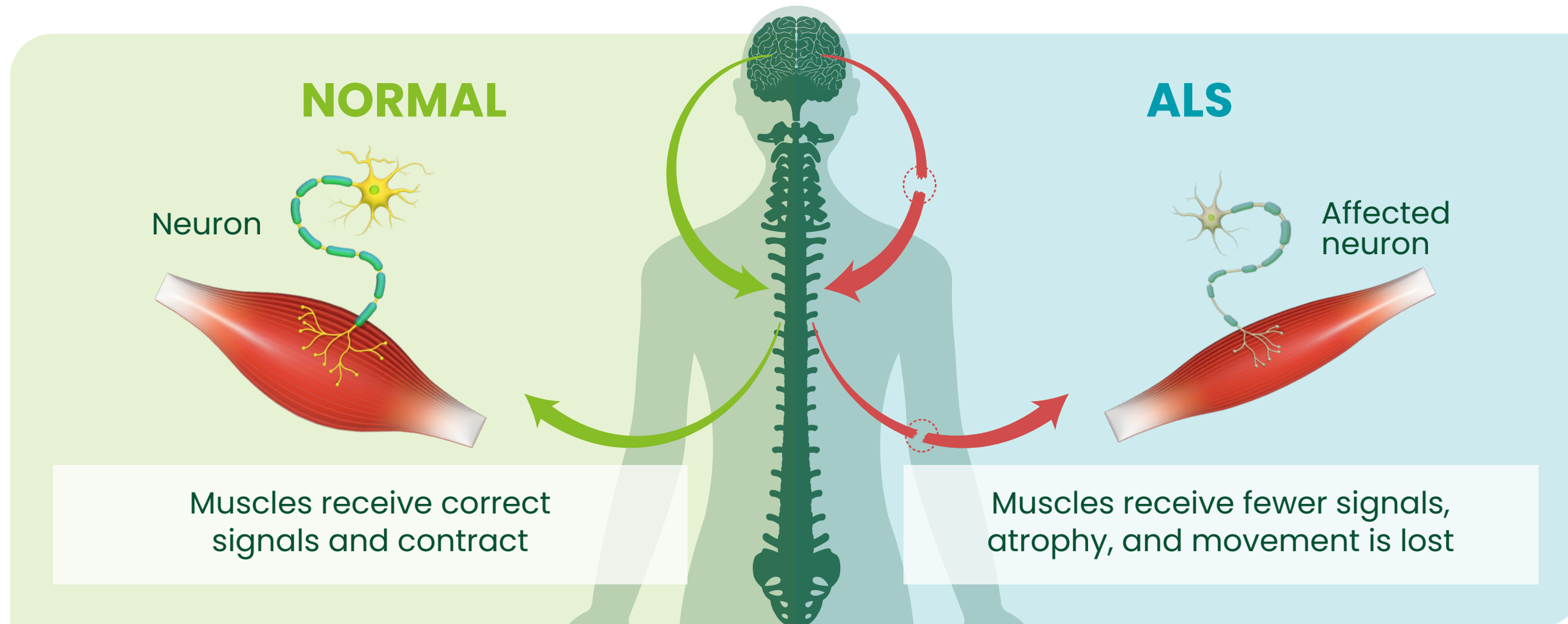


THE DISEASE

ALS is a disease in which motor neurons in the brain, brainstem, and spinal cord, which control movement, stop working.



Symptoms

➤ Progressive loss of muscle function

Gradual loss of the ability to:

- Speak
- Grasp objects
- Move
- Walk
- Swallow
- Breathe

➤ Cognitive/behaviour problems

- **ALS is a rare disease.**
- **ALS currently has no cure.**
- Current treatment focuses on **relieving symptoms and slow the progression of the disease**, to improve the quality of life of those affected.

HOW DOES IT DEVELOP?

The process by which ALS develops is still unknown.

Many factors may contribute to motor neuron cell deterioration, being reactive oxygen species (ROS) one of them.

During normal cell function, **toxic compounds are produced**, known as ROS or free radicals.



Mitochondria are cell organelles that **keep the levels of toxic compounds in the cell within a safe range.**



In ALS, the mitochondria in neurons do not work well, **levels of oxidative stress become too high** and **neuronal death increases.**

