

Shoulder Instability and Tendon Injuries

Shoulder Update
Spire Hospital Leeds
November 2017

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Consultant Shoulder and Elbow Surgeon



Simon Boyle

- York and Leeds Nuffield
- Trained in Yorkshire, Annecy, Wroughtington and Australia
- Professional sports injuries
- Shoulder arthroscopy and arthroscopic bone block transfers



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The 'Old Days



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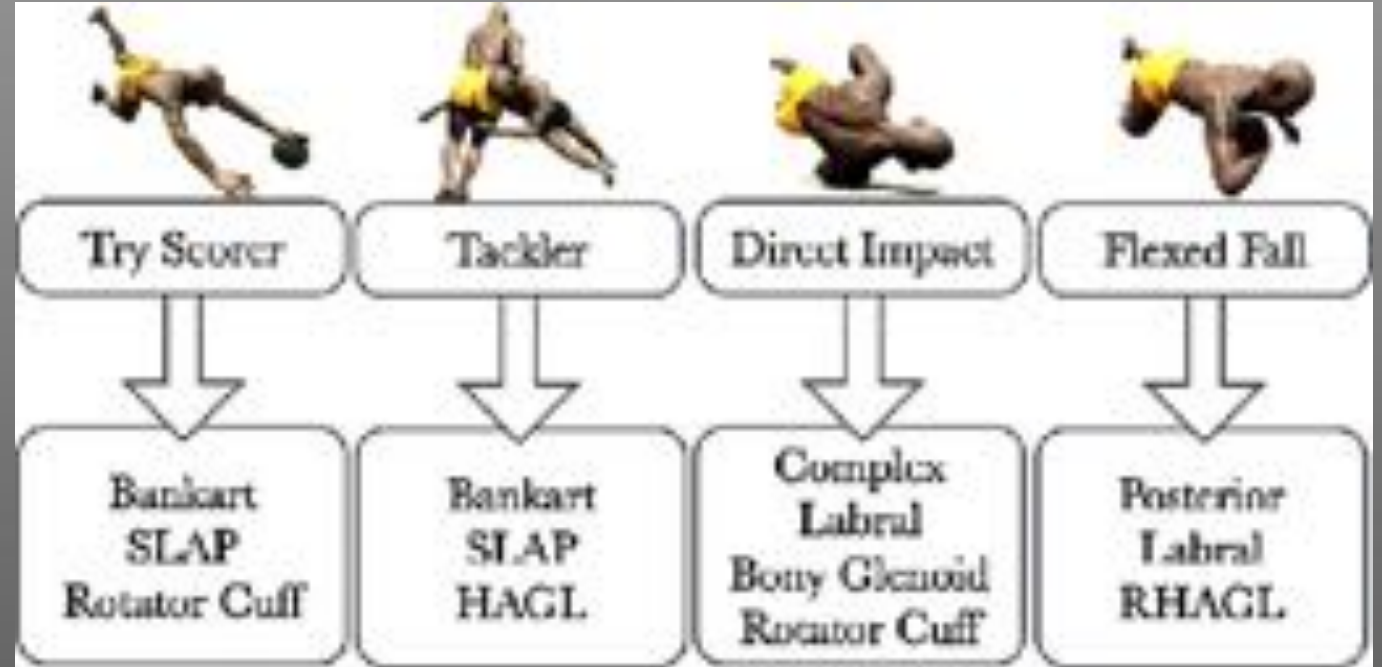
Shoulder Dislocations

- How they occur
- Examination Pearls
- Will they occur again?
- Why refer?
- When to refer?
- Tendon Ruptures



How Do Dislocations Happen

- video analysis
- patterns of injury



Treatment of glenohumeral instability in rugby players.
Funk, L. Knee Surg Sports Traumatol Arthroscopy. 2016; 24: 430–439

Forced Hyperflexion - Fall Forwards



- arm forward flexed and forced into hyperflexion
- large lever
- Bankart tears, Hill-Sachs lesions
- Cuff tears

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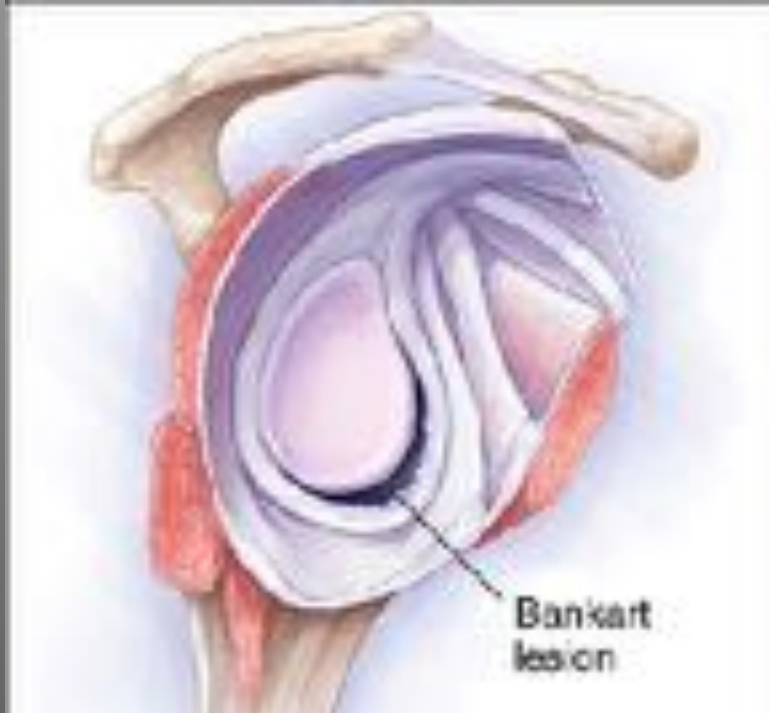
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- forced extension whilst shoulder abducted
- usually 90 deg abduction and ext rotation
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Direct Impact



- high energy
- medially directed force
- bony injuries more common
 - glenoid rim fractures
 - clavicle fractures
 - ACJ injuries

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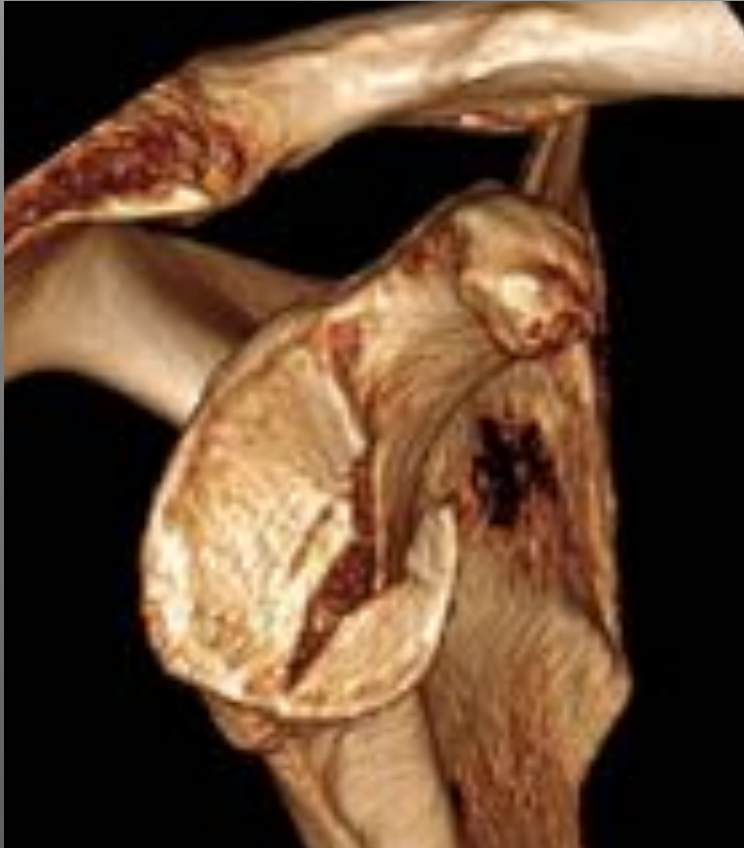
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Flexed Fall

- posteriorly directed force on flexed arm
- images posterior structures
 - posterior labrum
 - reverse HAGL lesions
 - posterior cuff injuries



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Examination Pearls

- Core strength - **Kinetic chain**
- Scapulothoracic rhythm
- Range of movement/Cuff
- Apprehension signs
- Hyperlaxity - Beighton score, sulcus



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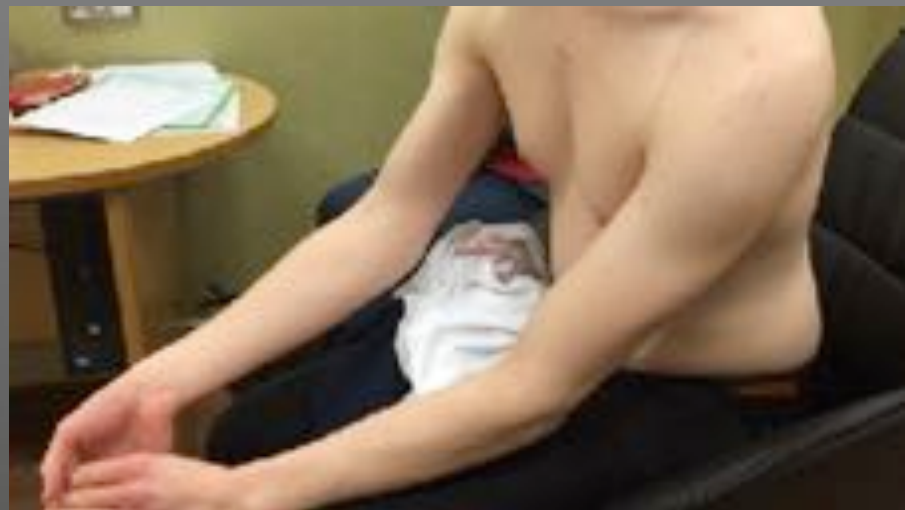
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Hyperlaxity



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Examination Under Anaesthesia

- Invaluable information
- Physio present



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- Physio present



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Will it Happen Again?

- Non-operative management
- Age and Sex
 - Robinson JBJS Am 2006
- Sport
- Overhead occupation



British Journal of
Sports Medicine

Risk factors which predispose first-time traumatic anterior shoulder dislocations to recurrent instability in adults
Olds M, Ellis R, Donaldson K, Parmar P, Kersten P.
Br J Sports Med. 2015 Jul;49(14):913-22

Yorkshire Shoulder Clinic



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TABLE IV Age and Sex-Specific Estimated Probability of Recurrent Instability within the First Two Years After a Primary Glenohumeral Dislocation

Age (yr)	Males	Females
15	0.86	0.54
16	0.84	0.51
17	0.81	0.48
18	0.78	0.45
19	0.75	0.42
20	0.72	0.40
21	0.69	0.37
22	0.66	0.34
23	0.62	0.32
24	0.59	0.30
25	0.56	0.28
26	0.53	0.26
27	0.50	0.24
28	0.47	0.22
29	0.43	0.20
30	0.41	0.19
31	0.39	0.17
32	0.36	0.16
33	0.34	0.15
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Senior Dislocations (>40)

- 20% < of all dislocations
- lower energy injury
- recurrence rate low
- >40% cuff tears
- Over 66
 - >50% chance of cuff tear



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- 20% < of all dislocations
- lower energy injury
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Examine and Scan if Suspicious

Why Refer?

- Randomised Controlled Trial
- Recommended immediate arthroscopic stabilisation in patients who are younger than 30 years, higher level athletes, and the timing for surgery is good or their sport is risky (rugby, football, kayaking, rock climbing)
- Surgeon specific results



The True Recurrence Rate and Factors Predicting Recurrent Instability After Nonsurgical Management of Traumatic Primary Anterior Shoulder Dislocation: A Systematic Review
Arthroscopy Journal 32(12) 2016: 2616-2625

Does Surgery Make a Difference?

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Does Surgery Make a Difference?

Yes

80% reduced to 5 - 15%

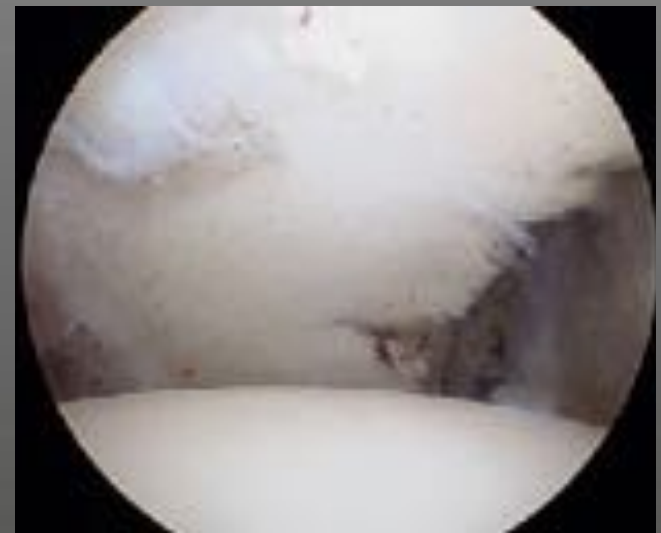
When to refer?

- As soon as possible
- Sports season
 - off season
 - during season
 - during the school year
- Work



Types of Surgery

- repair the lesion - all keyhole
- day case
- Soft tissue repair
 - Labral repair
- Bony reconstructions
 - Latarjet



What to Expect Post-op

- Sling/work
- Rehab guide
- What patient can do and less of what they can't
- Sport and position specific

YORKSHIRE SHOULDER CLINIC
— LEEDS | YORK | HARROGATE | ELLAND —


ARTHROSCOPIC POSTERIOR LABRAL REPAIR STABILISATION



www.yorkshiresoulder.com

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ARTHROSCOPIC POSTERIOR LABRAL REPAIR STABILISATION

PLAYER X

SURGEON - SIMON BOYLE

January 26th 2017

Indications:

- Performed for shoulder instability with a posterior labral tear
- MRI – Posterior labral tear
- EUA – gd III posterior laxity

Protocol:

	Post op
Day 1 to Week 4	<ul style="list-style-type: none"> • Aim <ul style="list-style-type: none"> • Pain control • Personal hygiene • Avoid <ul style="list-style-type: none"> • No combined Forward flexion and adduction • No combined forward flexion with Internal rotation exercises • Treatment <ul style="list-style-type: none"> • External rotation brace for 4 weeks. • Finger, wrist and radio ulnar movements • Elbow flexion & extension in standing • Teach axillary hygiene • Teach postural awareness and scapular setting • Passive and active assisted abduction as comfortable to 60 degrees in scapular plane • Core stability exercises with sling
4 -6 Weeks	<ul style="list-style-type: none"> • Aim <ul style="list-style-type: none"> • Increase passive and active assisted ROM • Wean from sling • Avoid <ul style="list-style-type: none"> • No combined forward flexion/abduction with Internal rotation exercises • No combined forward flexion with adduction • Treatment <ul style="list-style-type: none"> • Body belt & wedge removed gradually between 4 and 6 weeks • Gentle pendular exercises avoiding adduction • Active assisted flexion as comfortable • Active assisted abduction to 90 degrees • Active assisted external rotation as comfortable • Commence proprioceptive exercises (minimal weight bearing below 90 degrees)

www.yorkshiresoulder.com

Instability Summary

- Young first time dislocators - high risk of recurrence
- Correct surgery reduces recurrence
- Refer young dislocators
- Older dislocators - Cuff!
 - scan and refer



Tendon Ruptures

- What to refer urgently?
 - surgery within 3 weeks
- What can wait (elective referral)?
 - surgery not needed/elective



Long Head of Biceps

- common pathology
 - males >50
 - manual workers
 - biceps migrated distally
- Non-operative
- Operative
 - rare



Distal Biceps Rupture

- uncommon pathology
 - males 30-50
 - sudden eccentric loading
 - biceps migrated proximally
 - hook test
- Non-operative
- Operative
 - <3 weeks of injury



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Pec Major Rupture

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- upper/mid arm bruising
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- Operative
 - better strength at 1 year



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Tendon Ruptures Summary

- Long head ruptures
 - reassure
- Other ruptures refer urgently
- Not sure?
 - refer urgently

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