

MECHANICAL vs INFLAMMATORY BACK PAIN

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Epidemiology

- 60-80% report back pain at some point in their life
- 6-9% of adults consult their physician for BP each year
- 75-85% of total workers' absenteeism is due to chronic BP
- >50% of pts with chronic BP suffer with insomnia

Back Pain: Inflammatory vs. Mechanical

It is important to distinguish MBP from IBP

ASAP as management is very different

Definitions

Mechanical Back Pain

Pain which arises

- Vertebral bodies
- Intervertebral discs
- Zygapophysial joints
- SI joints
- Spinal ligaments
- Paraspinal muscles
- Dura
- Spinal cord
- Nerve roots

Inflammatory Back Pain

Symptom complex indicating inflammation of vertebrae, joints and entheses of the spine

Conditions presenting with MBP

DDD

Facet joint arthritis

Spinal Stenosis

Herniated disc

Listhesis

Fracture

Sagittal imbalance

Bertolotti's syndrome



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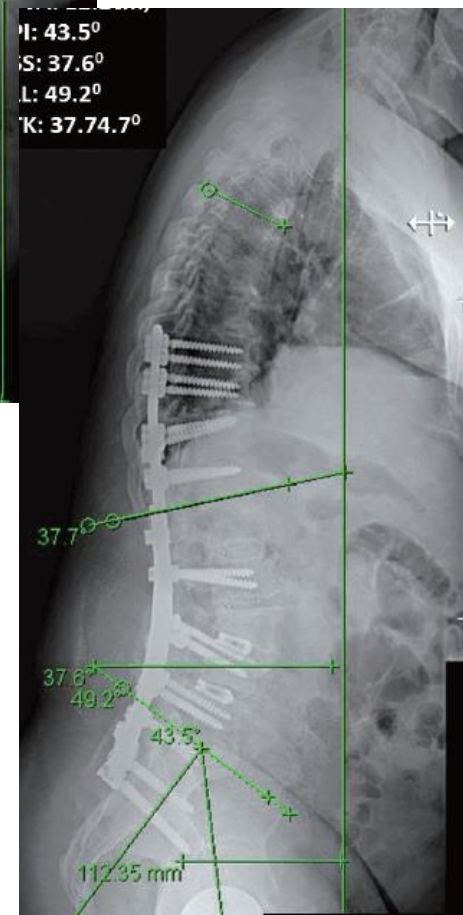
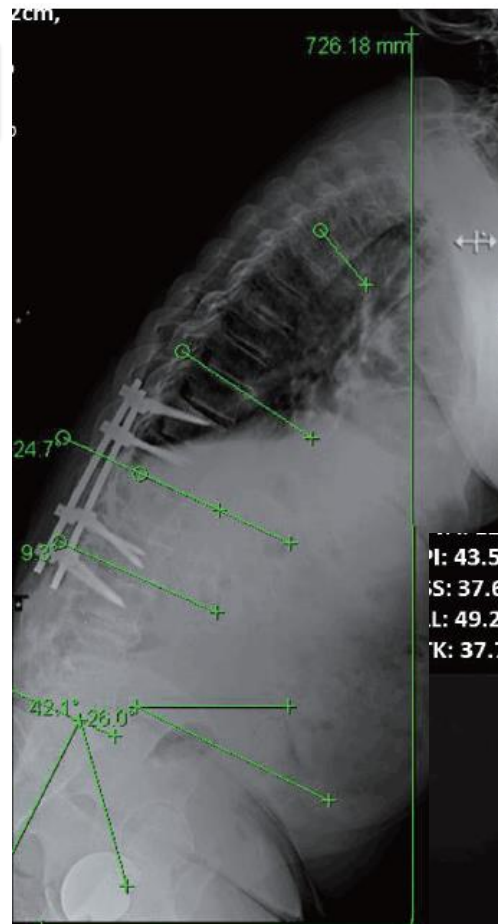
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Inflammatory arthritis

- Ankylosing spondylitis
- Psoriatic arthritis
- Reactive arthritis
- Inflammatory bowel disease
- Reiter's syndrome

Other possible sources of back pain

Abdominal aortic aneurysm

Tumors including metastases

Renal disease

GI disease

Fibromyalgia

Paget's disease

Tuberculosis (spine, SI)

Infections

- Epidural abscess
- Osteomyelitis
- Septic discitis
- Paraspinous abscess

History & PE

History & PE

How long has the pt been experiencing BP?

Back Pain: Inflammatory vs. Mechanical

Chronic BP = pain which occurs for > 3 months

MBP can be chronic but is usually acute in onset and self-limiting

IBP is always chronic

History & PE

Has the pt experienced BP previous to this?

History & PE

**Is there a family history of inflammatory
BP such as AS?**

History & PE

Does the pt have other MS problems?

History & PE

What is the usual pattern of BP over a 24 h period?

Tenderness over
entheses sites

Observed postural
changes



Pain or tenderness over the
sacroiliac joint, lumbar spine
and/or thoracic spine

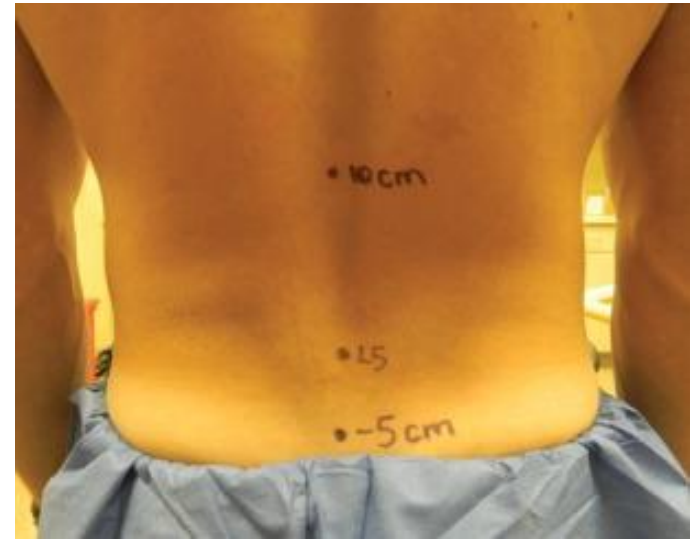
Reduction in the range
of movement in the
lumbar spine

Loss of hip
abduction

History & PE

Schober test

Lumbar stiffness if < 5 cm



Chest expansion (4 IC space)

Ankylosis of CV joints if < 2.5 cm

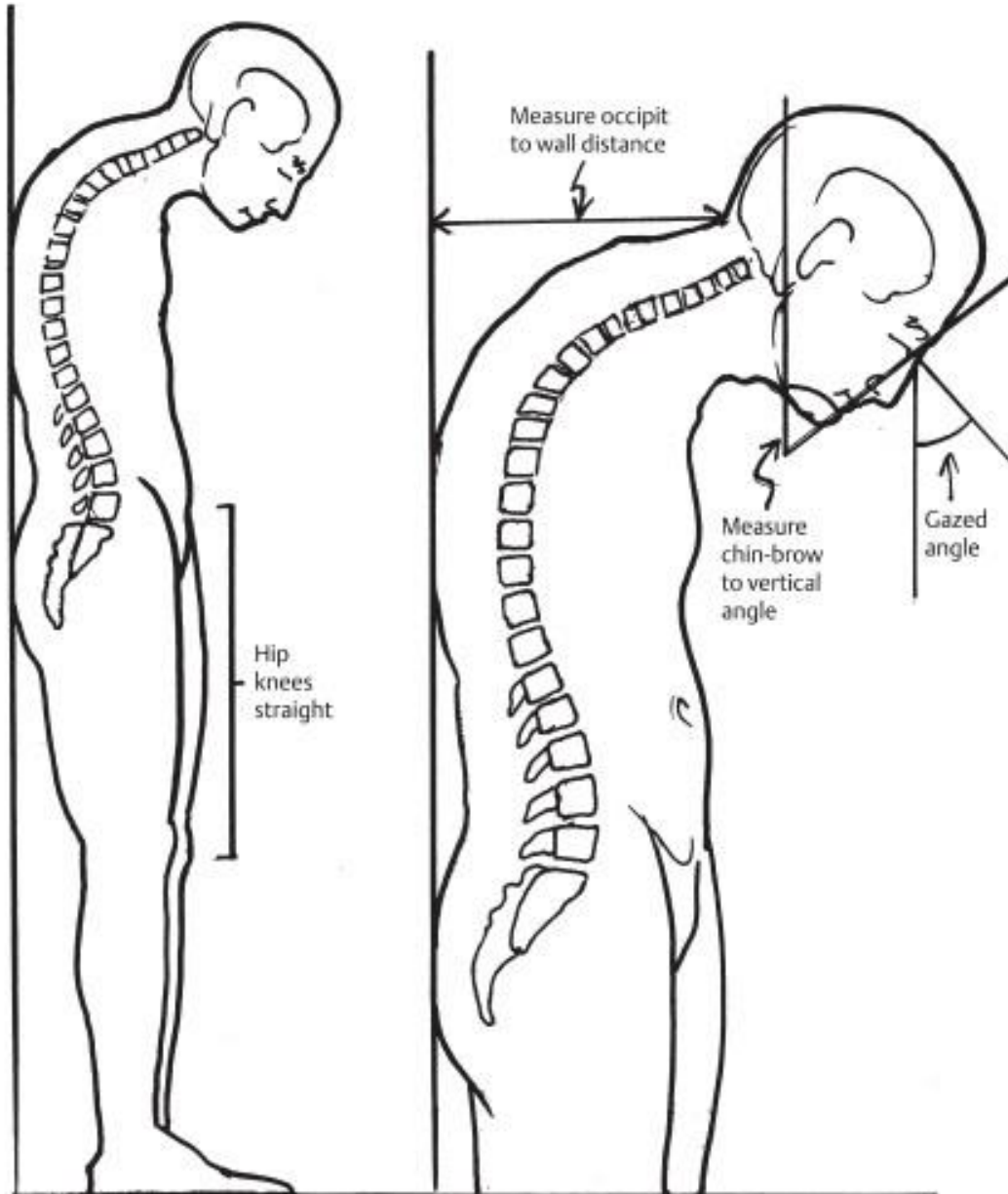


History & PE

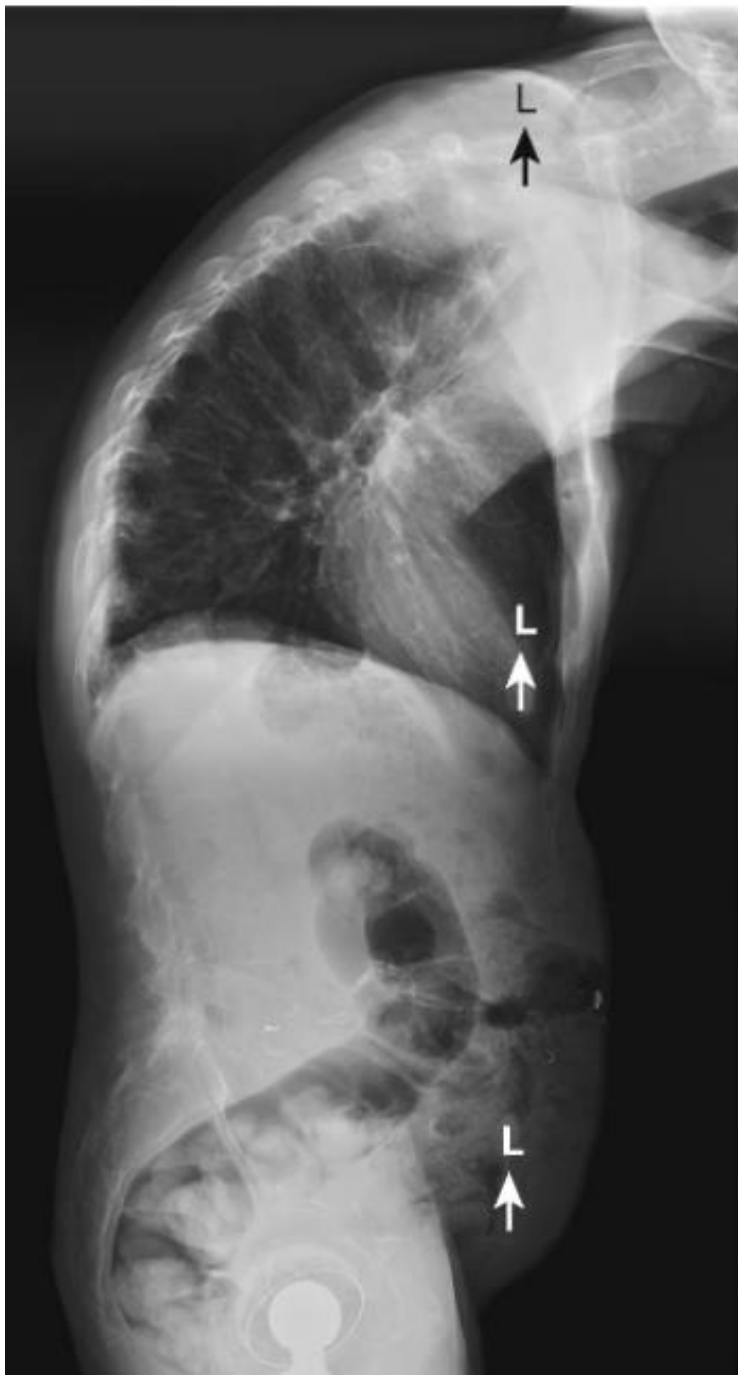
Provocative tests for SI joint pain

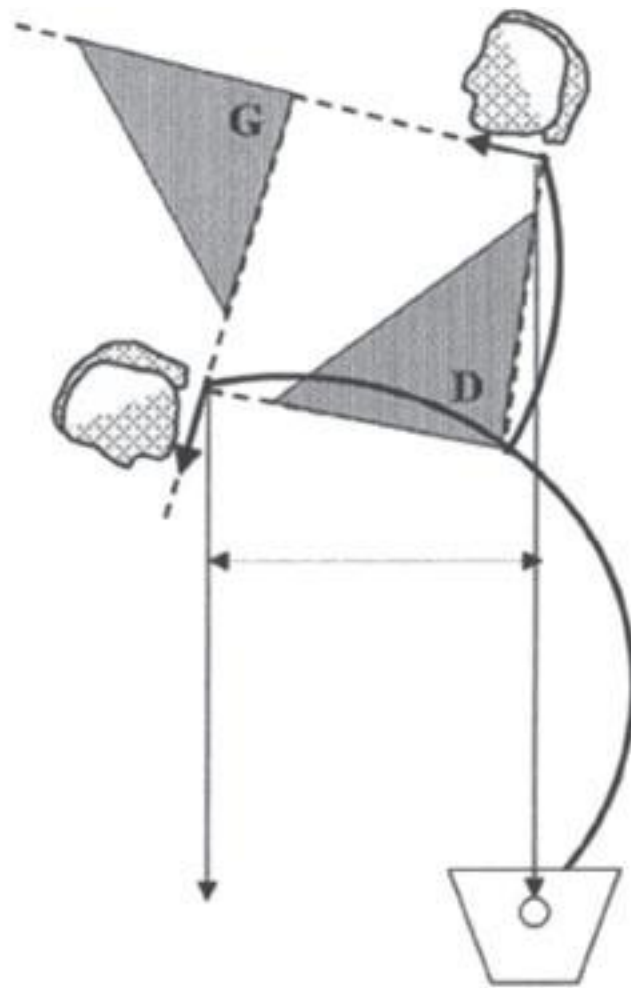
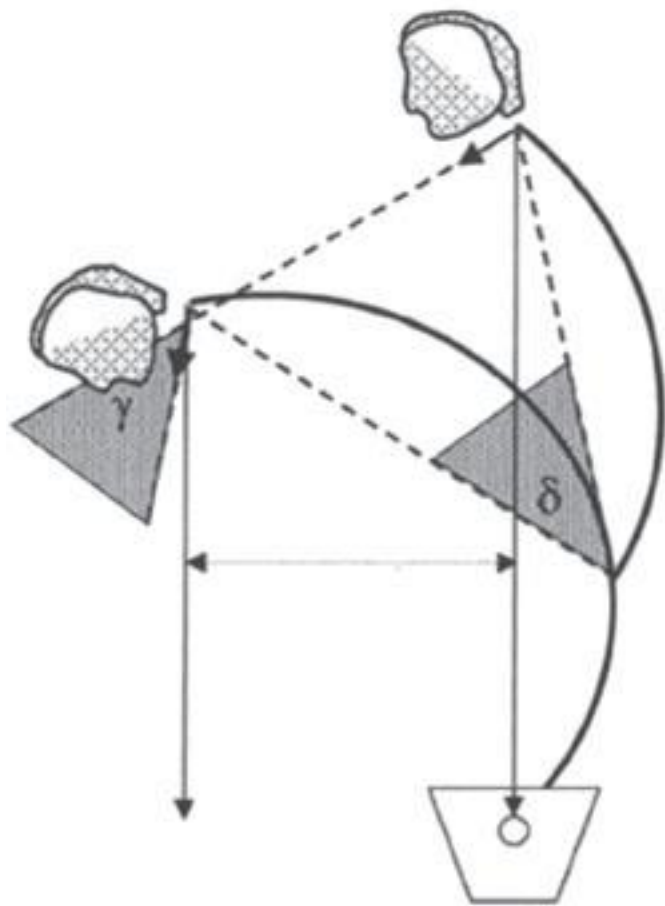
- FABER test
- Yoeman test
- Anesthetic injection under fluoroscopy



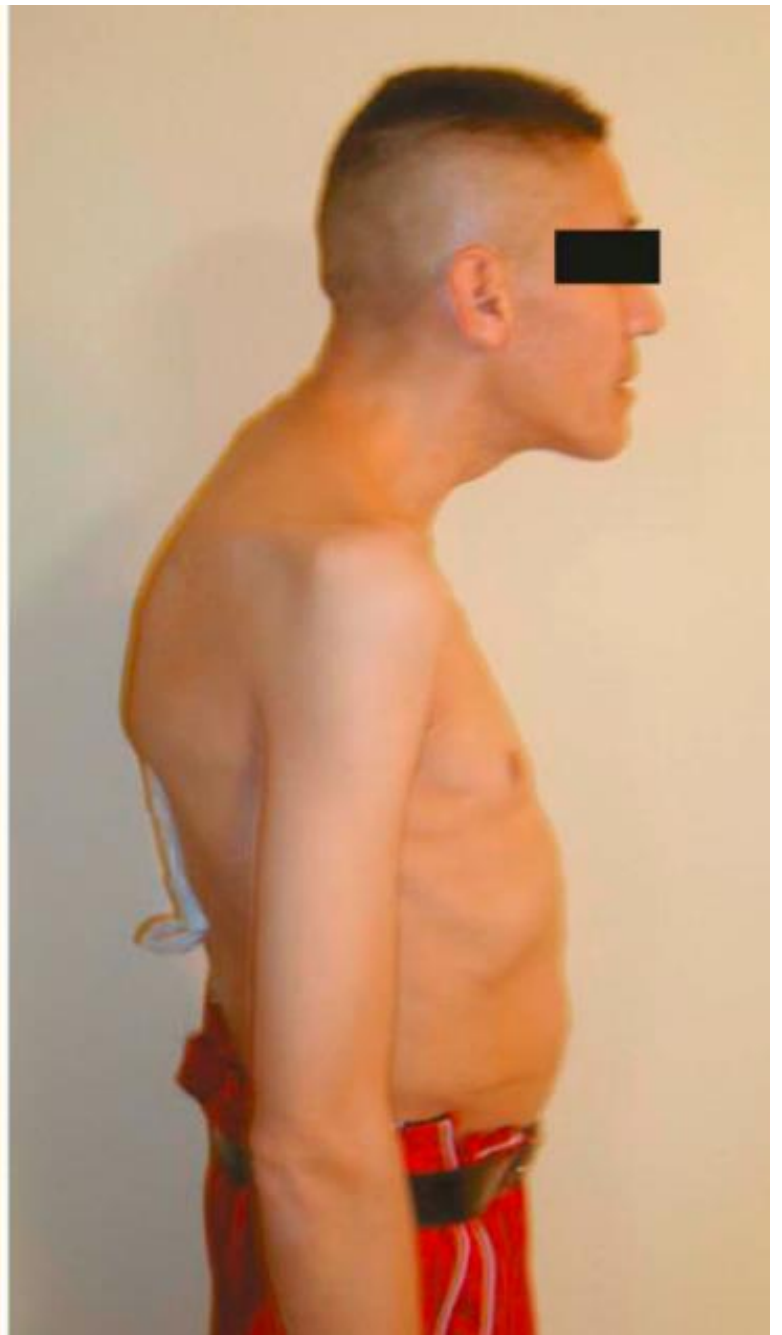












Further

Supporting

Questions

History & PE

1. Did your BP start when you were aged < 40?

History & PE

2. Did your BP developed gradually?

History & PE

3. Does your BP improve with movement?

**4. Do you find there is no improvement in BP
when you rest?**

History & PE

5. Do you suffer from BP at night which improves upon getting up?

History & PE

Further investigation for IBP when answer is

“YES” to ≥ 4

Other signs of IBP

- Good response to NSAIDs
- Morning stiffness

New criteria for inflammatory back pain in patients with chronic back pain: a real patient exercise by experts from the Assessment of SpondyloArthritis international Society (ASAS)

J Sieper,¹ D van der Heijde,² R Landewé,³ J Brandt,⁴ R Burgos-Vagas,⁵ E Collantes-Estevez,⁶ B Dijkmans,⁷ M Dougados,⁸ M A Khan,⁹ M Leirisalo-Repo,¹⁰ S van der Linden,³ W P Maksymowych,¹¹ H Mielants,¹² I Olivieri,¹³ M Rudwaleit¹

Ann Rheum Dis 2009;**68**:784–788.

ABSTRACT

Objective: Inflammatory back pain (IBP) is an important clinical symptom in patients with axial spondyloarthritis (SpA), and relevant for classification and diagnosis. In the present report, a new approach for the development of IBP classification criteria is discussed.

Methods: Rheumatologists (n = 13) who are experts in SpA took part in a 2-day international workshop to investigate 20 patients with back pain and possible SpA. Each expert documented the presence/absence of clinical parameters typical for IBP, and judged whether IBP was considered present or absent based on the received information. This expert judgement was used as the dependent variable in a logistic regression analysis in order to identify those individual IBP parameters that contributed best to a diagnosis of IBP. The new set of IBP criteria was validated in a separate cohort of patients (n = 648).

Results: Five parameters best explained IBP according to the experts. These were: (1) improvement with exercise (odds ratio (OR) 23.1); (2) pain at night (OR 20.4); (3) insidious onset (OR 12.7); (4) age at onset <40 years (OR 9.9); and (5) no improvement with rest (OR 7.7). If at least four out of these five parameters were fulfilled, the criteria had a sensitivity of 77.0% and specificity of 91.7% in the patients participating in the workshop, and 79.6% and 72.4%, respectively, in the validation cohort.

Conclusion: This new approach with real patients defines a set of IBP definition criteria using overall expert judgement on IBP as the gold standard. The IBP experts' criteria are robust, easy to apply and have good face validity.

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IBP

Age of onset <40 years

Insidious onset; less likely to be acute

Pain improves with exercise

Pain does not improve with rest

Morning stiffness >30 minutes*

Pain at night which may wake patient during second half of the night



MBP

Age of onset: any age

Variable onset; may be acute

Pain may worsen with movement

Pain often improves with rest

Thank you