Teaching Center

Akuta axelskador

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Karolinska Institutet

STOCKHOLM SPORTS TRAUMA RESEARCH CENTER

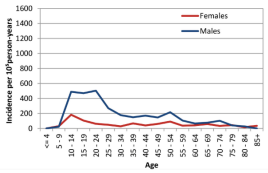
Capio

1

- >1/3 av alla idrottsskador involverar övre extremiteter
- Axelskador är högst hos den yngre befolkningen
- Samma skador ses hos idrottare som hos den 'normala befolkningen'

2

- Incidens för sportrelaterade skador är högst för yngre män



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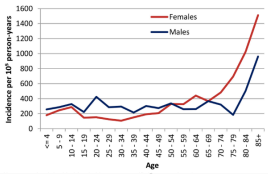
- Incidens för sportrelaterade skador är högst för yngre män
- Incidensen för icke-sport relaterade skador ökar drastiskt >70



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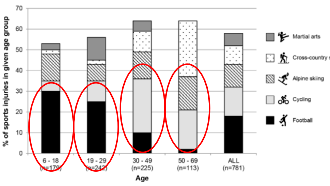


- Fotboll orsakar flest skador & är dominant i lägre åldrar
- Skidor & cykel dominerar hos de äldre

5

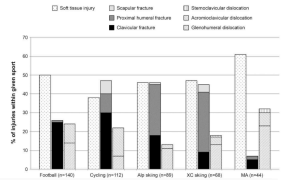
- Könsskillnader mellan sporter

Sport	Males (%)	Females (%)	Total (%)
Football (soccer)	133 (22)	7 (4)	140 (18)
Cycling	94 (15)	22 (12)	112 (14)
Alpine skiing	76 (12)	13 (8)	89 (11)
Cross-country skiing	42 (7)	26 (15)	68 (9)
Martial arts	40 (7)	4 (2)	44 (6)
Ice hockey	31 (5)	–	31 (4)
Snowboarding	25 (4)	5 (3)	30 (4)
Jogging	11 (2)	14 (8)	25 (3)
Strength training *	20 (3)	5 (3)	25 (3)

- Fotboll orsakar flest skador & är dominant i lägre åldrar
- Skidor & cykel dominerar hos de äldre

6

- Även skadepanoramat skiljer sig åt mellan olika sporter

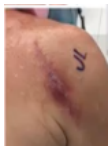


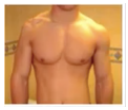
7

The Basics

Palpate

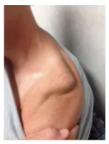
Incisions





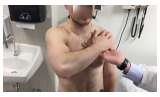
Atrophy

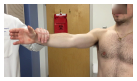
Deformity



8

- Axelstatus!
- Var frikostig med vanlig slät-rtg
- Remittera om du är osäker





9

Proximal humerusfraktur

10

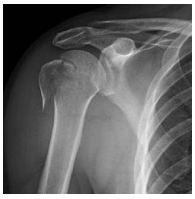
Proximal humerusfraktur

4-6% av alla frakturer

Vanligt hos äldre, ofta lågenergitrauma

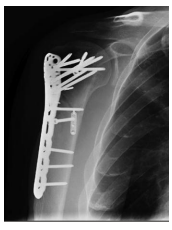
Yngre ofta högenergitrauma

Risk för nerv(axilaris) och kärlskada



11

- Röntgen!
- Odislocerade fx – konservativ behandling –
  Behandling m slynga 6-8v
- Yngre – kirurgi om dislocerad fx



12

Klavikelfraktur

13

Klavikelfraktur

2-4% av alla frakturer

<30 år, oftast män

80% mittdiafysära

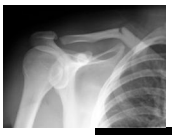
Direkttrauma eller fall mot axel

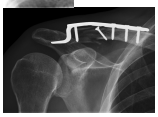
14

Oftast konservativ behandling

Indikation för kirurgi;
>2cm dislokation
Risk för hudpenetration

Komplikationer;
Non-union (upp till 15%)
Malunion (oftast inga symptom)





15

RTP;

- ca 8-12v läkningstid
- 6-12 v progressiv ROM-träning
- Belastning efter läkning(~6 v)
- Risk för refraktur om för tidig återgång till idrott
- Kirurgi kan minska RTP-tid

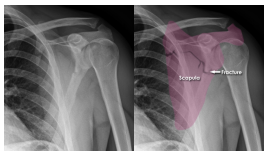
16

Scapulafraktur

17

Scapulafraktur

- Ovanlig!
- Oftast högenergitrauma, men ses ibland vid idrott
- Oftast konservativ behandling



18

19

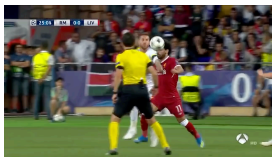
AC-ledsluxation

19

20

AC-ledsluxation

- 17% of all shoulder injuries during sports
- Direct blow to the shoulder
- Up to 18% concomitant lesions e.g. SLAP lesions



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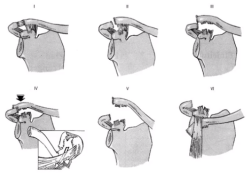
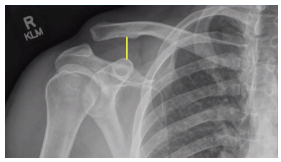




Rockwood 1984

21

22

Review > J Orthop Trauma. 2018 Jan;32(1):1-9. doi: 10.1097/BOT.0000000000001004.

Operative Versus Nonoperative Management of Acute High-Grade Acromioclavicular Dislocations: A Systematic Review and Meta-Analysis

Nicholas Chang [1], Andrew Furey, Anton Kurdin

Meta-analysis 2018

- 954 patients
- Better cosmetic & radiographs w. surgery
- Equal DASH & RTS
- Slightly better constant score w. surgery
- Complications & infections still a problem
- OLDER TECHNIQUES

22

23

> Am J Sports Med. 2016 Oct;44(10):2667-2674. doi: 10.1177/0363546516643721. Epub 2016 Apr 22.

Epidemiology of Acromioclavicular Joint Sprains in 25 National Collegiate Athletic Association Sports: 2009–2010 to 2014–2015 Academic Years

Elizabeth E Hibberd [1], Zachary Y Kerr [2], Karen G Roos [3], Aristarque Djoko [3], Thomas P Dompier [3]

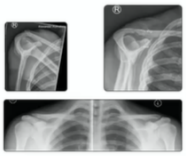
- 25 sport, 844 ACJ-injuries
- Men's football, ice hockey, wrestling
- 1% surgery
- Usually, RTP <6w

23

24

What are we measuring?

ASES – 50/50 function and pain



Case: Failed conservative Treatment Type IIIb (Type IV)

24

Treatment decision (my approach – Level 5)

Grade I-II;
Conservative treatment, OK to inject and play

Grade III;
Start conservative for 3m, unless cosmetically unacceptable or unhappy patient. Don't wait forever!

Grade 4-6;
Surgery

Higher risk
- Heavy manual workers
- Overhead athletes
- Males
- Young and middle age

Lower risk
- Contact athletes (Ice hockey)
- Not heavy workers
- Female
- Older age

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25

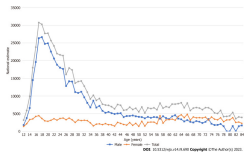
GH-luxation

26

GH-luxation

- 29/100.000 person/year
- 2.64:1 Male:Female
- 16-18 years

- Kan vara både anterior (95%) och posterior (5%)



27

Ålder spelar roll!

- Yngre – Stor risk för reluxation

- Äldre – Stor risk för RC-skada
  - 41% 40-55yo
  - 71% 56-70yo
  - 100% >70yo

Article	Incidence and Age
McLaughlin (Am J Surg '50)	90% in < 20 y/o
Rowe (JBJS '84)	94% in < 20 y/o
Kralinger (AJSM '02)	61% in 21-30 y/o
Robinson (JBJS '06)	87% in 15-20 y/o
Hovelius (JBJS '08)	50% in < 26 y/o 72% in < 23 y/o

28

- Axeln hålls utåtroterat & abducerad
- Kolla puls och uppenbara frakturer
- Förstagångsluxation → röntgen

29

Evidence surgery?

12 studies (Level I, II)

87% men, 21.7y

Outcome scores higher across the board in arthroscopic stabilization

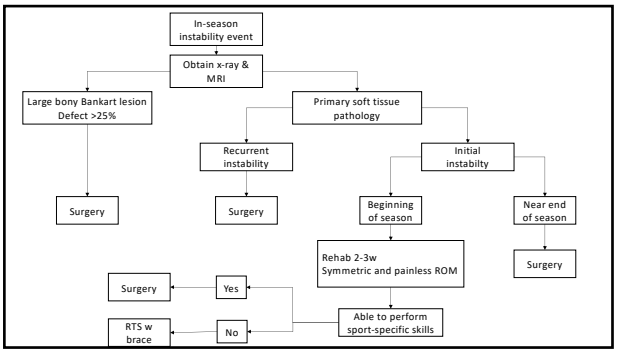
Review > Eur J Med Res. 2023 Jul 27;28(1):260. doi: 10.1186/s40001-023-01160-0.

Arthroscopic Bankart repair versus conservative treatment for first-time traumatic anterior shoulder dislocation: a systematic review and meta-analysis

Bin Hu [1 2], Jiangiao Hong [1 2], Haiolao Zhu [1 2], Shigui Yan [1 2], Haobo Wu [3 4]

	Bankart	Conservative Treatment
Recurrent dislocation	7.5%	53.0%
Further surgery	5.6%	37.8%
RTP (same level)	83.5%	66.0%

30



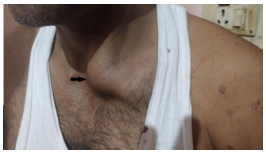
31

SC-ledsluxation

32

SC-ledsluxation

- Ovanligt, men förekommer vid "high impact"-sports
- Direkt trauma
  - anteromedial clavicle --> posterior dislocation (potentiellt livshotande)
  - Posterolateral shoulder force --> anterior dislocation (ofta kvarvarande instabilitet)



33

RTP;
Slynga el liknande 3-6v
Påbörja fysoterapi 3v

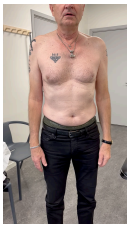
Successiv återgång till idrott 3m

34

Rotatorkuffskada

35

Rotatorkuffskada



- Symptomatisk vs. asymptomatisk
  (30% >60 år har asymptomatisk RC-skada MR)
- Traumatisk vs. Degenerativ
- Genomgående vs. Partiell
- Vilken/vilka senor

36

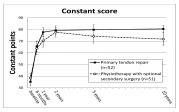
- Svaghet, nattlig värk och ev utslagen kraft
- MR/Ultraljud
- Behandling beror på många faktorer -> remiss till ortoped!

37

Randomized Controlled Trial > J Bone Joint Surg Am. 2019 Jun 19;101(12):1050-1060.
doi: 10.2106/JBJS.18.01373.

At a 10-Year Follow-up, Tendon Repair Is Superior to Physiotherapy in the Treatment of Small and Medium-Sized Rotator Cuff Tears

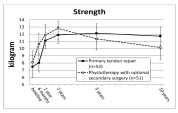
Stefan Moosmayer [1], Gerry Lund [1], Unni S Seljom [1], Benjamin Haldorsen [1], Ida C Svege [1], Torli Hennig [1], Are H Pripp [2], Hans-Jørgen Smith [3]



91/103 pat, 14 pat cross-over

Primary RC-surgery sig. superior in all categories (clin relevant)

Non-surgical increased in tear size (mean, 10 mm in width and 6 mm in retraction).



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38

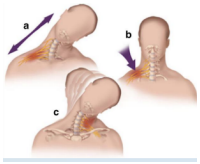
'Stinger'

39

'Stinger'

Uppkommer ofta i high-impact-idrott

Neuropraxia av brachial plexus
- traktion
- kompression
- direkt trauma



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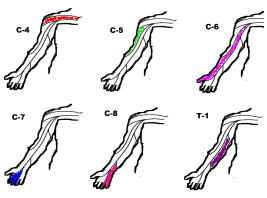
- Dead-arm syndrome
- Ofta skarp smärta eller stickningar i en arm, ej dermatombundet
- Övergående svaghet C5-C6



41

RTP;

Om symptomen försvinner och normal status (återfått styrka)

Kontraindikation;
- Flera i samma match
- Neurologiska symtom
- Inskränkt ROM el nacksmärta
- Bilat symptom
- Misstanke om nack/huvudskada

42

43

Tack!

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43