

COORDINATION

NERVOUS DISORDERS

(Paralysis and Epilepsy)

Learning outcomes

Students will be able to:

1. explain the two common kinds of nervous disorders (vascular i.e., paralysis and functional i.e., epilepsy);
2. enlist some of the symptoms and treatments of paralysis and epilepsy;
3. define skeleton and differentiate between cartilage and bone.

PARALYSIS

Paralysis is loss of [muscle](#) function for one or more muscles. Paralysis can be accompanied by a loss of feeling (sensory loss) in the affected area if there is sensory damage as well as motor.

Causes of paralysis

Paralysis is most often caused by damage in the [nervous system](#), especially the [spinal cord](#). Other major causes are [stroke](#), [trauma](#) with [nerve injury](#), [poliomyelitis](#) and [amyotrophic lateral sclerosis](#) (ALS), [botulism](#), [spina bifida](#), [multiple sclerosis](#), and [Guillain-Barré syndrome](#).

Epilepsy

Epilepsy is a brain disorder in which a person has repeated seizures (convulsions) over time. Seizures are episodes disturbed brain activity that cause changes in attention or behaviour.

Causes of epilepsy

Epilepsy occurs when permanent changes in brain tissue cause the brain to be too excitable or jumpy. The brain sends out abnormal signals. This results in repeated, unpredictable seizures.

Epilepsy seizures usually begin between ages 5 and 20, but they can happen at any age. There may be a family history of seizures or epilepsy

SUPPORT AND MOVEMENT

THE HUMAN SKELETON

Whats is a skeleton?

The **skeleton** (From Greek *skeletos* = "dried-body", "mummy") is the body part that forms the supporting structure of an [organism](#). There are two different skeletal types: the [exoskeleton](#), which is the stable outer shell of organism, and the [endoskeleton](#), which forms the support structure inside the body.

Bone

It is a rigid connective tissue. **Bones** are [organs](#) that constitute part of the [endoskeleton](#) of [vertebrates](#). They support, and protect various organs of the body, produce [red](#) and [white blood cells](#) and store [minerals](#). Bone tissue is a type of dense [connective tissue](#). Bones come in a variety of shapes and a complex internal and external [structure](#), are lightweight yet strong and hard, and serve multiple [functions](#).

Cartilage

Cartilage is a flexible [connective tissue](#) found in many areas in the bodies of humans and other animals, including the joints between [bones](#), the [rib cage](#), the [ear](#), the [nose](#), the elbow, the knee, the ankle, the [bronchial tubes](#) and the [intervertebral discs](#). It is not as hard and rigid as bone but is stiffer and less flexible than [muscle](#).

Multiple Choice Questions

1. A brain disorder that consists of repeated seizures is called

- A. paralysis.
- B. epilepsy.
- C. stroke.
- D. high blood pressure.

2. Which of the following organisms has exoskeleton?

A. Rat.

B. Squirrel.

C. Snail.

D. Pidgeon.

