

Crystal arthritis (**gout** and pseudogout)
swelling, erythema, and extreme pain and tenderness (**podagra**)

Pain

S: red, hot, tender first metatarsophalangeal joint

O: acute, severe pain that develops quickly, often **overnight**

Sever

Swelling

commonly starts overnight or early in the morning due to the rise in serum urate following the evening meal.

erythema

Extra-articular signs

Tophi : firm, irregular subcutaneous crystal collections (monosodium urate monohydrate). Common sites are the **olecranon bursa**, **helix of the ear** and **extensor aspects of the fingers**, **hands**, **knees** and **toes**.

If superficial, they may appear white, and may ulcerate, discharge crystals and become secondarily infected.

signs of renal failure or alcoholic liver disease

heritable

High alcohol intake

inflammatory arthritis

(rheumatoid arthritis or systemic lupus erythematosus (SLE))

Pain

S: swelling of several joints

O: Gradual develop over 24 hours, or more insidiously

A: swelling and redness

T: several weeks of pain, loss of function

E: worsens with rest.

Predominant involvement of the small joints of the hands and feet

Stiffness

early-morning stiffness that takes at least 30 minutes to wear off with activity.

Mild erythema

Chest pain Non-Central Pleural

rheumatoid arthritis

Extra-articular signs

Scleritis and episcleritis

dry eyes

palmar erythema

Rheumatoid nodules

leg ulcers

low-grade fever

weight loss

interstitial lung disease

pleural ± pericardial effusion

small-vessel vasculitis

lymphadenopathy

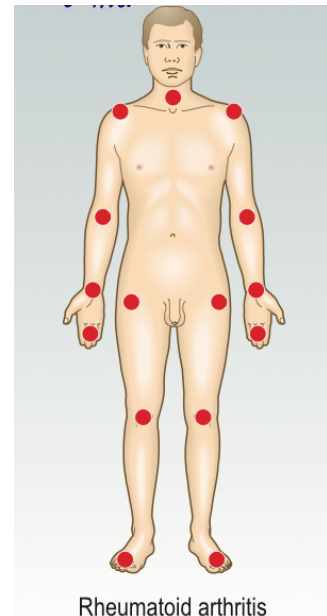
splenomegaly

Raynaud's phenomenon

Small, dark-red spots due to capillary infarcts

*more common if a first-degree relative is affected

*Smoking



- * symmetrical,
- * small and large joints,
- * upper and lower limbs

Systemic lupus erythematosus

Extra-articular signs

- Photosensitive rash especially on face across the cheeks and bridge of nose
- mucocutaneous ulcers
- alopecia
- low-grade fever
- weight loss
- pleural \pm pericardial effusion
- diaphragmatic paralysis
- pulmonary fibrosis (rare)
- Raynaud's phenomenon**
- lymphopenia
- Small, dark-red spots due to capillary infarcts

Large or small joint
(Knee)

13.6 Clinical vignette: joint pain and rash

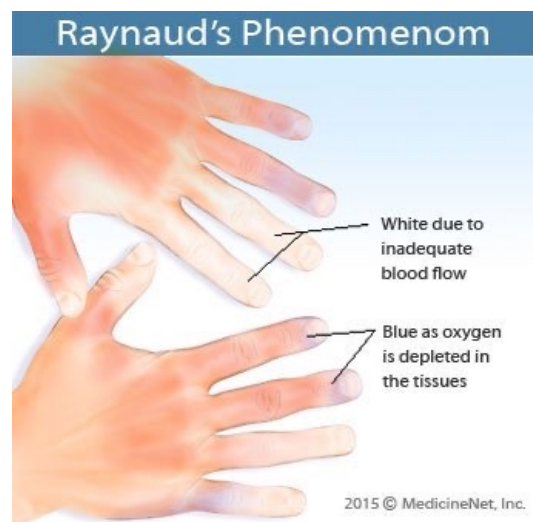
A 32-year-old lady is seen in the outpatient clinic with **fatigue** and **intermittent pain** and **swelling in her hands**, which she has had for the last year. She noticed a **rash across her cheeks** and on **her arms** while she was on holiday in Spain recently and this seems to have sparked off **painful mouth ulcers** and **worsening joint pain**. She has no other relevant history. Examination shows a **'butterfly' rash across the cheeks and nose**, **several mouth ulcers** and **two swollen metacarpophalangeal joints**. Blood tests reveal **anaemia**, **lymphopenia**, **positive antinuclear antibody** and **raised anti-double-stranded DNA antibodies**.

A diagnosis of **systemic lupus erythematosus** is made.

Systemic sclerosis

Extra-articular signs

- Skin tightening (**scleroderma**)
- telangiectasia \rightarrow purplish, blanch with pressure and are most common on the hands and face
- hands \rightarrow flexion contractures, calcific deposits in fingers and tissue ischaemia leading to ulceration
- fingers \rightarrow **Raynaud's phenomenon**
- pulp atrophy or ulceration
- dilated nail-fold capillaries
- pulmonary fibrosis
- Dysphasia**



Postinfective large joints, bilat.

Rheumatic fever

is an inflammatory disease that can develop when strep throat or scarlet fever isn't properly treated. Strep throat and scarlet fever are caused by an infection with streptococcus

Pain

T: Flitting' pain starting in one joint and moving to others over a period of days

Large joints

Bilateral

Reactive arthritis

is joint pain and swelling triggered by an infection in another part of your body

Extra-articular signs :

eye + urethra + joint

⇒ Can't see + pee + move

Urethritis

mouth and/or genital ulcers

conjunctivitis, iritis

circinate balanitis (painless superficial ulcers on the prepuce and glans)

enthesitis (inflammation of tendon or ligament attachments),

e.g. Achilles enthesitis/plantar fasciitis

rash (keratoderma blenorrhagica)

*sexually transmitted disease

Degenerative osteoarthritis

Medium or large joint swelling

Pain

Progressive joint pain in patients over 40 years of age

E: worsens with exercise

R: rest

Stiffness

Bony nodules affect :

lateral aspects of the DIP joints

Heberden's nodes

or proximal interphalangeal (PIP) joints

Bouchard's nodes

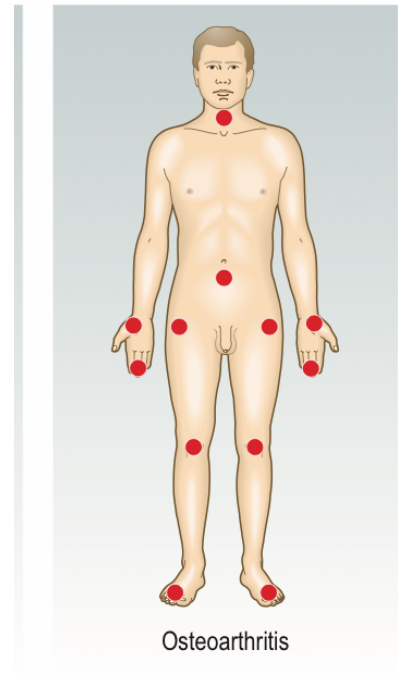
They are smaller and harder than rheumatoid nodules.

symmetrical

small and large joints

base of thumb, distal interphalangeal joints

Lower limb



Septic arthritis → infection

Develops over a few hours

Pain Sever

Swelling

tenderness

redness لَرْد

extreme reluctance to move the joint actively or passively.

Concurrent **glucocorticoid** or **NSAID** drug therapy modifies these features.

Extra-articular signs

Fever

malaise

source of sepsis, e.g. skin, throat, gut

Psoriatic arthritis

seronegative arthritis

Medium or large joint swelling

Extra-articular signs

Scleritis and episcleritis

Psoriasis

nail pitting, onycholysis

dactylitis – swelling of a whole digit

enthesitis

DIP joint swelling and erythema

asymmetrical

large joints

Axial spondyloarthritis

inflammatory disease of the sacroiliac joints and lumbar spine

asymmetrical peripheral arthritis

spine and sacroiliac joints

large > small joints

Insidious onset of **back or buttock ache** and **stiffness** in an **adolescent or young adult**

Symptoms are worse in the morning or after inactivity and ease with movement.

Morning stiffness is more marked than in osteoarthritis, lasting at least 30 minutes.

peripheral joint involvement

positive family history.

Extra-articular signs :

psoriasis

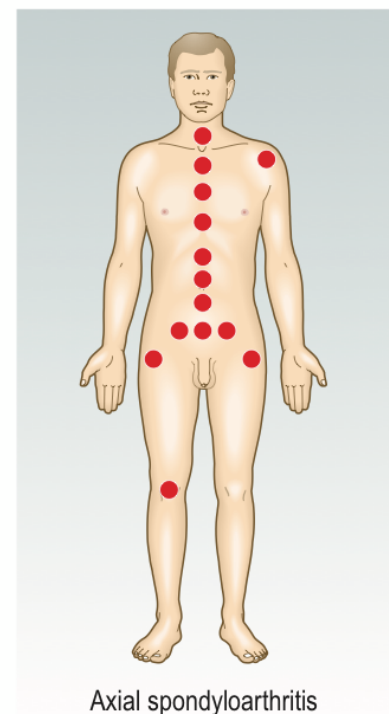
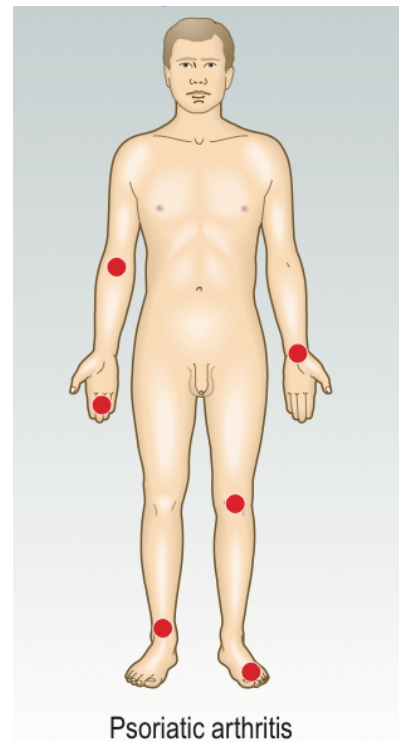
Inflammatory bowel disease

enthesitis

aortic regurgitation

apical interstitial fibrosis

acutely painful, very red eye due to iritis



gonococcal arthritis

Pain

Flitting' pain starting in one joint and moving to others over a period of days

*sexually transmitted disease

hemarthrosis

Swelling

Rapid <30 minutes

severe

This occurs when vascular structures such as bone or ligament are injured, and is worse in the presence of [anticoagulants](#) or [bleeding disorders](#).

Joint sepsis

pain

O: develops over 1-2 days.

E: present both at rest and with movement.

Sever

Fibromyalgia

a chronic pain syndrome.

diffuse , constant pain with little daily variation

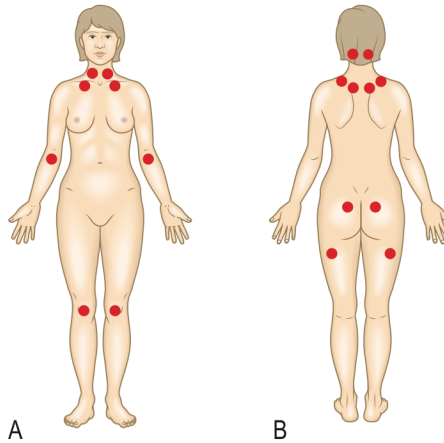
poorly controlled by conventional analgesic/anti-inflammatory drugs.

History of several years of pain with a normal examination

13.4 Clinical vignette: arthralgia and fatigue

A 34-year-old mother-of-two presents to her GP with a 1-year history of gradually worsening pain and persistent fatigue. The pain moves around and involves the back, neck, shoulders, elbows, hands and knees. All joints are described as swollen, particularly her hands, which swell 'all over'. Further history reveals poor sleep with the patient wakening every 2 hours and feeling unrefreshed in the morning. She has a difficult social background and a past history of depression and irritable bowel syndrome. Examination shows no skin or joint abnormality but there is widespread tenderness, particularly across her shoulders, in her neck and down her back (see figure). Blood tests are all normal.

She is diagnosed with fibromyalgia.



Typical tender points in fibromyalgia. **A** Anterior view. **B** Posterior view.

palindromic rheumatism

Pain

intermittent, with resolution between episodes

compartment syndrome

(increased pressure in a fascial compartment, compromising perfusion and viability of compartmental structures)

Disproportionately severe pain is seen acutely

complex regional pain syndrome.

Chronic pain

Sjögren's syndrome

'Dry eyes' (keratoconjunctivitis sicca),

xerostomia (reduced or absent saliva production)

salivary gland enlargement

neuropathy

Raynaud's phenomenon

Adult-onset Still's disease

High-spiking fevers in the evening, accompanied by a rash

hepatomegaly

splenomegaly

Other

Erythema nodosum of shins in sarcoidosis, viral rashes, drug rashes