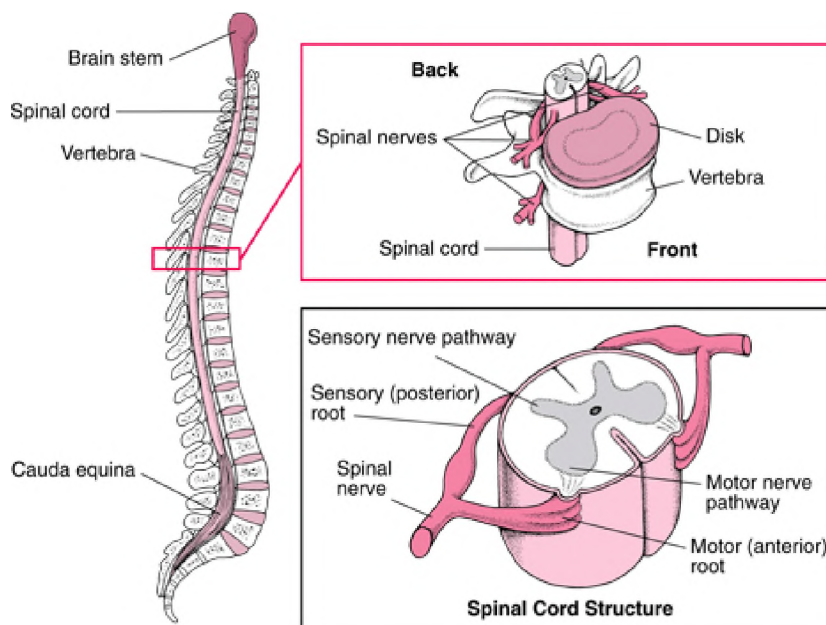


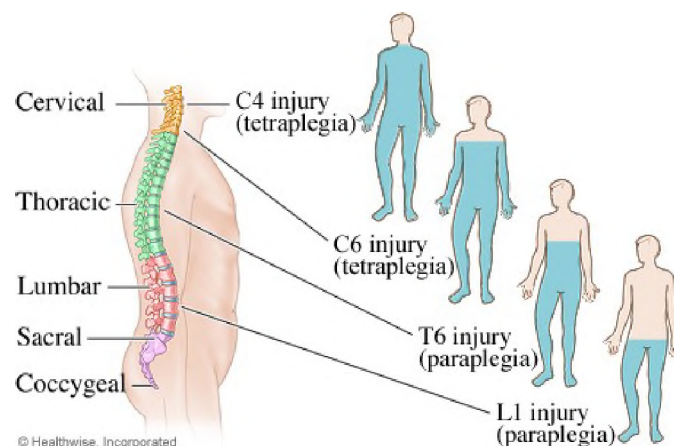
“Nothing is impossible...”

Mateusz Kupczyk,
fizjoterapia II rok, grupa IV
25.12.2014

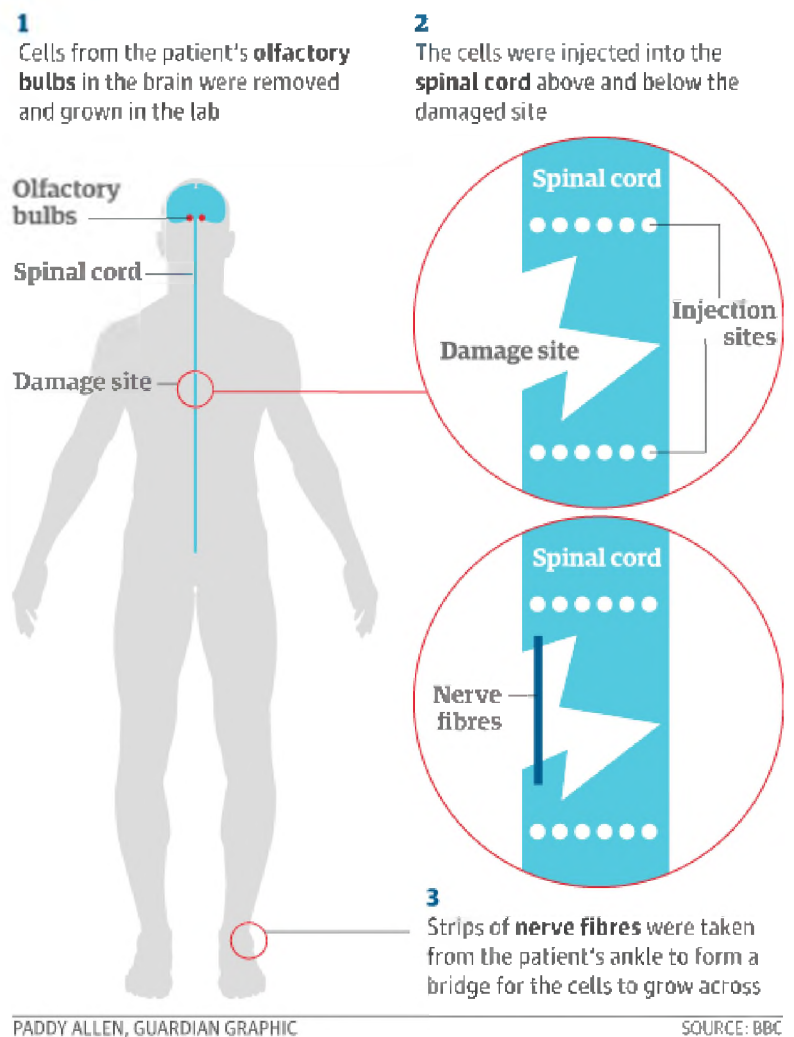
The nervous system is the most important in the human body. It consists of the **central and peripheral system**. Two main structures of the central nervous system are the brain and the **spinal cord**. They cooperate together by receiving signals from outside of the body, controlling and coordinating functions. The spinal cord extends from the **foramen magnum** to L1/L2 vertebra of lumbar part and ends with the **final thread**. Vertebrae and **cerebrospinal fluid** are the main structures that protect the spinal cord from many injuries.



Spinal cord injury produces such symptoms as **numbness, weakness, loss of sensation** and **paralysis**. These **disorders** allows identification of the level at which the spine is **damaged**. There are two types of spinal cord injury: **complete** and **incomplete**. Complete injury often causes permanent changes in strength, sensation and other body functions below the site of the injury. Incomplete spinal cord injury is when the **motor function** is preserved below the neurological level.



In 2010 the 40 year old fireman from Poland- Darek Fidyka was the victim of a knife attack that left him **paraplegic**. He was completely paralysed from the waist down. However, scientists in Poland used cells from Mr Fidyka's **brain cavity** to **re-grow nerve cells** which were then inserted into his spine, fixing the broken link. After 19 months of treatment at a Polish hospital, his doctors said he has recovered some **voluntary movement** and some **sensation** in his legs. These are the three steps that doctors made to fix the broken link ☐



Darek Fidyka who is believed to be the first person in the world to **recover** from complete injury of the spinal nerves, can now walk with a **walker**. He considers that in the future he will be able to lead an independent life.

Vocabulary:

central nervous system- ośrodkowy układ nerwowy
peripheral nervous system- obwodowy układ nerwowy
spinal cord- rdzeń kręgowy
foramen magnum- otwór wielki
final thread- nić końcowa (ogon koński)
cerebrospinal fluid –płyn mózgowo-rdzeniowy
numbness – drętwienie
weakness- osłabienie
loss of sensation – utrata czucia
paralysis- paraliż
disorders –zaburzenia
complete injury – uszkodzenie całkowite
incomplete injury – uszkodzenie niecałkowite
motor function – funkcja ruchowa
damaged – uszkodzony
paraplegic -paraplegia
brain cavity – jama mózgu
to re-grow nerve cells – odbudować komórki nerwowe
voluntary movement – ruchy dobrowolne
sensation – uczucie, wrażenie
olfactory bulbs – opuszki węchowe
walker – balkonik

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