

SEPTIC ARTHRITIS

by

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DEFINITION

Definition: Septic arthritis is an inflammation of the joint due to infectious agent.

- Also referred as infectious arthritis
- Septic arthritis is extremely painful and can develop quickly.
- It's a very serious condition which can affect people of any age.
- It needs to be treated in hospital as soon as possible as an emergency

- Any joint in the body can be affected by septic arthritis. It can affect more than one joint, It most commonly affects the knees and hips.
- After diagnosed with septic arthritis, the infection needs treating as soon as possible to prevent it causing long-term damage and other complications to your general health

ANATOMY

Colour code

Ball and socket

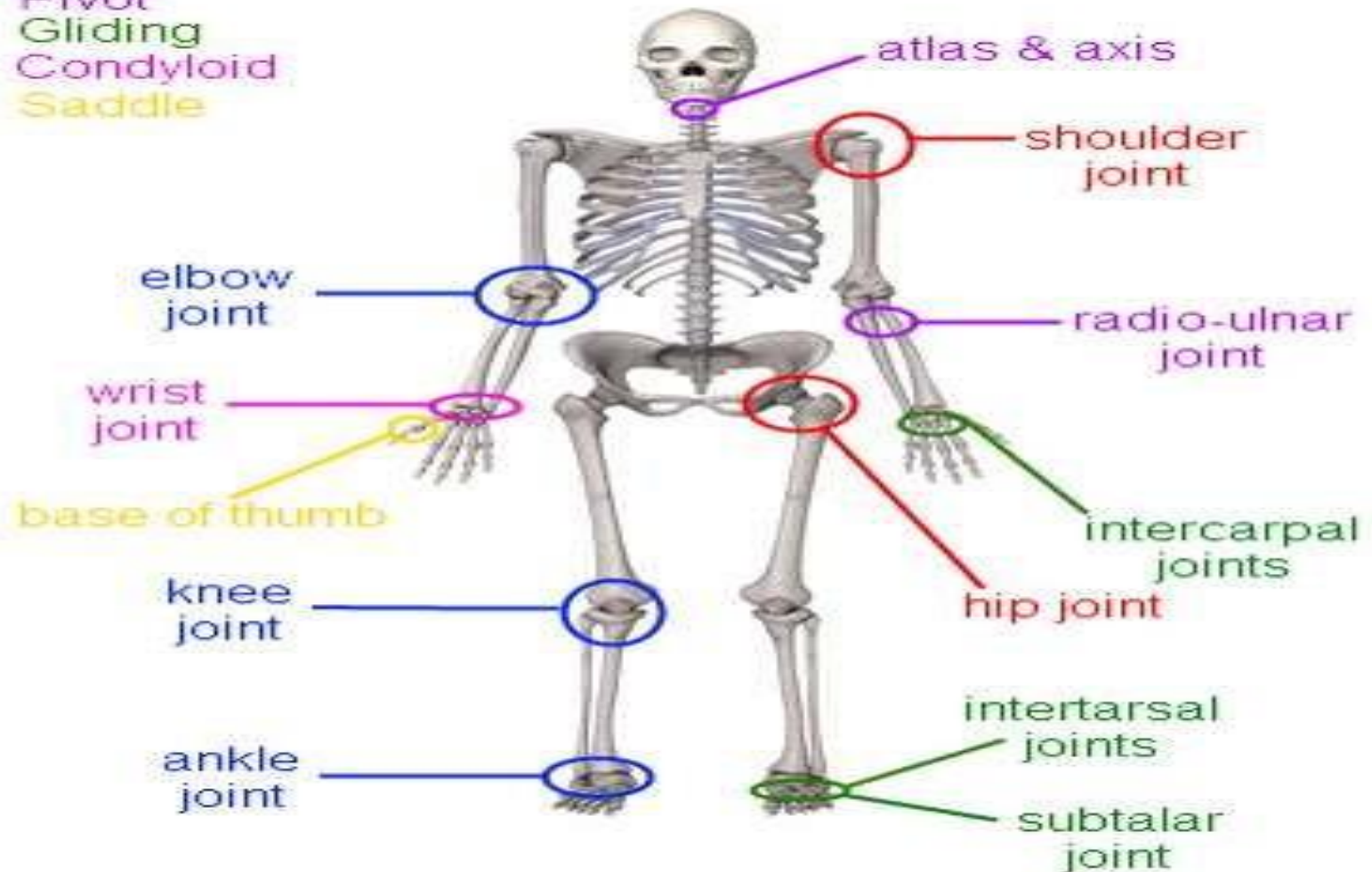
Hinge

Pivot

Gliding

Condyloid

Saddle



Risk factors

1. Diabetes mellitus
2. Osteoarthritis
3. Rheumatoid arthritis.
4. Immunosuppressive medication
5. Intravenous drug abuse
6. Recent joint surgery
7. Hip or knee prosthesis and skin infection
8. HIV infection
9. Other causes of sepsis
10. Age over 80 years

Causes

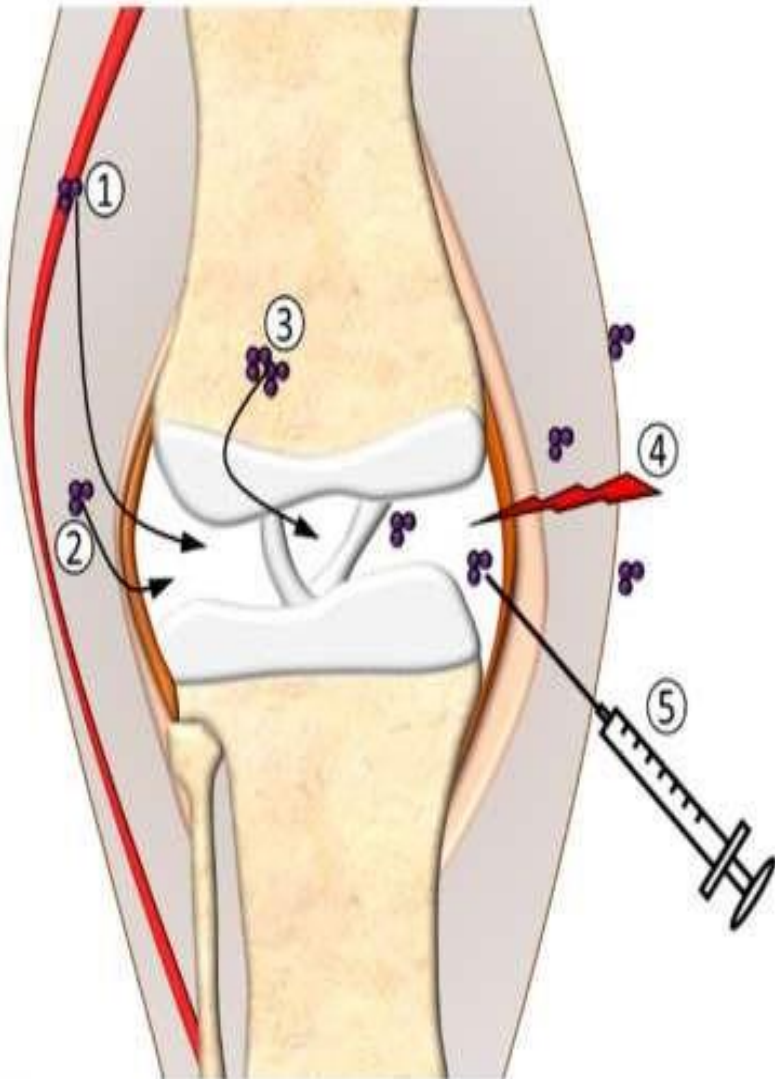
There are five types of bacteria :

1. Streptococcus agalactiae
2. Streptococcus aureus
3. Neisseria gonorrhoea
4. Streptococcus epidermis
5. Pseudomonas aeruginosa

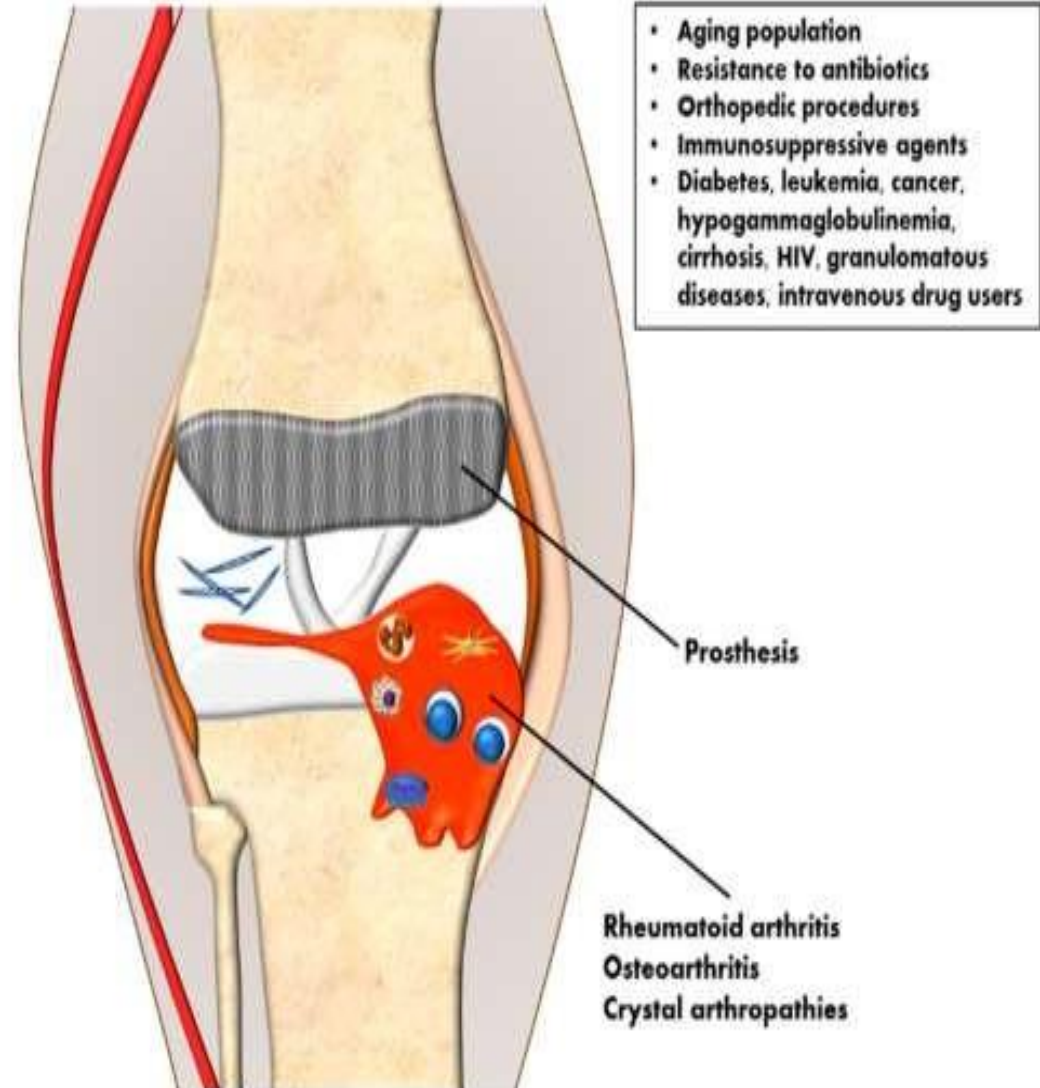
**Haematogenous spread from infection of lung
and skin**

AETIOLOGY

A Routes of infection



B Increased risk for septic arthritis development



signs and symptoms



signs and symptoms

1. Fever – high fever
2. Joint abnormalities(affected mainly hip joint and knee joint) :
 - Hotness
 - Redness
 - Swallen
 - pain (increase in rest and movement)

Diagnosis :

Sign and symptoms

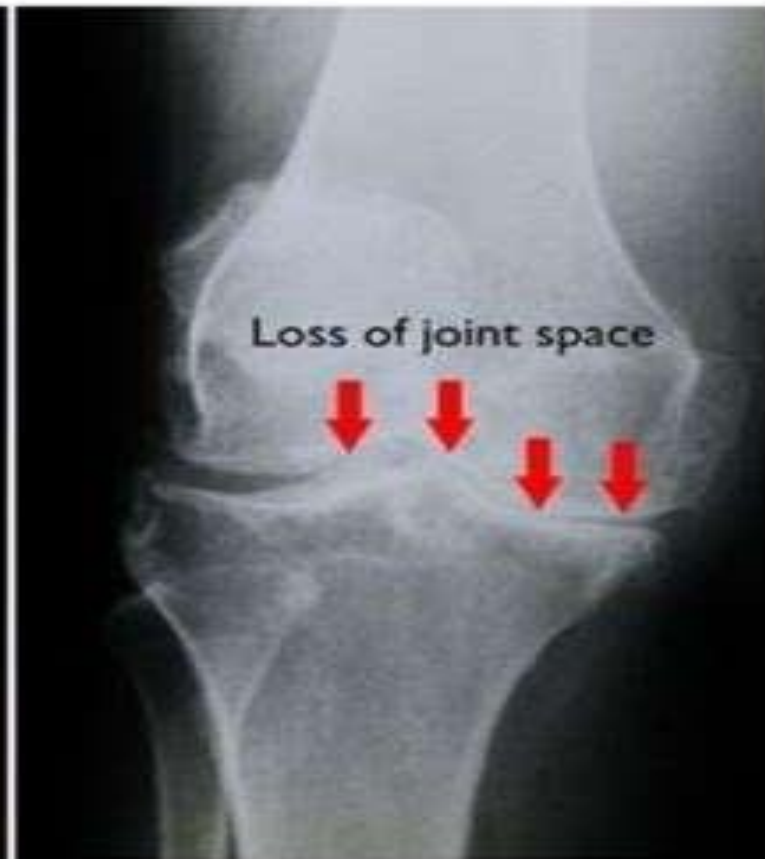
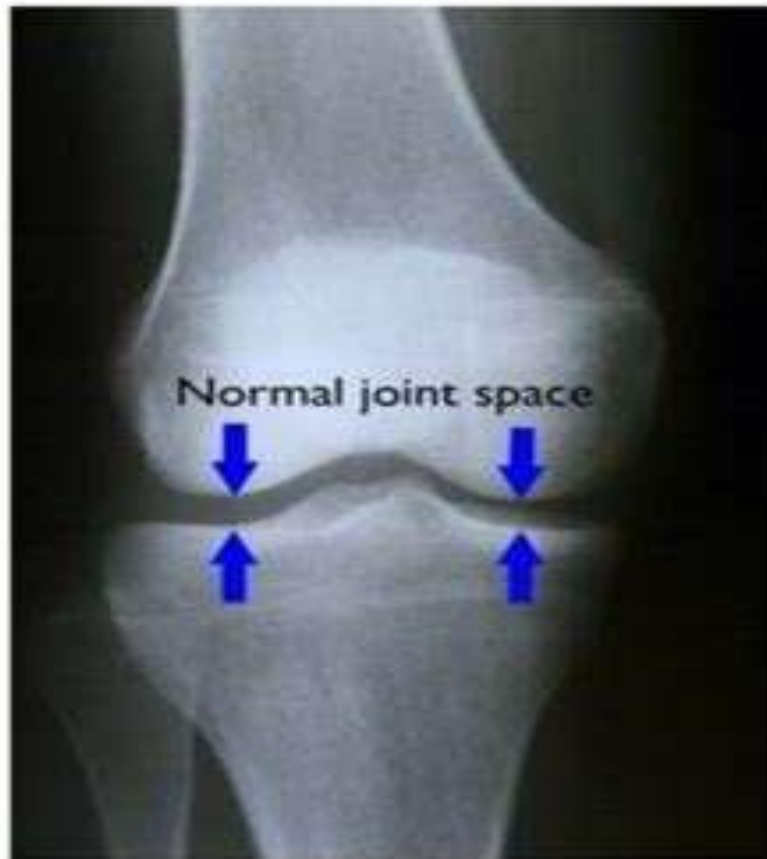
➤ blood investigations

- Raised WBC
- Raised ESR and CRP
- Blood culture (positive)

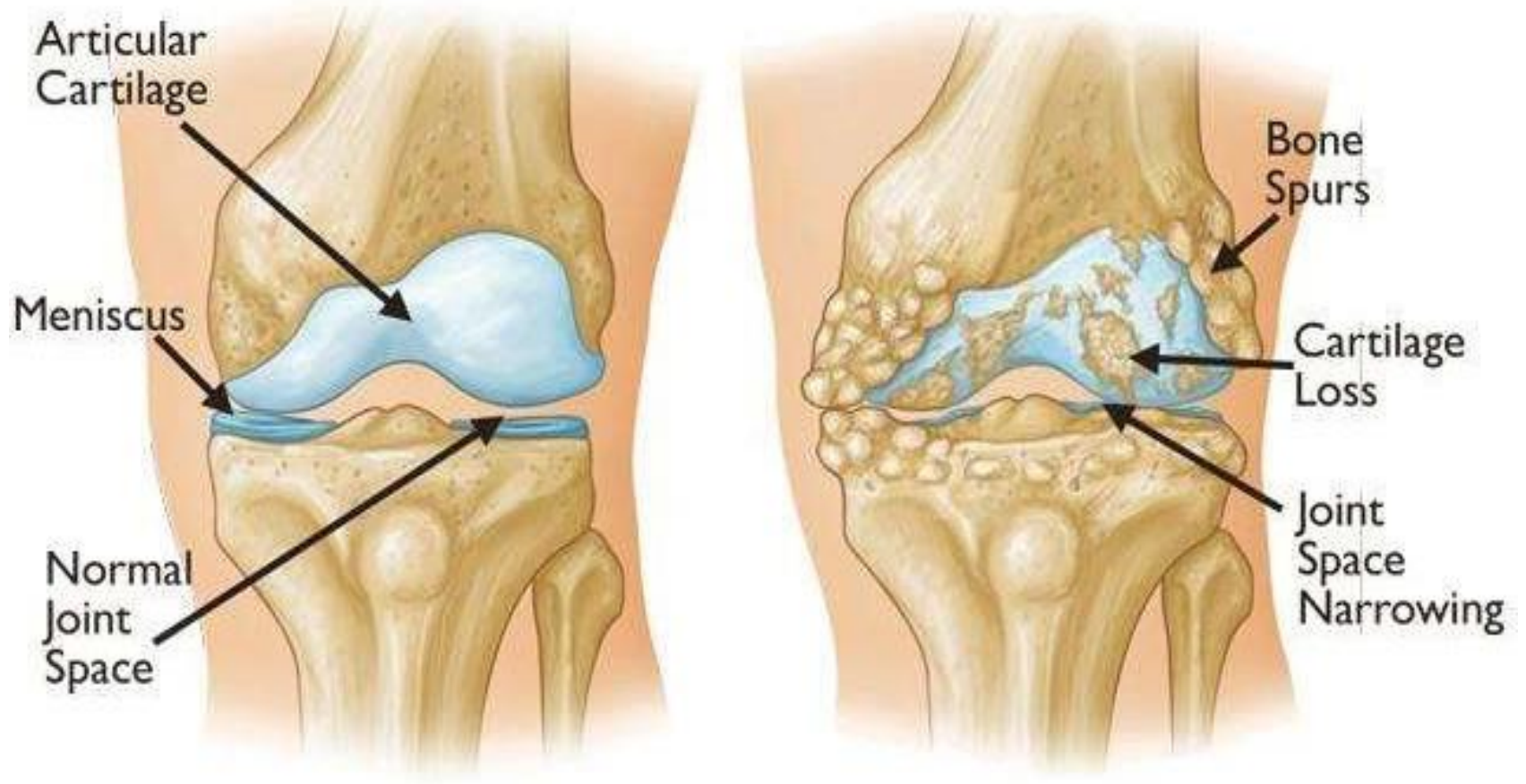
➤ imaging: x-ray, ultra sound, MRI

➤ synovial fluid analysis

X-RAY FINDING



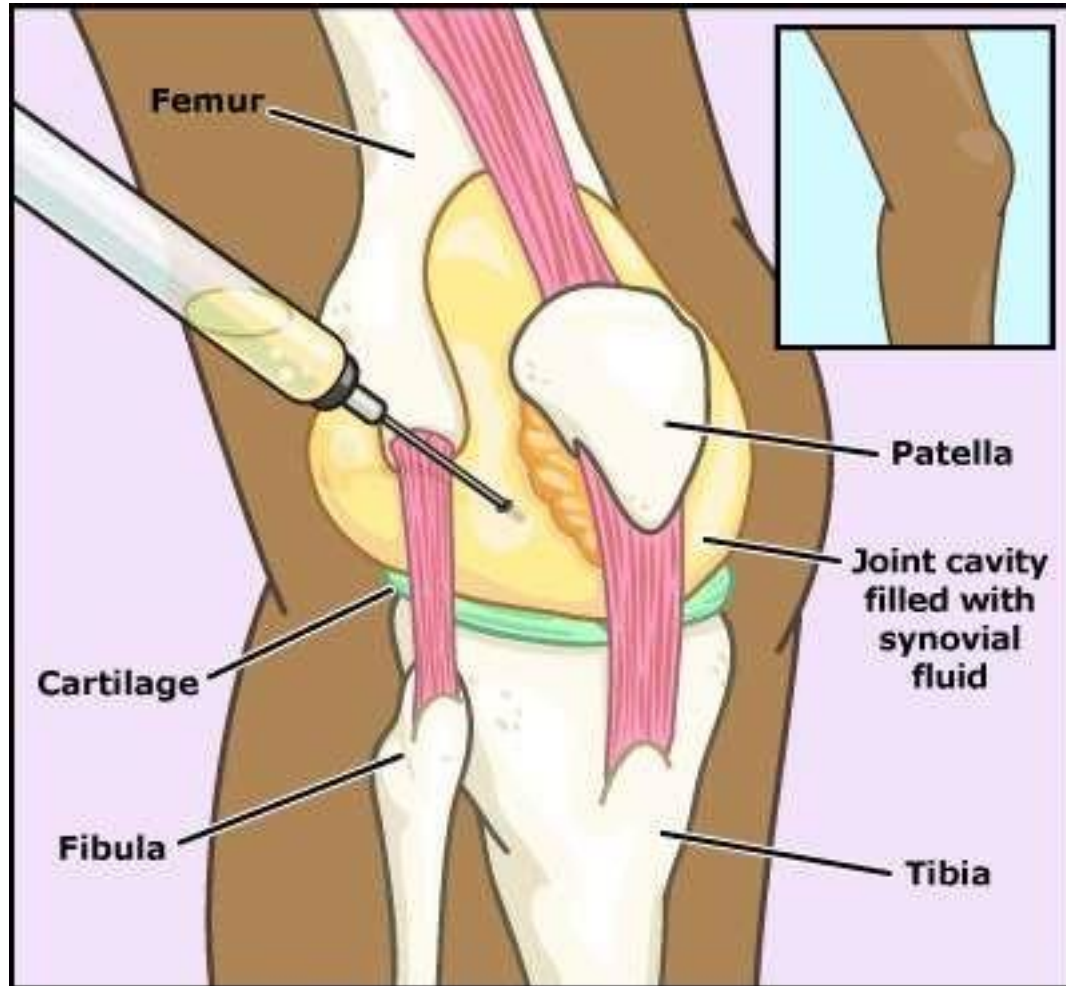
FINDINGS



INVESTIGATION



INVESTIGATION



INVESTIGATION

Synovial Fluid Analysis

	WBC/mm ³	Color	Viscosity
Normal	< 150	Colorless/Straw	High
Noninflammatory	< 3,000	Straw/Yellow	High
Inflammatory	> 3,000	Yellow	Low
Septic (purulent)	> 50,000	Pus/Mixed	Mixed
Hemorrhagic	Similar to blood	Red	Low

Treatment

- Analgesics
- Flucoxacillin- 2 gm I.V 6 hourly for 2 weeks
- Vancomycin for strep. Aureus 1 gm IV twice a day for 2 weeks
- Gentamycin for neisseria gonorrhoea 5mg/kg body weight IV once a day for 2 weeks
- Joint aspiration
- Continue antibiotics for one month 2 weeks IV another 2 weeks orally.
- Surgical drainage
- Splinting
- Arthroscopy

COMPLICATIONS

1. Bone destruction and dislocation of the joint (especially hip)
2. Cartilage destruction
3. May lead to either fibrosis or bony ankylosis
4. In adult partial destruction of the joint will result in secondary osteoarthritis
5. Growth disturbance
6. deformity or shortening of the bone

Nursing care

- Receive antibiotic (IV) at first. After this, may take antibiotics by mouth.as directed.
- Do not stop taking them just because you feel better. need to take the full course of antibiotics.
- Rest the joint as much as possible
- propped up the injured joint on pillows as much as possible.

Nursing care

- Try to keep it at or above the level of your heart. It will help reduce pain and swelling.
- Follow doctor's instructions on exercises for the affected joint.
- Avoid to use the affected joint