

How To Approach a Patient with Painful Joints

Joint pain (arthralgia) is a common musculoskeletal complaint with a broad differential diagnosis. A systematic approach is crucial for accurate diagnosis and timely intervention.

1. Comprehensive History Taking

A detailed history provides over 80% of diagnostic clues in joint disorders.

A. Pain Evaluation

| Feature | Inflammatory Arthritis | Non-inflammatory (Degenerative) Arthritis |
|--------------------------|--|---|
| Timing | Pain at rest and motion | Pain mainly during activity |
| Aggravation | Worse in the morning or after rest | Worsens with activity; relieved by rest |
| Morning stiffness | > 30–60 minutes (RA, SLE, PsA) | < 15–30 minutes (OA) |
| Onset | Gradual (RA, OA), or abrupt (gout, trauma) | Gradual or post-traumatic |
| Location | Deep (synovitis) or superficial (tendon) | Often localized to weight-bearing joints |
| Referred Pain | May radiate (e.g., hip to knee) | Less common |

B. Key Symptoms and Their Clinical Implications

1. Stiffness

- *Inflammatory*: Prolonged, especially morning stiffness (RA, SLE)
- *Degenerative*: Brief, improves with movement (OA)
- *Considerations*: If stiffness doesn't involve hands/feet, RA is less likely.

2. Swelling

- *Inflammatory*: Soft tissue swelling, synovitis
- *Non-inflammatory*: Bony enlargement (osteophytes in OA)

3. Limitation of Motion

- Caused by inflammation, joint damage, or soft tissue contracture
- Often noted during daily activities (e.g., combing hair, climbing stairs)

4. Weakness

- *Disuse atrophy* around painful joints
- Weakness with pain suggests musculoskeletal origin; without pain, consider neurological/myopathic causes

5. Fatigue

- *Inflammatory*: Common; worse in the afternoon/evening
- *Psychogenic*: Fatigue on waking, linked to anxiety or poor sleep

2. Diagnostic Patterns in Arthritis

A. Temporal Pattern

| Pattern | Description | Example Conditions |
|------------------|------------------------|---------------------------------------|
| Abrupt | Onset in hours to days | Septic arthritis, crystal arthropathy |
| Insidious | Weeks to months | RA, OA, SLE |
| Acute | < 6 weeks | Viral arthritis, trauma |
| Chronic | ? 6 weeks | RA, OA, Psoriatic arthritis |

B. Pain Pattern

| Type | Description | Examples |
|---------------------|--|---------------------------------------|
| Migratory | Pain moves from one joint to another | Rheumatic fever, gonococcal arthritis |
| Additive | Pain persists and spreads to new joints | RA, SLE |
| Intermittent | Episodic joint involvement with symptom-free intervals | Gout, pseudogout, Lyme disease |

C. Joint Involvement

| Classification | Joints Affected | Examples |
|-----------------------|-----------------|---|
| Monoarthritis | 1 joint | Gout, septic arthritis |
| Oligoarthritis | 2–4 joints | Psoriatic arthritis, reactive arthritis |
| Polyarthritis | ?5 joints | RA, SLE, viral arthritis |

D. Symmetry

| Type | Features | Conditions |
|-------------------|---------------------------|---|
| Symmetric | Same joints on both sides | RA, SLE, viral arthritis |
| Asymmetric | Uneven joint distribution | Psoriatic arthritis, reactive arthritis |

E. Joint Distribution

| Joint Involved | Indicative Condition |
|--------------------------|--------------------------------------|
| Distal interphalangeal | OA, PsA, gout |
| Proximal interphalangeal | RA, SLE |
| Spine involvement | Ankylosing spondylitis (lumbar), PsA |

Joint Involved
Sparing of spine

Indicative Condition
RA

3. Distinctive Musculoskeletal Patterns

- **Spondyloarthropathies** (Ankylosing spondylitis, PsA, reactive arthritis):
 - Involve axial skeleton, entheses, dactylitis (“sausage digits”), and heel pain.
- **Gout and Septic Arthritis:**
 - Can affect joints, tendons, bursae (e.g., olecranon bursa).

4. Extra-Articular Manifestations

Clues for systemic involvement and differential diagnosis:

| System Involved | Clinical Features | Related Diseases |
|-----------------------|---|--|
| General | Fever, malaise, weight loss | RA, SLE, systemic vasculitis |
| Skin | Psoriasis, malar rash, Gottron papules, purpura | PsA, SLE, dermatomyositis, vasculitis |
| Eyes | Uveitis, scleritis, conjunctivitis | RA, AS, JIA, reactive arthritis |
| Cardiovascular | Pericarditis, conduction abnormalities | SLE, RA, vasculitis |
| Pulmonary | Pleuritis, fibrosis | RA, SLE, systemic sclerosis |
| GI/GU | Diarrhea, urethritis | Reactive arthritis, IBD-associated arthritis |

Clinical Pearls

- **Monoarthritis in elderly** ? Consider *crystal arthropathy* or *septic arthritis* until proven otherwise.
- **Symmetric polyarthritis with systemic symptoms** ? Think *RA* or *SLE*.
- **Joint pain with rash** ? Check for *SLE*, *PsA*, *dermatomyositis*.
- **Back pain in a young adult male with stiffness** ? Evaluate for *ankylosing spondylitis*.