Wondershare EdrawMind

# joints

## FIBROUS JOINTS

1- the bones are connected together by fibrous tissue 2- there is no monment

- sutures(synarthrosis)
  - (of the skull) it ossifies with age
  - ex: coronal & saggital suture of the skull
- gomphosis
  - don't ossify. it is a peg(teeth) and socket(cavity of the jaw) variety
- syndesmosis
  - two adjecant bones are linked by stronge membrane or ligaments
  - ex:middle inferior tibiofibular joints
  - middle radioulnar joint
  - it doen't ossify

## The sites of articulation between 2 bones or more

## CARTILAGINOUS JOINTS

the bones are connected together by cartilage

- primary cartilaginous joints
  - 1. the bones are connected together by hyaline cartilage
  - 2. it is ossified by age
  - 3. they are temporary joints
  - 4.they permit no movement
  - 5. ex: epiphyseal plate of long bone
- secondary cartilaginous joints
  - 1. the bones are connected together by fibrocartilage
  - 2. it is never ossified
  - 3. the are permanent joints
  - 4.they permit slight movement
  - ex: a) symphysis pubis b) intervertebral discs

## SYNOVIAL JOINTS diarthrosis

- classification(types) of the synovial joints:
- according to articular parts
  - 1. simple joints: it consist of 2 articulating bones ex: shoulder or hip joints
  - 2. compound joints: it consists of more than 2 bones ex: elbow or ankle joints
  - 3. complex joints:which contain intra-capsular structures ex: knee joint
- according to degree of movements
  - plane joints:it allows only gliding movements ex: intercarpal& intertarsal joints
  - angular movements: they form angles between the articular bones (flexion& extension) ex: elbow and knee joints
  - circumduction:they permit successive angular movements ex: shoulder& hip joints
- according to the axes of movement
  - uniaxial joints
    - the movement occur around 1 axes
    - hinge joints: — ex: elbow and interphalangeal joints
    - pivot joints: — ex: superior and inferior radio-ulnar joints: atlantoaxial joint
  - biaxial joints — movement occurs around 2 axis
    - ellipsoid joint — ex: Wrist joint and Metacarpophalangeal joint
    - saddle joint — ex: Carpometacarpal joint of the thumb.
    - modified hinge joints — knee joint
  - polyaxial joints
    - more than 2 axis
    - they are also called ball ( rounded head) & socket ( concave surface) joints
    - they allow all type of movements ex: shoulder & hip joints

N.B: Sternoclavicular Joint is a modified saddle synovial joint.