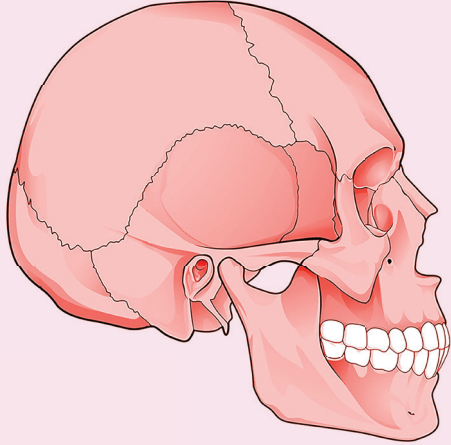


## Joints and Disorders of Muscular and Skeletal System

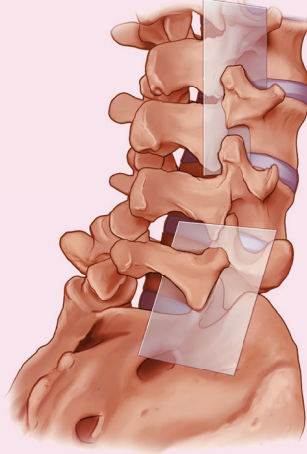
### Fixed Joint or Synarthrosis

- Permits no movement
- Binding tissue: Fibrous
- Ex. Sutures between skull bones



### Slightly Movable Joint or Amphiarthrosis

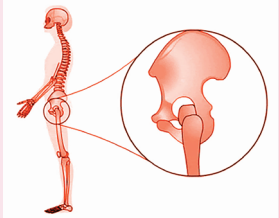
- Permits slight mobility
- Binding Tissue: Cartilaginous
- Ex. Joints between intervertebral discs



### Freely Movable Joint or Synovial Joint

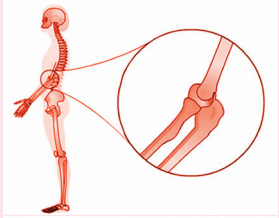
- Permits maximum movement
- Binding Tissue - Synovial

#### Ball and Socket Joint



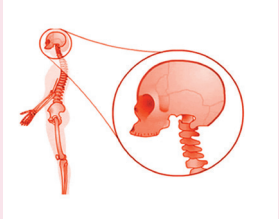
Permits many type of movements

#### Hinge Joint



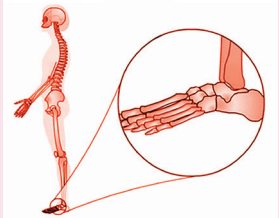
Two kinds of movements: flexion and extension

#### Pivot Joint



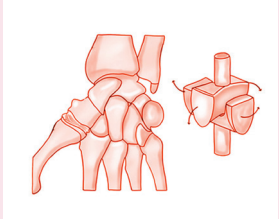
Rotation along one axis only

#### Gliding joint



Movements only in two axis

#### Saddle joint



Limited rotational movement

## Disorders of Skeletal System

### Osteoporosis

- Reduced mineral density in bones
- Highly susceptible to fractures
- Calcium supplements help to protect the bones and restore the bone density

### Osteomalacia and Rickets

- Due to deficiency of vitamin D

### Dislocations and Fractures

- Due to injury or impact of any kind

### Spondylitis

- Group of disorders that affect spine

### Arthritis

- Disease of the joints
- Rheumatoid arthritis: body's cells destroy the cells in the joints
- Osteoarthritis: degenerative disease
- Infectious arthritis: bacteria attack joint
- Gouty arthritis: deposition of uric acid

## Disorders of Muscular System

### Muscular dystrophy

- With time, muscles become weak, ceasing movement

### Sprain and Strain

- Sprain occurs due to injury to the ligament and the joint is twisted but there is no dislocation of the bones
- Strain is less severe than a sprain

### Myasthenia gravis

- Autoimmune disease, where the antibodies affect the nerves and they lose their ability to generate muscular contractions

### Tetany

- Uncontrolled twitching of muscles due to nutritional deficiencies, infections or other nervous system disorders