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BMJ Masterclass for GPs  
**General Update**  
 Using the latest evidence to make better decisions

**Musculoskeletal Problems**  
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Declaration of interests

- I have declared that I have no conflicts of interest

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**Lumbar spine pain**  
 Page 103

Why is this important? p103

- 60-80% of adults will have back pain
- 90% LBP has no clear pathology
- 70% LBP will recur within 1 year
- 5% LBP will become chronic

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According to a recent Cochrane review, people with acute low back pain should...

3%	1. Stay in bed until it settles
97%	2. Be encouraged to stay active

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What should I already know about this condition? p103

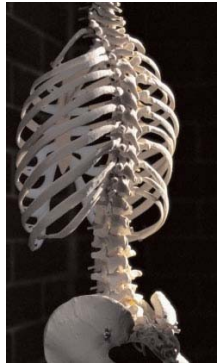
Looking for a cause of back pain

- Age linked pathology
  - Children
  - Young adults
  - Older adults
- Referred back pain
- Mechanical vs. Radicular pain

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What should I already know about this condition? p103

- How to examine the lumbar spine
  - Look
  - Feel
  - Move
  - Neurological examination of legs / perineum
  - SLR
  - Don't forget the abdomen
  - PR



What should I already know about this condition?

- Remember
  - If you don't put your finger in it , you'll put your foot in it!



What new evidence do I need to know about? p104

- Bed rest vs activity for LBP and sciatica
  - Cochrane review supports activity
- Non vs operative treatment for LBP
  - MRC study favours non operative (Functional restoration program)
- Alternative therapies...
  - Little evidence either way

When should I refer my patient? p107

- Red flags:
  - Age <20 or > 55
  - Pain at rest
  - Thoracic pain
  - Hx of Ca, Steroids or HIV
  - Unwell
  - Weight loss
  - Deteriorating neurology or cauda equina Sx
  - Structural deformity



When should I refer my patient? p107

- Off work > 8-12 weeks with no improvement
- Osteoporotic fractures that are not improving after 6 weeks

What guidelines have been produced over the last two years? p106

- Percutaneous vertebroplasty
- Disc replacement
- Percutaneous intradiscal therapy



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**General Update**  
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**Knees: Meniscal Tears and Osteoarthritis**  
 Page 119

Pain, clicking and giving way of the knee in a 60 yr old lady is most likely to be caused by...

4%		1. ACL rupture
79%		2. Osteoarthritis
2%		3. Metastatic disease
15%		4. Meniscal tear

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Why is this important? p119


- 25% of over 55s have knee pain each year
- Meniscal pain common in 20s-50s
- Osteoarthritis common in >50s

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What should I already know about this condition? p120

- Osteoarthritis**
  - Mostly in over 50s
  - Pain is exacerbated by exercise
  - Swelling, deformity, loss of range
  - Xrays show reduced joint space
  - Physio, weight loss, walking aids, analgesia help
  - Intra articular steroids help short term
  - Arthroscopic surgery helps mechanical symptoms
  - Total joint replacement relieves pain and improves function

**Knee Osteoarthritis**



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What should I already know about this condition? p119


- Meniscal tears**
  - Acute tears in young adults often follow sport
  - Degen tears in 40s-50s may have quiet history
  - Sx: clicking, catching, locking, diff. squatting
  - Joint line tenderness common
  - Xrays may be normal
  - MRI sensitive and specific
  - Arthroscopic meniscectomy the treatment of choice.



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What should I already know about this condition? p119

- How to examine the knee**
  - Joint lines
  - Effusion
  - ROM
  - Crepitus
  - Jack's test
  - Collaterals
  - Cruciates
  - Squatting test vs McMurray



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What should I already know about this condition?

- Total Knee Replacement
  - Good for pain relief
  - 90% 10yr survival



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Which of the following are an indication for knee replacement?

- 2% 1. Doesn't like taking tablets
- 1% 2. Unable to exercise so overweight
- 1% 3. Xrays show osteoarthritis
- 97% 4. Persistent pain affecting daily activities despite maximal conservative therapy



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What should I already know about this condition?

Complications

- Infection
- Fracture
- Wear
- Loosening
- Revision
- Neurovascular injury
- Bleeding and transfusion
- DVT and embolus
- Chronic pain syndrome
- Loss of life or limb



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What new guidelines have been produced over the last two years? p120

- NICE guidelines on OA 2008

3.2.2 Targeting treatment

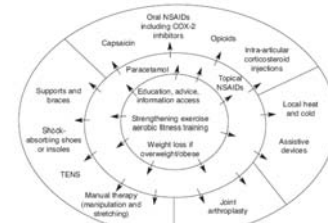


Figure 3.2 Targeting treatment algorithm. COX-2 = cyclooxygenase-2; NSAIDs = non-steroidal anti-inflammatory drugs; TENs = transcutaneous electrical nerve stimulation.

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What new evidence do I need to know about? p120

Unicompartment Knee Replacement



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Anterior cruciate ligament  
Posterior cruciate ligament

Meniscal repair

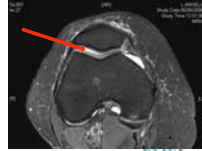
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## Practical management tips

### Knee Injection

- Aseptic ('no touch') technique
- Depomedrone/Triamcinolone
- 10ml 0.5% Marcaine
- Relaxed quads



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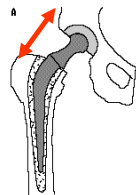
## General Update

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### Hip pain and total hip replacement Page 113

## What should I already know about this condition? p113

- How to examine the hip
  - Trendelenburg
  - Movements
  - Thomas' test



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## Why is this important? p113

- 60,000 THRs per year in UK
- Survival
  - 90% at 10 years
- Indications
- Quality of life issues



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## What should I already know about this condition? p113

### Common complications

- DVT
- Embolus
- Infection risk (approx 1%)
- Dislocation risk (1-4%)
- Death

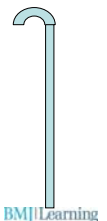
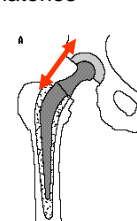


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## Practical management tips p115

- Non surgical methods should be tried
  - Weight loss
  - Physio
  - Analgesics/Anti-inflammatories
  - Stick in opposite hand
  - Shoe raise
  - Helping hand
  - Sock thing



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## When should I refer my patient? p115

- Pain that is not controllable
- Night pain
- Uncertainty about diagnosis

## What new evidence do I need to know about? p114

### • Surface replacements

- More conservative bone cut
- Larger head therefore more stable
- Hard bearing surface ? Longer lasting
- Not smaller operation
- Still get wear particles
- Cobalt + Chromium
- Inflammatory masses
- Fractures



## What new evidence do I need to know about? p114

- Navigation
- Hip arthroscopy



## General Update

Using the latest evidence to make better decisions

Shoulder pain: frozen shoulder and subacromial impingement  
Page 125

## The most striking loss of motion in 'frozen shoulder' is ...

- 31% 1. Abduction
- 36% 2. External rotation
- 19% 3. Internal rotation
- 14% 4. The painful arc

## Why is this important? p125

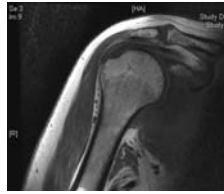
- Shoulder pain common
- Rotator cuff and frozen shoulder problems commonest cause of shoulder pain



What should I already know about this condition? p125

- Impingement

- Part of spectrum leading to rotator cuff tears
- Supraspinatus tendonitis, subacromial impingement, bursitis
- 5<sup>th</sup> 6<sup>th</sup> 7<sup>th</sup> decades
- Painful arc / 'thumbs down' sign
- Interventional treatment ranges from subacromial injections to subacromial decompression



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What should I already know about this condition? p126

- Frozen shoulder

- Synovial inflammation and subsequent capsular fibrosis
- Aetiology ?
- Loss of range especially **external rotation**
- Usually self limiting but may take >2 years to resolve
- Normal Xray needed to exclude other pathology

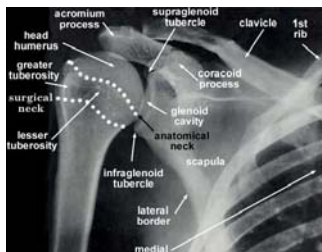
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What should I already know about this condition? p125

- Examining the shoulder

- Painful arc
- Thumbs down (Neer)
- External rotation



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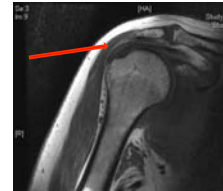
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Practical management tips p126

### Shoulder Injection

#### Subacromial

Lateral approach



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Practical management tips p126

### Shoulder Injection

#### Glenohumeral

Posterior approach



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When should I refer my patient? p127

- If Diagnosis is in doubt
- Failure to improve with 1 or 2 injections and physio
- Red flags:
  - Suspicion of tumour
  - Infection
  - Trauma and loss of contour
  - Neurological lesion

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# General Update

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## Other Orthopaedic Advances

Chronic Osteomyelitis can be treated successfully in:

53%	1. 10% of patients
23%	2. 50% of patients
14%	3. 75% of patients
10%	4. 95% of patients




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Other orthopaedic advances

### Chronic Osteomyelitis

- New antibiotic carriers
- Plastic surgery
- Bone infection unit
- 95% long term disease control



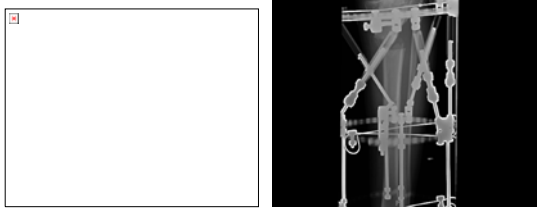
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Other orthopaedic advances

### Complex deformity Corrections

Taylor Spatial Frame



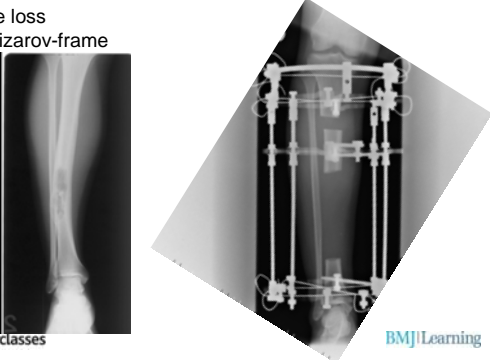
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Other orthopaedic advances

### Bone loss

Iizarov-frame



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Other orthopaedic advances



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Thank you

Any Questions?