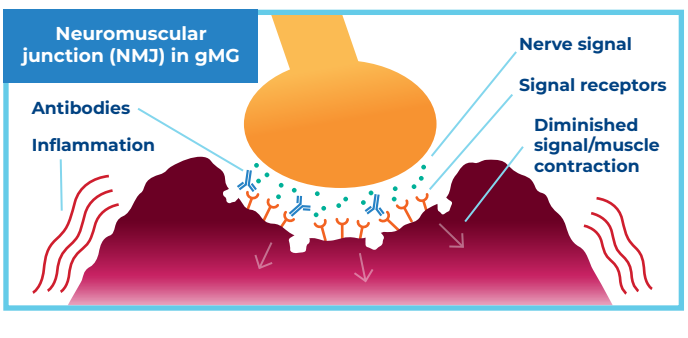
WHAT IS GENERALISED MYASTHENIA GRAVIS?

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



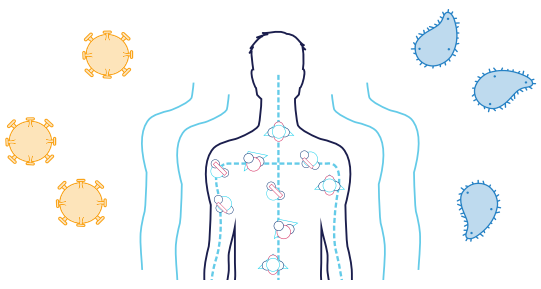


The **neuromuscular junction (NMJ)** is the connection point between **nerve cells** and the **muscles** they control.[2]

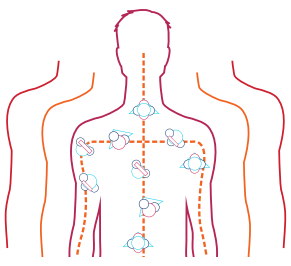


80% of people with gMG are AChR+, meaning they produce specific antibodies (anti-AChR) that bind to signal receptors at the NMJ. This binding activates the complement system, causing the immune system to attack the NMJ. This leads to inflammation and a **breakdown in communication** between the **brain** 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 in adults

~113K[6] ~93K[6] ~89K[6] ~20K[6]

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

Initial symptoms 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), are also used

as well as **nerve and muscle stimulation** and **chest computed tomography** or **magnetic resonance imaging (MRI)**.

Content created by Alexion, AstraZeneca Rare Disease

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