

# Dr John Best

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# Managing Gluteal Weakness and Pain



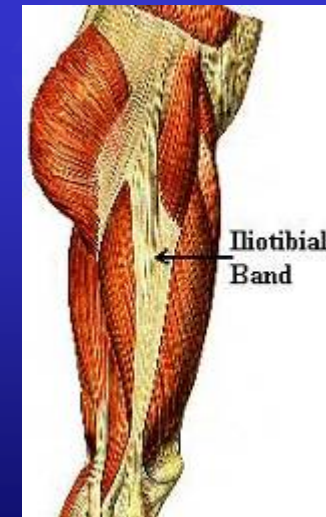
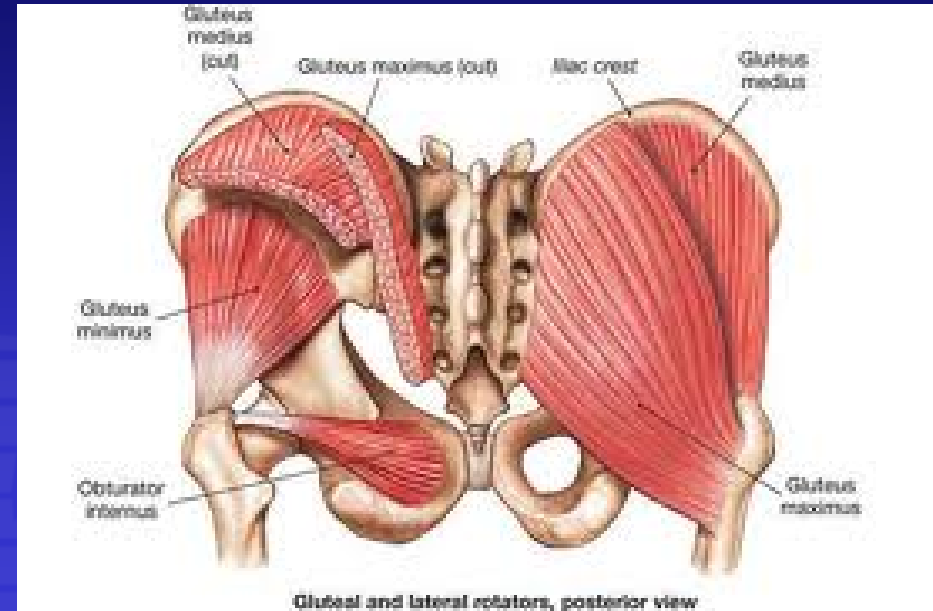
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# Anatomy Overview

- Gluteal complex
  - Maximus
  - Minimus
  - Medius
  - TFL
- Innervation
  - L4 – S2
  - Superior and inferior gluteal nerves



# Gluteal Muscles

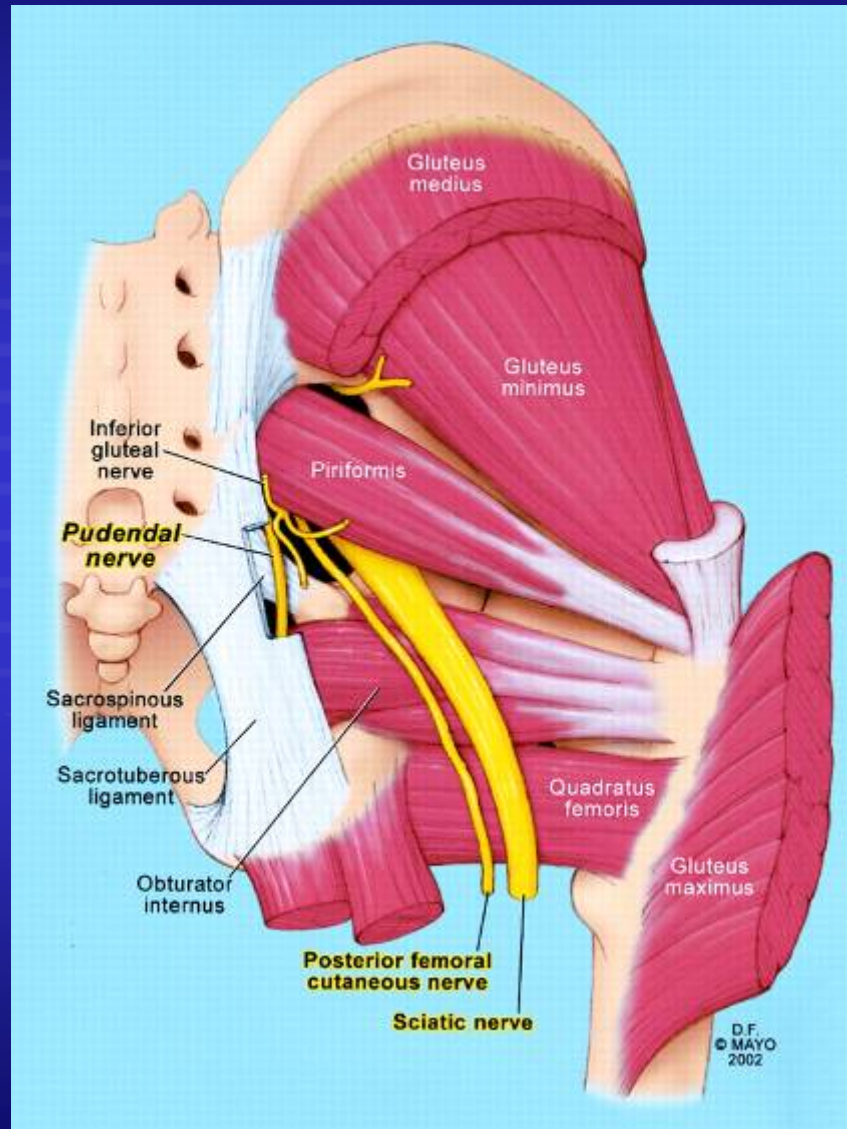


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# Anatomical Variations



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# Gluteal Weakness

- Affects performance
  - Inefficiency in load transfer (Heiburg et al 2013)
- May lead to injury (?antalgic gait)
  - Tendon or bursal pathology
  - Hip joint / bone stress (Schnackenburg et al 2013)
- Leads to personalised rehabilitation
  - Kemp et al (2012) – peak torque and function
    - 15 people (18-50 years)
    - Hip strength affects performance



# Testing power

- Manual testing
  - Focus on abduction and rotation
  - Pain free
  - Avoiding impingement
  - Through range
  - ?Prone



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# Testing Power and Control

- Functional testing
  - Bridge
  - Squat
  - Lunge
  - Climb
  - Run
  - Resistance



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# Testing Power and Control



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# Advancing Testing and Rehab



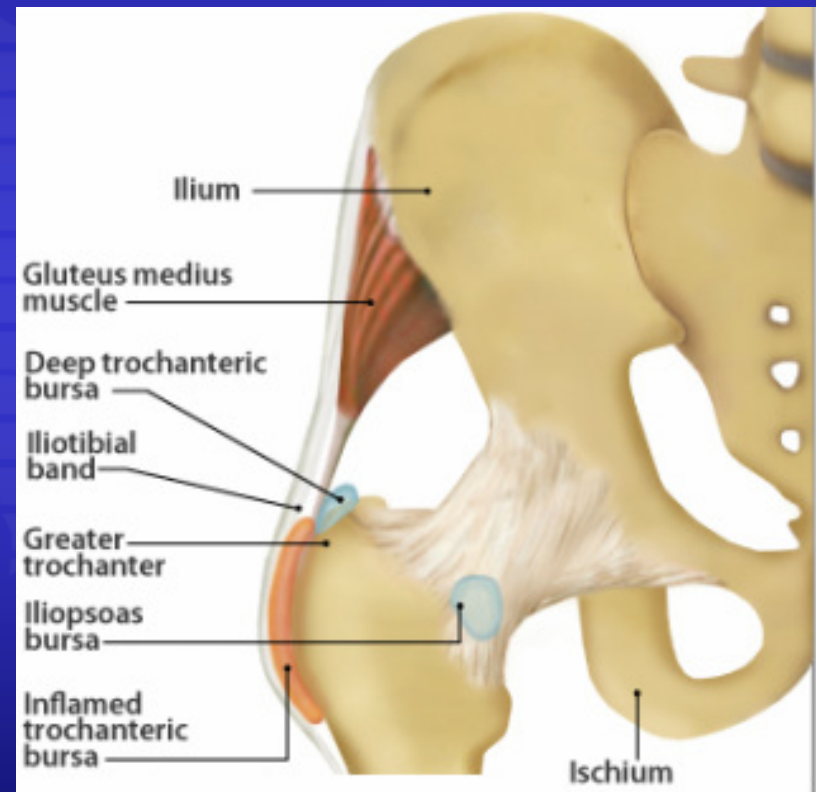
# Advanced Testing and Rehab



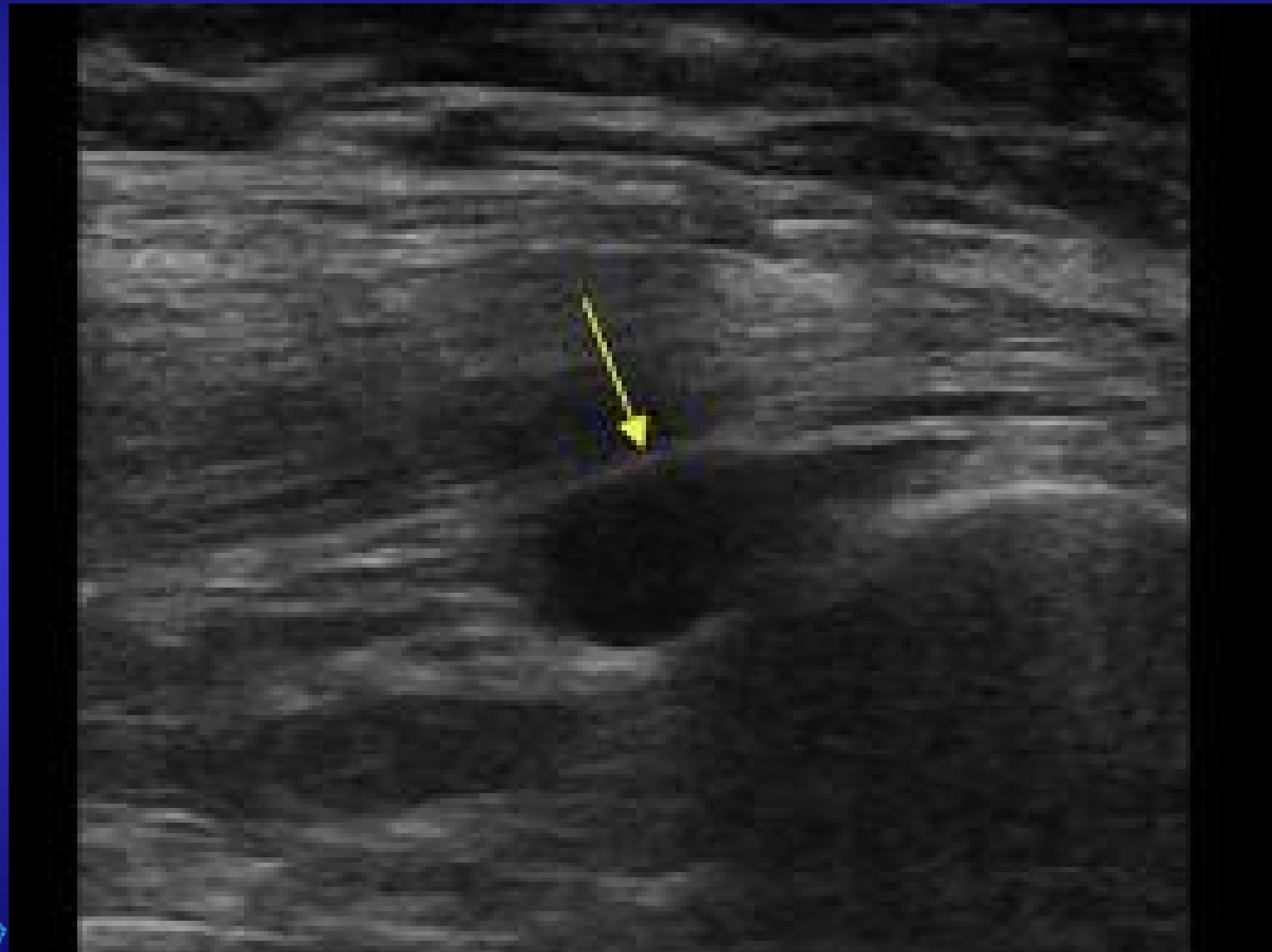
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# Gluteal Weakness and Pain

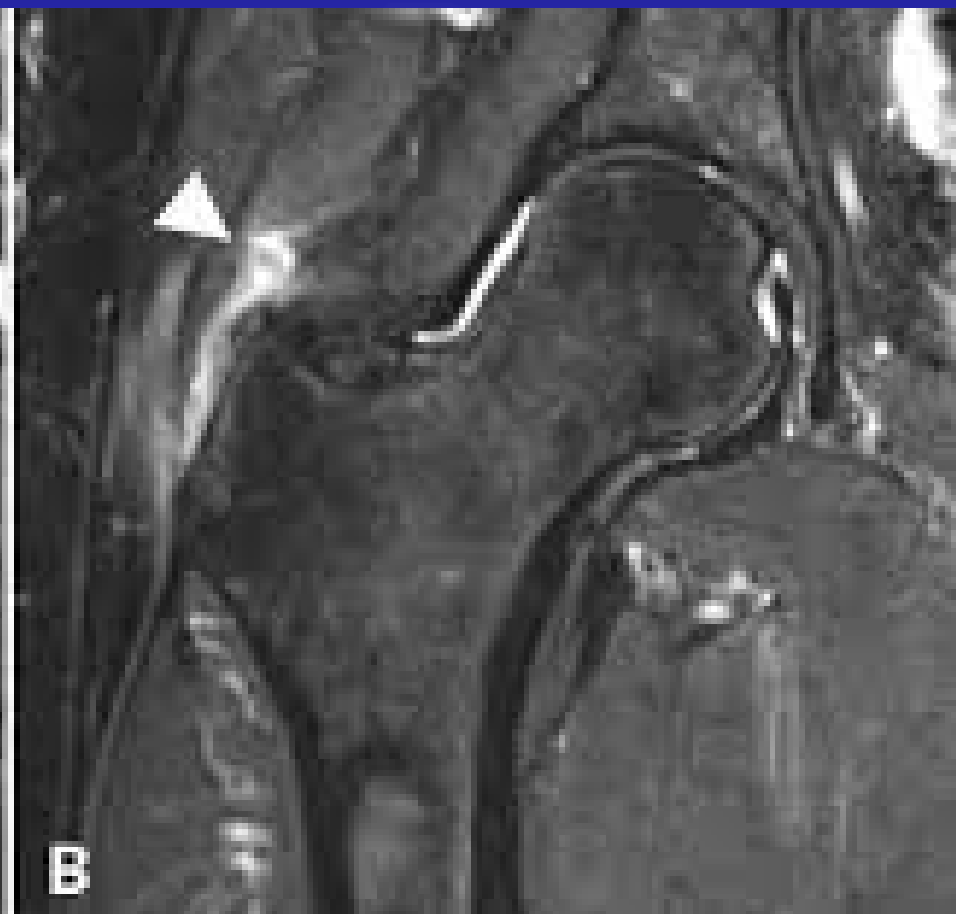
- Bursal pain
- Tendon Pain
- Other pain
  - Impingement
  - OA
  - Piriformis
  - Referred
  - SIJ



# Imaging Lateral Hip Pain - Bursal



# Imaging Lateral Hip Pain - Bursal

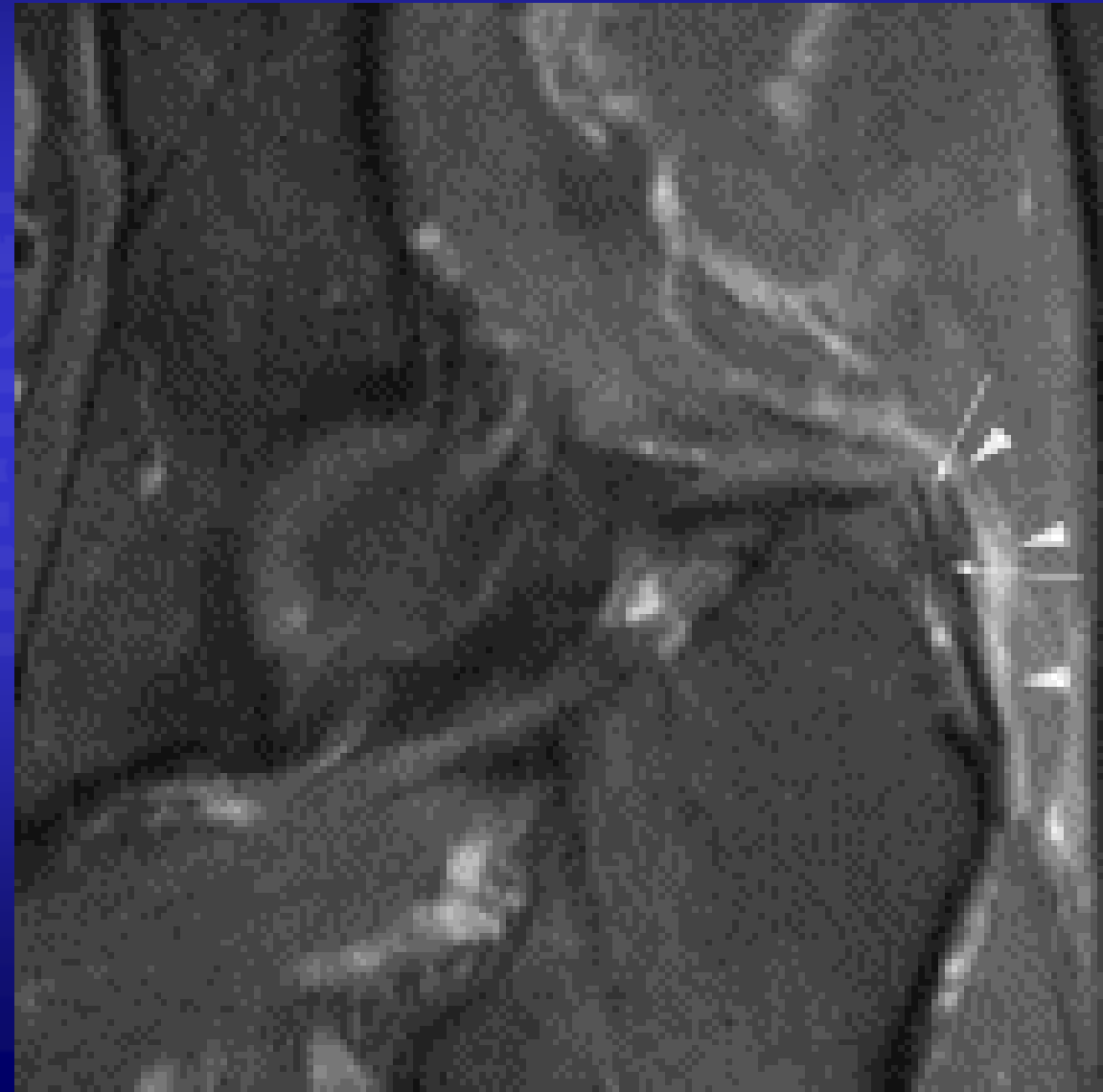
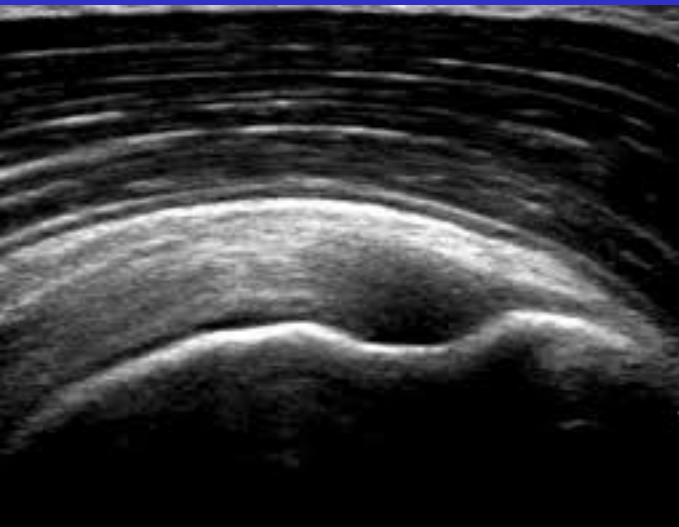


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# Imaging Lateral Hip Pain - Tendon



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# Treatment Options

## Pain and Function

### Bursal

- Medications
  - Analgesia, NSAIDs
- Injections
  - Cortisone /LA
- Physical Treatment
  - Limited; unloading
- Surgery
  - bursectomy

### Tendon

- Medications
- Injections
  - Cortisone, PRP (Platelet)
- Physical Treatment
  - Strengthening
- Surgery
  - Repair (?Lars ligament)
  - ?endoscopic





# Managing Gluteal Weakness and Pain

- Assessment of strength is best performed pain-free
- Combined pain and weakness requires a patient, lengthy, graduated treatment program
- Invariably non-operative



# Thank you



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