Rheumatology in MSK

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Jack March I Rheumatology.Physio

Agenda

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- Rheumatology Overview
- Specific Conditions

Slides

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https://rheumatology.physio/courserheum

Who am I?

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Nuffield Health

CHEWS HEALTH

THE physio matters PODCAST

Other Resources

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TRUST ME ED

Why discuss Rheum in MSK?

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Some questions for you..?

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Recognition

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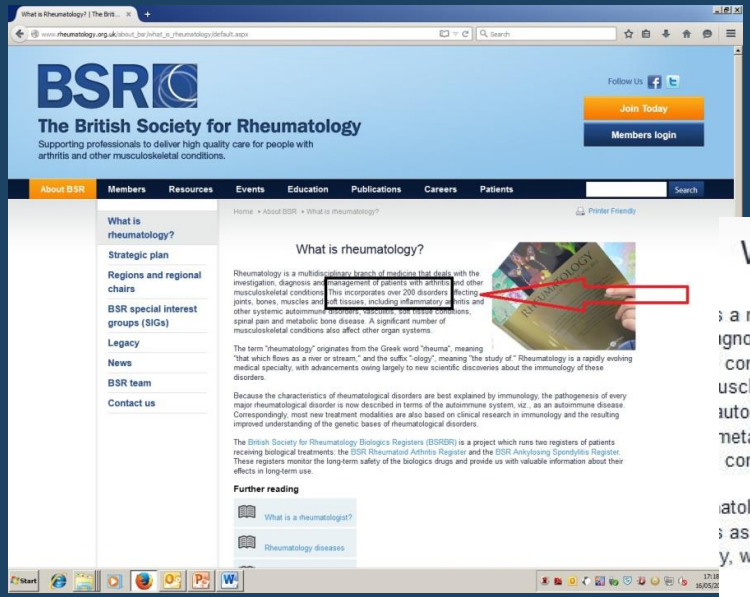

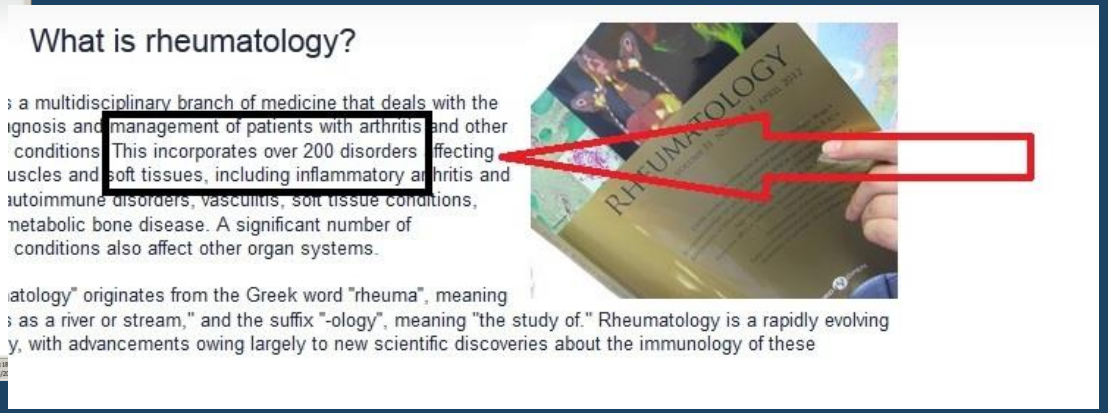

Conditions (Arthropathies)

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Rheumatoid arthritis

Spondyloarthritis

- Ankylosing spondylitis
- Psoriatic arthropathy
- Enteropathic spondylitis

Reactive arthritis

Juvenile Idiopathic Arthritis

Crystal arthropathy

Septic Arthritis

?

Conditions (Arthropathies)

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Conditions (CTDs)

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Lupus

Sjogrens

Scleroderma

Myositis (variants)

Mixed/undifferentiated

Hypermobility (variants)

Vasculitis

Giant Cell/Temporal Arteritis

?

Conditions (CTDs)

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Features of Inflammation

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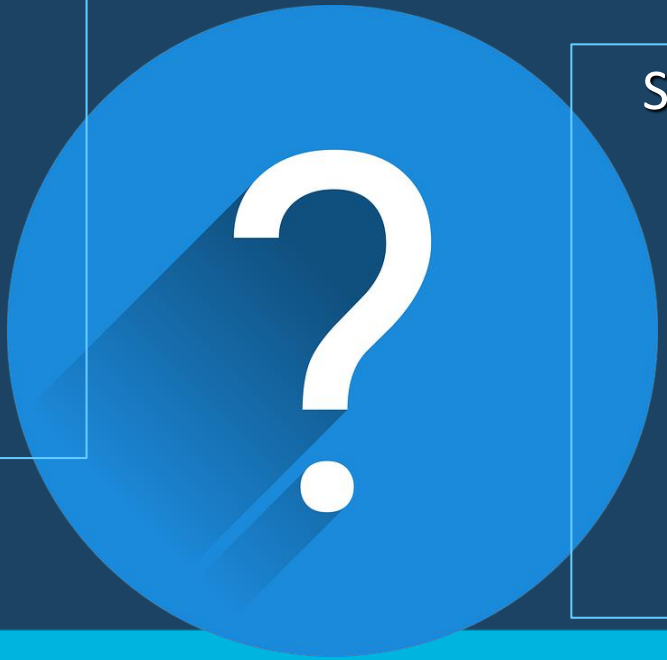
Heat

Redness

Swelling

PAIN



Stiffness (Early morning >30mins)

Night pain

Better with activity

Worse with rest

Better with anti-Inflammatories

Systemic Condition?

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Multiple systems

- Skin
- Eyes
- Gut
- Nails
- Enthesitis
- Dactylitis

Evidence of relevant:

- Past medical history
- Family History
- Concurrent conditions
- Onset

Specific conditions

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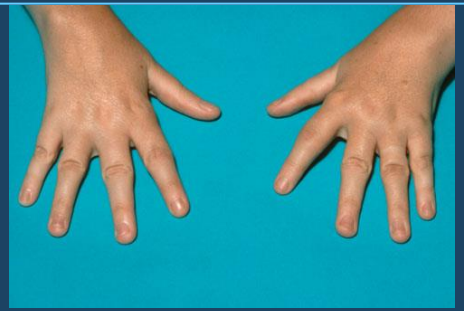
Psoriatic Arthritis

Spondyloarthritis

Rheumatoid Arthritis



Specific conditions

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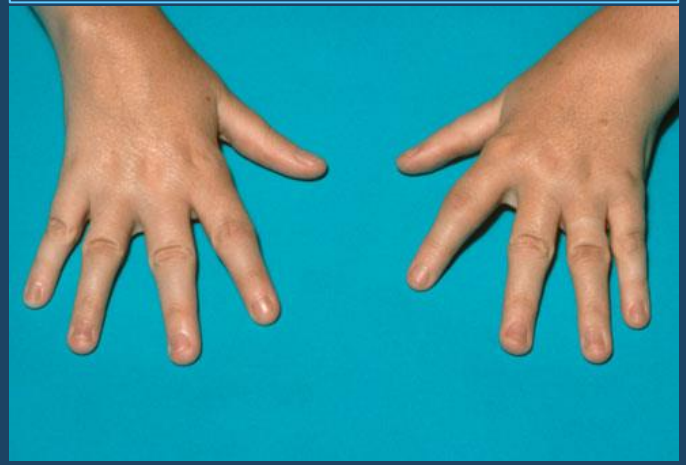
Rheumatoid Arthritis



A progressive, (symmetrical) form of autoimmune arthritis, usually involving the small joints of the hands and/or feet.

Multi-systemic, can affect the heart, lungs and eyes.

(NRAS website)

Specific conditions

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Rheumatoid Arthritis

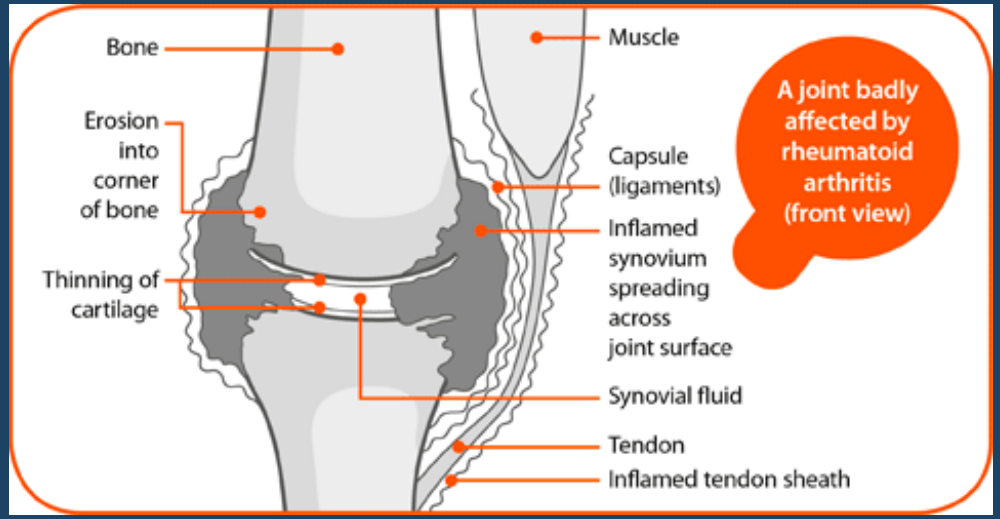

Image courtesy of ARUK

Specific conditions

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Diagnosing "Clinically Suspected Arthralgia"

1. Joint Symptoms of recent onset (<1 year)
2. MCPJs affected
3. Morning stiffness (>60 mins)
4. Symptoms worst in early morning
5. 1st degree relative with RA
6. Difficulty making a fist
7. Positive MCPJ or MTPJ squeeze test

A score of 3+/7 is consistent with "Clinically Suspected Arthralgia"

Advice for Physiotherapists Suspecting Rheumatoid Arthritis

Stage 1

Diagnosing "Clinically Suspected Arthralgia"[1]

1. Joint Symptoms of recent onset (<1 year)
2. MCPJs affected
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5. 1st degree relative with RA
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A score of 3+/7 is consistent with "Clinically Suspected Arthralgia"[1]

Stage 2

Assessing level of risk (patient scores 3+ on above or clinician retains high suspicion)

Leiden Clinical Prediction Rule.[2]

1.	What is the age in years? Multiply by 0.02		_____
2.	What is the sex?		
	a. In case Female	1 point	_____
3.	What is the distribution of involved joints?		
	a. In case small joints hands/feet:	0.5 point	_____
	b. In case symmetric	0.5 point	_____
	c. In case upper extremities	1 point	_____
	d. In case upper and lower extremities	1.5 points	_____
4.	What is the score for morning stiffness on a 100-mm VAS?		
	a. In case 26-90 mm	1 point	_____
	b. In case >90mm	2 points	_____
5.	What is the number of tender joints?		
	a. In case 4-10	0.5 points	_____
	b. In case 11 or higher	1 point	_____
6.	What is the number of swollen joints?		
	a. In case 4-10	0.5 points	_____
	b. In case 11 or higher	1 point	_____
7.	What is the C-reactive protein level?		
	a. In case 5-50 mg/litre	0.5 points	_____
	b. In case 51 mg/lire or higher	1.5 points	_____
8.	Is the patient Rheumatoid Factor positive?		
	a. If yes	1 point	_____
9.	Are the anti-CCP antibodies positive?		
	a. If yes	2 points	
		Total score	_____

A score of 9+ is optimal prediction, 8+ is high risk.[3]

Stage 3

Clinical application.

If clinically suspected Arthralgia is present and/or score of 8+ on Leiden CPR further investigations are warranted.

If clinician retains suspicion but above scores are not met due to lack of investigations completed or other reasoning commence further investigations.

Proceeding in presence of suspected RA risk

1. Referral to Rheumatology must be completed as a matter of priority before requesting any other investigations.
   a. Discuss with local Rheumatology department regarding procedure/access.

2. If able request following investigations
   a. C-Reactive Protein blood test
   b. ESR blood test
   c. Rheumatoid Factor blood test
   d. Anti-CCP blood test

Stage 4

Advise patient on modifiable risk factors. These can reduce likelihood of progression to RA
   a. Smoking
   b. BMI
   c. Diet

Note

Differential Diagnoses – other conditions can masquerade similar to Rheumatoid Arthritis. These may have differing onset, associated symptoms/conditions and presentations.

Gout, Other inflammatory arthropathy (Psoriatic Arthritis, Lupus, Axial Spondyloarthropathy, Reactive Arthropathy), Osteoarthritis, Persistent pain conditions.

This document is a guide only , it should not replace clinical reasoning or judgement. If unsure seek further advice as appropriate.

References

1. van Steenbergen et al. EULAR definition of arthralgia suspicious for progression to rheumatoid arthritis. Ann Rheum Dis 2017;76:491–496.

2. van der Helm-van Mil et al. A Prediction Rule for Disease Outcome in Patients With Recent Onset Undifferentiated Arthritis. ARTHRITIS & RHEUMATISM 2017 56(2):433–440

3. Mcnally et al. Diagnostic accuracy of a clinical prediction rule (CPR) for identifying patients with recent-onset undifferentiated arthritis who are at a high risk of developing rheumatoid arthritis: A systematic review and meta-analysis. Seminars in Arthritis and Rheumatism 2014 43:498–507

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What to do?

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- Priority 1 - RHEUMATOLOGY

- Bloods – ESR, CRP, Anti-CCP, RF
- U/S
- Advice

Stage 4

Advise patient on modifiable risk factors. These can reduce likelihood of progression to RA

a. Smoking
b. BMI
c. Diet

Differential Diagnosis

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Differential Diagnosis

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- Gout
- Other Inflammatory Arthropathy (PsA, AxSpA, Lupus, Reactive Arthritis)
- Osteoarthritis
- Persistent pain conditions
- Ca

Specific conditions

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Spondyloarthritis

A painful, progressive form of inflammatory arthritis. It mainly affects the spine but can also affect other joints, tendons, ligaments, eyes and bowels.

(NASS website)

Specific conditions

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Axial Spondyloarthritis

Peripheral Spondyloarthritis

Inflammatory Back Pain

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- Stiffness
- Nocturnal pattern
- Better with activity/worse with rest
- Onset. Insidious <45
- Improvement with anti-inflammatories

Extra articulars

- Psoriasis
- Inflammatory Bowel Disease
- Uveitis
- Crohns/colitis
- Dactylitis
- Enthesitis

- Fibromyalgia

Eyes/Fingers…

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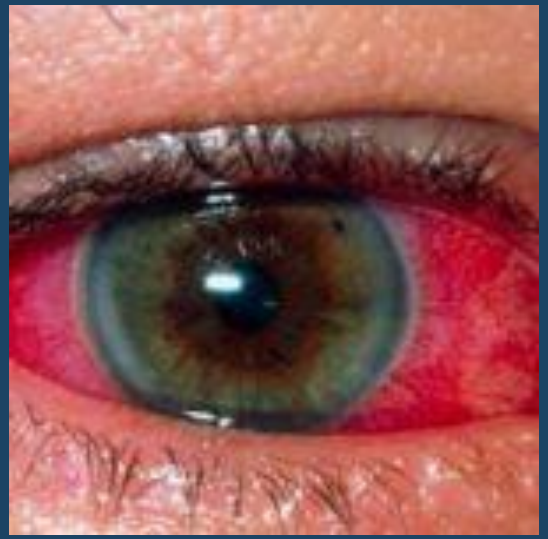

SCREEND'EM
BEFORE YOU TREAT'EM

A clinical tool to help identify spondyloarthropathy (SpA) in patients with tendinopathy.

SKIN

6-42% of patients with psoriasis develop psoriatic arthritis.

COLITIS OR CHROHN'S

Arthritis is one of the most common extra-intestinal manifestations of inflammatory bowel disease. The prevalence of SpA in patients with Chrohn's is estimated to be 26% at 6 year follow up.

RELATIVES

There is a strong relationship between SpA and HLA-B27 positive patients.

Family members of patients with SpA who are HLA-B27 positive have a 16-fold increase chance of developing ankylosing spondylitis if they are also HLA-B27 positive.

EYES

Acute anterior uveitis (AAU) can cause a painful, red eye with photophobia and blurred vision. 40% of patients presenting with idiopathic AAU have undiagnosed SpA. 50% of patients with AAU are HLA-B27 positive and >50% of these have SpA.

EARLY MORNING STIFFNESS

Inactivity related stiffness that lasts for more than 30 minutes is suggestive of inflammatory disease.

NAILS

Nail lesions occur in 87% of SpA patients and include:

- small depressions in the nail (pitting)
- thickening of the nails
- painless detachment from the nail bed (onchylosis).

DACTYLITIS

Sausage like swelling of the digits is a hallmark sign of psoriatic arthritis, occuring in 50% of cases.

ENTHESITIS

98% of SpA patients have at least one abnormal enthesis. The most common sites are the Achilles tendon, plantar fascia and patellar tendon.

MOVEMENT & MEDICATION EFFECT

SpA patients report improvement with activity but not with rest, and a favourable response to NSAIDs.

Created by Paul Kirwan

@pdkirwan

ISBN/EAN: 978-90-75823-92-9, d18 page 32

THE KNEE RESOURCE

designed by freepik.com

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Thanks to:
Paul Kirwan
@pdkirwan

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RUNNINGPHYSIO
BETTER. FASTER. STRONGER

Name..... Date of Birth.....Date.....

Tendon Health Questionnaire

Tendon health can be influenced by a host of different factors. Please spend a few minutes completing this questionnaire so we can use the information to help form the best treatment plan for you.

Please tick any boxes that apply to you then your therapist will discuss this with you in more detail;

Past medical history

Have you or any member of your immediate family had any history of the following?

Ankylosing Spondylitis ☐ Psoriasis or Psoriatic arthritis ☐ Rheumatoid Arthritis ☐ Thyroid problems ☐
Inflammatory bowel disease ☐ Crohn's ☐ Diverticulitis ☐ Diabetes ☐ Previous history of tendon pain ☐

Medication

Have you taken any of the following medications in the last year? Please provide the names if known;

Antibiotics ☐ Statins ☐ Steroids ☐ Medication names.....

General Health

Height ..... Weight..... BMI (if known).....

Have you had any of the following symptoms in the last year?

Early morning stiffness ☐ Red, hot swollen joints ☐ Eye problems (redness, pain, blurred vision) ☐
Changes to your skin or nails (rashes, nail pitting, thickening or colour changes) ☐ Back or buttock pain ☐

Any history of stress, anxiety, or depression? Yes ☐ No ☐

Mental well being at present - please tick which best applies to you;

I am not anxious, stressed or depressed ☐
I am moderately anxious, stressed or depressed ☐
I am extremely anxious, stressed or depressed ☐

On average, how many hours sleep do you get per night?..... Do you wake feeling refreshed? Yes ☐ No ☐

Do you have raised cholesterol? Yes ☐ No ☐ or high blood pressure? Yes ☐ No ☐
Are you approaching the menopause? Yes ☐ No ☐
Are you a smoker ☐ Ex-smoker ☐ or non-smoker ☐ (please tick as appropriate)

Do you worry about causing lasting damage to your tendon?
Please tick one answer that best applies to you at present;

Never ☐ Seldom ☐ Quite often ☐ Very often ☐ Always ☐

Thank you for completing this form!

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Thanks to:
Tom Goom @tomgoom

www.running-physio.com/tendonq/

What to do?

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- Priority 1 - RHEUMATOLOGY

- Bloods – ESR, CRP, HLA-B27
- MRI (SpA protocol)
- Anti-Inflammatories?

MRI protocol

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- Whole spine and SIJs
- Sagittal T1 and STIR
- Talk to your Radiology department!

Example MRI referral – Suspected Spondyloarthritis, coronal images of SIJs, sagittal images of whole spine, please include T1 and STIR sequences.

Differential Diagnosis

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DDx

- DISH
- Back pain (non specific…)
- Vertebral Fracture
- Reactive arthritis (gastroenteritis etc)
- IBD related (crohns, ulcerative colitis)
- Discitis
- Boney metastasis
- Pagets (SIJ fusion)
- Osteitis Condensans

Specific conditions

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Psoriatic Arthritis

Inflammatory joint disease associated with Psoriasis (Ps)

Prevalence in Ps population is c. 30%

https://www.psoriatic-arthritis.co.uk/

A proportion will have arthropathy symptoms prior to skin involvement… (15-20%)

Extra articulars

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- Current, history or family history Psoriasis
- Nail pitting
- Dactylitis
- Inflammatory back pain
- Enthesitis

Nails…

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Nails…

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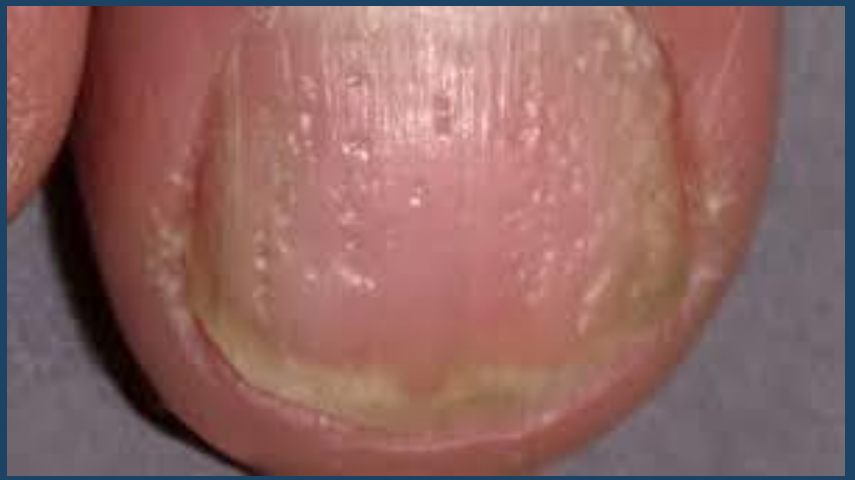

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What to do?

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- Priority 1 – RHEUMATOLOGY

- Bloods – ESR, CRP, RF*, (HLA-B27**)
- MRI/ultrasound
- Anti-Inflammatories?
- Dermatology?

* -ve 87%

** 50-60%

Coffee…

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Specific conditions

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Gout/Pseudogout

- Sudden onset often at night
- Swelling, heat, redness, pain peaking after a few hours
- Attack lasts a few days then settles
- 1/14 men (anytime after puberty), 1/35 women (uncommon before menopause)
- Risk factors, BMI (especially abdominal), alcohol (especially beer ☹), FH, DM, vascular conditions (MI, Stroke, high BP, PVD, high cholesterol)

Specific conditions

Osteoporosis

- Incidence increases with age
- Uncommon prior to age 50
- 2:1 Female:Male

Osteopenia

- Over 1/3 women and 1/5 men will sustain a fragility fracture in their lifetime
- At age 75-84 the absolute 10 year risk for sustaining a fragility fracture is approx. 24% for women and 14% for men.

Specific conditions

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Osteoporosis

- Early menopause
- Low BMI
- Crohns/colitis/IBD
- Inflammatory Arthropathies
- Smoking/high alcohol intake
- Eating disorders or food intolerances
- Cancer
- Parental fractured neck of femur
- Osteoporosis
- RED-S (Relative Energy Deficiency in Sport

Specific conditions

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Osteoporosis

- FRAX
- DXA scan

Mostly GP managed, Rheum for biologics

Physio for loading program

Case study time

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Take home messages

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- Be vigilant for inflammatory symptomology
- Be aware of multisystems
- Get friendly with your Rheumy

Thank you

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