The spinal cord is like a thick electric cable that is a continuation of the brain. It is the route along which messages are sent to and from the brain to:

- control movement,
- receive sensations and
- regulate function of the body’s organs

How does it do that?

Messages from the nerves in your muscles, skin, organs and bones travel up the spinal cord to the brain. The brain processes the information. The brain then sends a message back down the spinal cord to tell your body what to do.

For example, if you touch something very hot, your brain processes that sensation through pain receptors and then sends impulses to your muscles to reflex causing you to jerk your arm away.

The Spine

Around the spinal cord is the spine which is made up of bones called vertebrae, ligaments, and discs. The spine acts as a shock absorber, insulating the spinal cord and protecting it from damage. The cervical area (at the top), the thoracic area (upper back), the lumbar spine (lower back) and the sacral area or tail bone (at the bottom).

What happens in Spinal Cord Injury?

When the spine is disrupted for instance in an accident, swelling can occur around the spinal cord or the cord can actually be severed either partially or completely. This is a spinal cord injury (SCI).

A disruption to the spine could be one or more broken vertebrae, a prolapsed disc (commonly known as a slipped disc), or ligament/muscle damage.

SCI causes temporary or permanent disruption to motor, sensory, or autonomic function.