Concussion in football

Name:

Skills: interpreting, understanding

Concussion occurs when the body's nervous function shuts down following a mild injury to the brain. Unconsciousness caused by concussion usually lasts less than five minutes. **Amnesia**, the loss of memory, always comes with concussion.

Recent research has shown that concussed footballers are more likely to get knocked down again within the next 7 to 10 days. This is because their neurons have not fully recovered and sometimes there is brain swelling. This affects the brain's capacity to process information at its normal rate. The footballer's reaction times are a bit slower, possibly due to the neurons producing less energy to transmit messages.

In soccer, about 4 per cent of all injuries are head injuries that cause concussion. The most common kind is player-to-player head clashes; the next most common is a player's head being struck by a ball that has been kicked at close range. A Norwegian study has found that a high percentage of first division players have abnormal EEG (electroencephalogram) patterns. These EEG patterns are a way of monitoring the brain's functioning. If the patterns are abnormal then the brain is not functioning properly. Heading the ball may cause some of the neurological problems reported by soccer players. The repeated low-intensity impacts of heading a soccer ball may be similar to that of concussion, where the player becomes more susceptible to later impacts.

Questions

1 Define 'concussion'.

2 Identify the term used to describe a loss of memory.

3 Propose the length of a rest period for a player who has suffered a severe concussion.

4 Concussion causes neuron damage and sometimes brain swelling. Describe the effect this may have.

5 Propose reasons why a concussed footballer's reaction times would be a bit slower than normal.

6 Identify the most common cause of concussion in soccer.

7 Outline two other causes of concussion in soccer.

8 Explain what each initial in EEG stands for.

9 Goalies are less likely to head the ball, as they use their hands more often. Predict whether there would be a difference in the percentage of neurological problems between goalies and forwards.