

# Conservatieve behandeling van schouderklachten

NERASS Najaarscongres  
“Schouder aan Schouder”  
29-11-2013  
Zeist



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## Doel van NERASS is:

*De bevordering van de kwaliteit van reumachirurgie in Nederland door uitwisseling van kennis tussen medische specialisten en andere wetenschappers die zich bezighouden met de reumatische aandoeningen en met name met de chirurgische therapie en de indicatie hiertoe dan wel postoperatieve behandeling daarvan.*

## Doel van mijn presentatie:

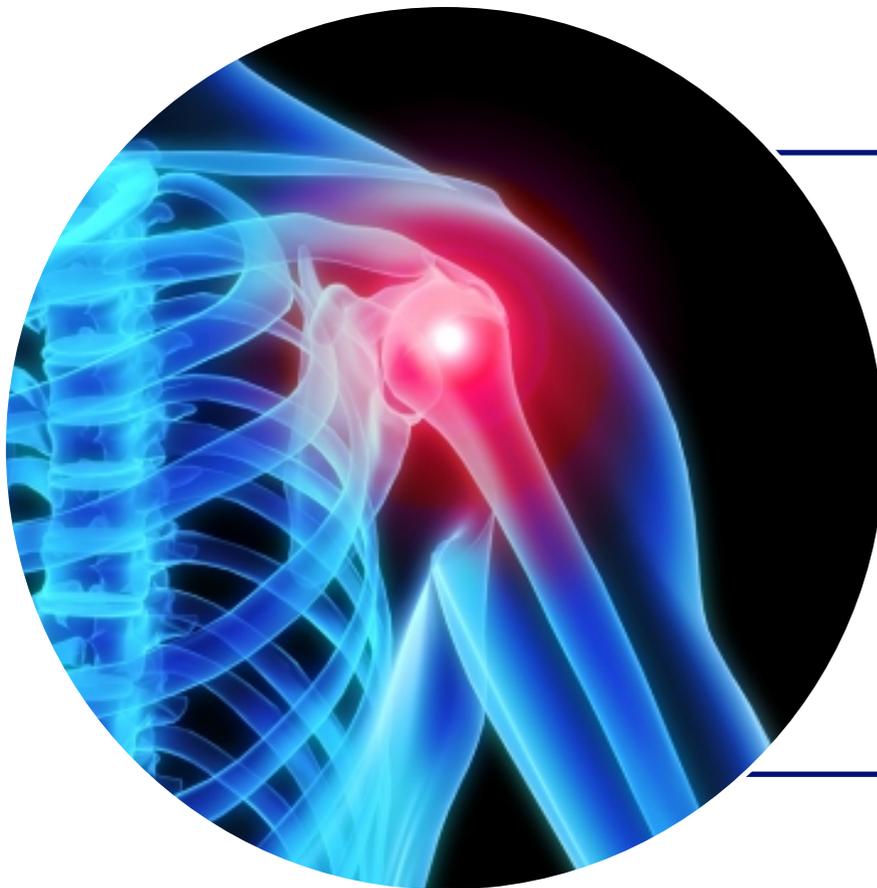
*Uitwisseling van kennis op het gebied van conservatieve therapie van de schouder dan wel pre-operatieve behandeling daarvan.*

[Arthritis Rheum](#). 2003 Oct 15;49(5):665-72.

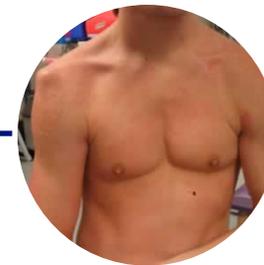
## **Adherence and satisfaction of rheumatoid arthritis patients with a long-term intensive dynamic exercise program (RAPIT program).**

[Munneke M](#), [de Jong Z](#), [Zwinderman AH](#), [Jansen A](#), [Ronday HK](#), [Peter WF](#), [Boonman DC](#), [van den Ende CH](#), [Vliet Vlieland TP](#), [Hazes JM](#).

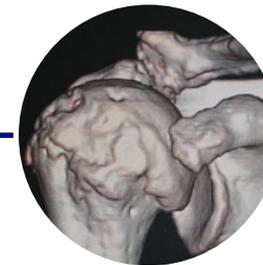
- 146 RA pt-en
- Intensief trainingsprogramma 2 jaar 2x per week
- Concl: hoge therapie trouw (81%) en functie tevredenheid (72%), geen toename van gewricht schade.
- Advies: onafhankelijk van individuele verschillen in functie en pijn scores adviseert 78% van de pt-en dit trainingsprogramma voor medepatiënten.



RC  
rupturen



Instabiliteit



Omartrose

- Relatie reumatologie
- Evidentie; inhoud conservatieve behandeling

## Conservatieve therapie

- Medicatie
- Injectie
- Manuele therapie/ mobilisatie
- Oefentherapie
- ESWT
- Applicaties; ultra geluid, elektro-therapie, laser.....



## Conservatieve therapie

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- Oefentherapie
- ESWT
- Applicaties; ultra geluid, elektro-therapie, laser.....



[Aust J Physiother.](#) 2005;51(2):71-85.

## **Effectiveness of exercise therapy: a best-evidence summary of systematic reviews.**

[Smidt N](#), [de Vet HC](#), [Bouter LM](#), [Dekker J](#), [Arendzen JH](#), [de Bie RA](#), [Bierma-Zeinstra SM](#), [Helders PJ](#), [Keus SH](#), [Kwakkel G](#), [Lenssen T](#), [Oostendorp RA](#), [Ostelo RW](#), [Reijman M](#), [Terwee CB](#), [Theunissen C](#), [Thomas S](#), [van Baar ME](#), [van 't Hul A](#), [van Peppen RP](#), [Verhagen A](#), [van der Windt DA](#);

[Exercise Therapy Group](#).

- 45 reviews goede kwaliteit
- Musculoskeletale; neurogene; respiratoire en cardiovasculaire aandoeningen

*Conclusie: (tav schouder)*

*There is insufficient evidence to support or refute the effectiveness of ET for patients with neck pain, shoulder pain RSI, RA....*

[BMC Med.](#) 2012 Dec 19;10:167.

## **Exercise therapy for bone and muscle health: an overview of systematic reviews.**

[Hagen KB](#), [Dagfinrud H](#), [Moe RH](#), [Østerås N](#), [Kjeken I](#), [Grotle M](#), [Smedslund G](#).

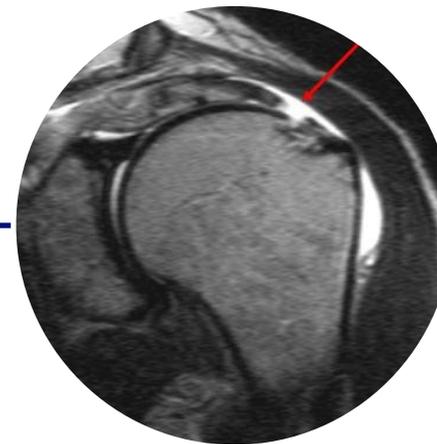
- 9 reviews; 224 trials; 24.059 pt-en
- 4 musculosk. condities
  - Fibromyalgie; lage rug pijn; nekpijn; schouderpijn
- 4 specifieke musculosk. ziekten
  - Osteoartritis; reum.artritis; spond. ankylopoetica; osteoporose

*Conclusie:*

*Algemeen: Empirical evidence that ET has beneficial clinical effects for most MSC.*

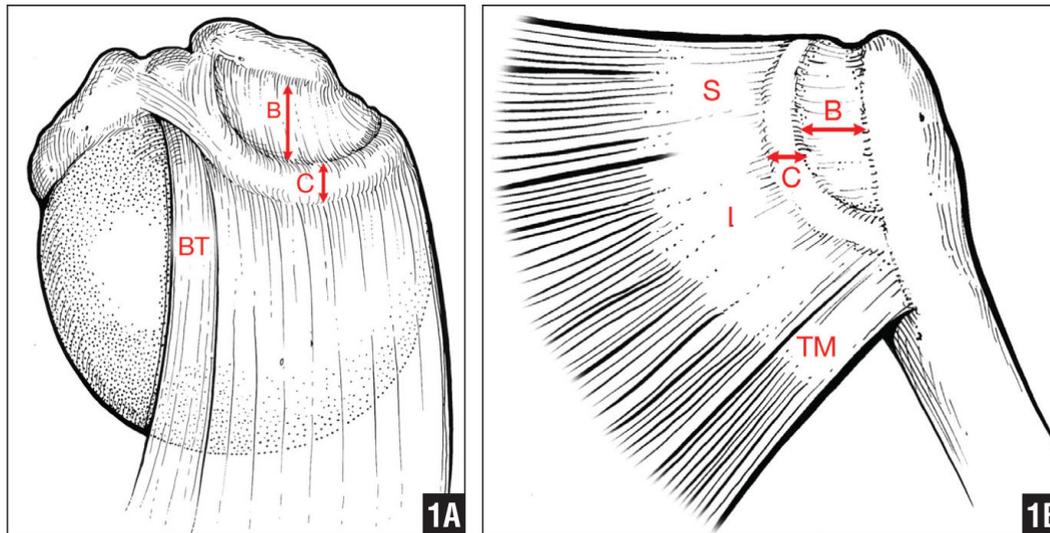
*Schouderpijn: + effect for ET*

*Schouderfunctie: minimal + effect*



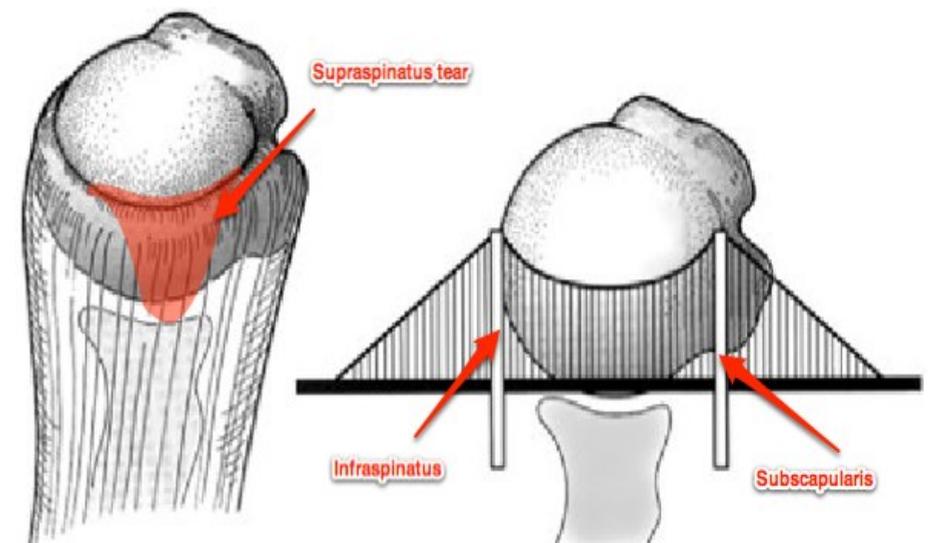
RC  
rupturen

- Aanwezigheid  $\neq$  symptomen
- Grootte  $\neq$  mate van functieverlies



Suspension bridge  
(Burkhart, 2005)

Rotator cuff cable and crescent



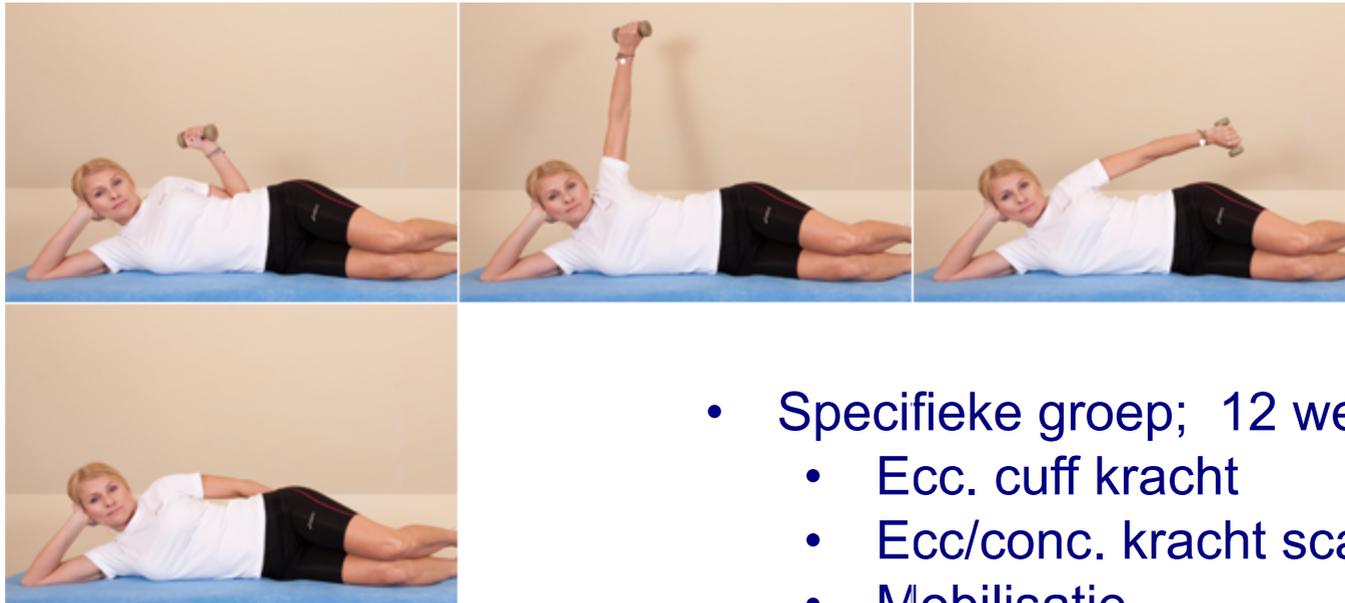
## Tendinopathie / partiële rupturen

[BMJ](#). 2012 Feb 20;344:e787

**Effect of **specific exercise strategy** on need for surgery in patients with subacromial impingement syndrome: randomised controlled study.**

[Holmgren T](#), [Björnsson Hallgren H](#), [Öberg B](#), [Adolfsson L](#), [Johansson K](#).

N=102



- Specifieke groep; 12 weken training
  - Ecc. cuff kracht
  - Ecc/conc. kracht scapula stabilisatoren
  - Mobilisatie
- Controle groep algemene OT

Conclusie:

Aanzienlijke verbetering  
pijn/functie/kwaliteit van leven

- Exclusie: OA; RA

## Full thickness rupturen

Br J Sports Med 2007;41:200–210.

### **Exercise therapy for the conservative management of full thickness tears of the rotator cuff: a systematic review**

Roberta Ainsworth, Jeremy S Lewis



- 0 RCT' s, 10 (111) observational studies.
- 8 case-series; 2 single case studies
- Slechte methodologische kwaliteit

### *Conclusion:*

*...appropriate to recommend exercise therapy.... however there is no definitive guidance as to when to start the programme, **what to include** in the programme and **when to refer** for a surgical opinion*

Muscles Ligaments Tendons J. 2011 Oct 30;1(1):12-9. Print 2011 Jan.

## Conservative management of rotator cuff tears: literature review and proposal for a Prognostic Prediction Score.

[Merolla G](#), [Paladini P](#), [Saporito M](#), [Porcellini G](#).

Clinical and radiographic prognostic features of the rotator cuff prediction score.

Prognostic features		points	Prognostic features		points
Age			Drop sign		
> 60 years	0		Yes	0	
< 60 years	1		No	1	
Working activity			LHB		
light	0		Normal	0	
heavy	1		Rupture	0	
Working compensation			Instability	1	
Yes	0	AH interval			
No	1	> 7 mm	1		
Overhead sport			< 7 mm	0	
Yes	1	Scapular dyskinesia			
No	0	Yes	0		
Shoulder trauma			No	1	
< 6 months	1	RC muscle atrophy			
> 6 months	0	Grade I	3		
Previous rehabilitation			Grade II	2	
Yes	1	Grade III	1		
No	0	Grade IV	0		
RC tear			RC fatty infiltration		
complete	1	Grade 0 or I	2		
partial	0	Grade II	1		
Subscapularis tear			Grade III	0	
Yes	1	Passive stiffness			
No	0	None or mild	2		
Bilateral tear			Moderate	1	
Yes	0	Severe	0		
No	1	Active ROM			
		> 90%	0		
		< 90%	1		

Max 21 punten:  
<13 conservatief  
>13 operatief

- Exclusie: OA; RA

## Full thickness rupturen

[Musculoskeletal Care](#). 2006 Sep;4(3):140-51.

**Physiotherapy rehabilitation in patients with massive, irreparable rotator cuff tears.**

[Ainsworth R.](#)

N=10

“Torbay protocol”: Deltoid Rehabilitation Programme

10 oefeningen      - anterior deltoid  
                                 - teres minor

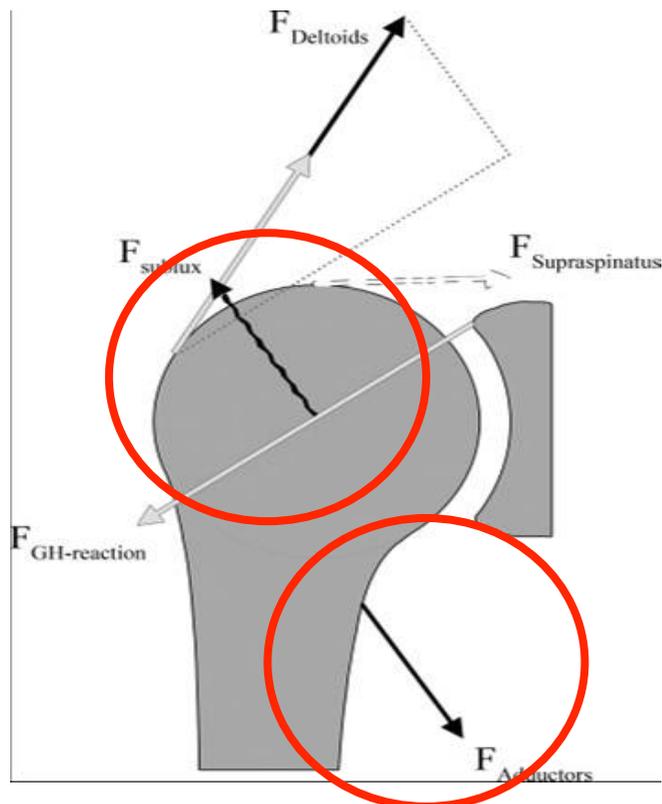


## Full thickness rupturen

[Clin Biomech \(Bristol, Avon\)](#). 2013 Oct 26.

**Cranial humerus translation, deltoid activation, adductor co-activation and rotator cuff disease.- Different patterns in rotator cuff tears, subacromial impingement and controls.**

[de Witte PB](#), [Henseler JF](#), [van Zwet EW](#), [Nagels J](#), [Nelissen RG](#), [de Groot JH](#).



Training van m.teres major  
en laticsimus dorsi

## Full thickness rupturen

J Shoulder Elbow Surg. 2012 Apr;21(4):491-4

### **Long-term follow-up of cases of rotator cuff tear treated conservatively.**

[Kijima H](#), [Minagawa H](#), [Nishi T](#), [Kikuchi K](#), [Shimada Y](#).

- 103 schouders FT tears
- Conservatief behandeld (inj. med. en revalidatie)
- 13 jaar follow up
- 88% geen/weinig pijn; 72% weinig ADL problemen
- Jongere pt scoort slechter



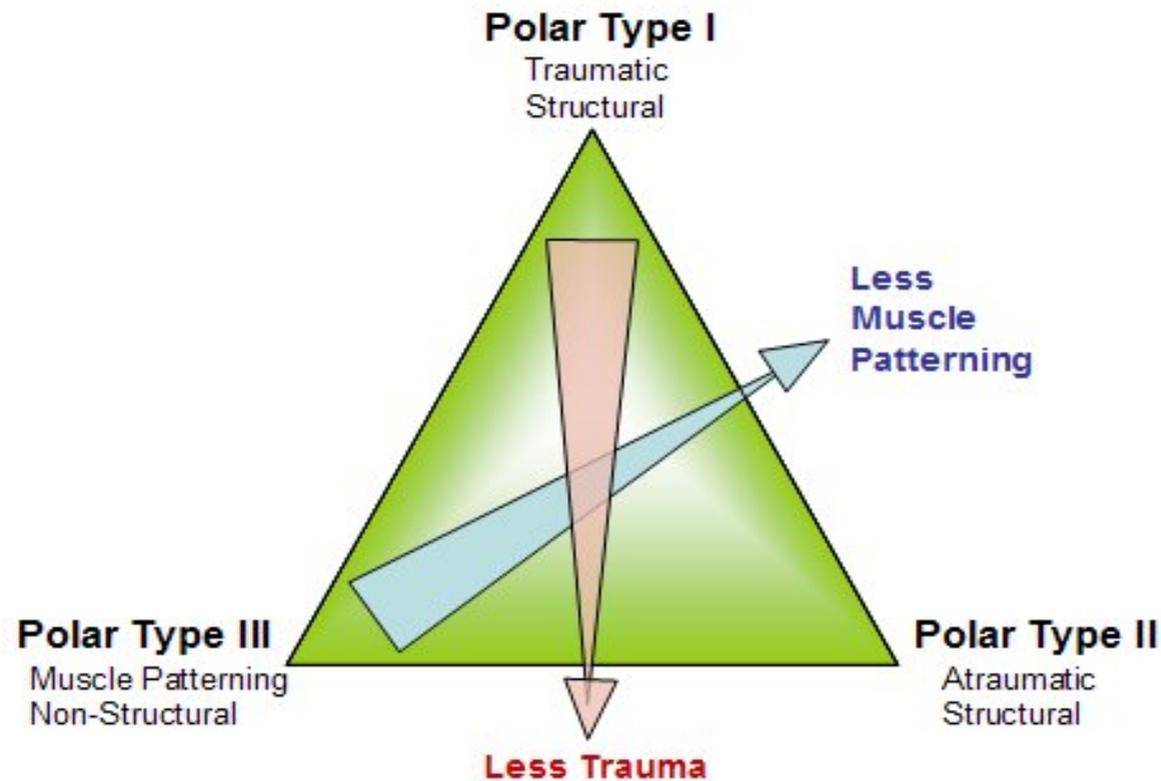


Instabiliteit

- Gegeneraliseerde gewrichtsklachten
- Chronisch patroon
- Geen structurele afwijkingen
- Chirurgisch geen indicatie, of niet geslaagd
- “Shoppers”
- Trainen sportschool lukt niet
- Probleem wordt niet onderkent
- Psychosociaal, maatschappelijke problematiek

Beighton score >6;

Benigne Hypermobility Joint Syndrom (BHJS)



- Polar Type I = Surgery (+ rehab) Management
- Polar Type III = Specialist Shoulder Physiotherapy
- Polar Type II = combination of above (needs skillful and careful management)

[Int J Shoulder Surg.](#) 2012 Oct;6(4):101-7.

## **Muscle activation patterns in patients with recurrent shoulder instability.**

[Jaggi A](#), [Noorani A](#), [Malone A](#), [Cowan J](#), [Lambert S](#), [Bayley I](#).

### Therapie inhoud:

- Core stability
- Scapula Stability
- Kinetic Chain strength
- Muscle patterning
- Proprioception
- Functional Rehab.
- Combined Rehab exercises incorporate  
Core stability, Proprioception, Scapula, ROM, Strength



[Int J Shoulder Surg.](#) 2012 Oct;6(4):101-7.

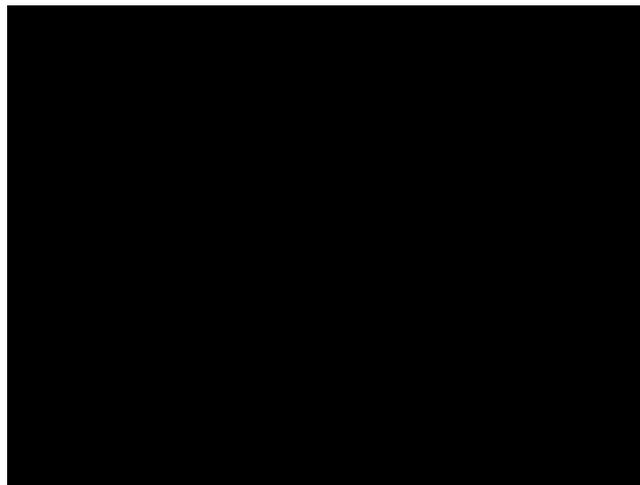
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## Scapula dyskinesie



[Br J Sports Med.](#) 2013 Sep;47(14):877-85.

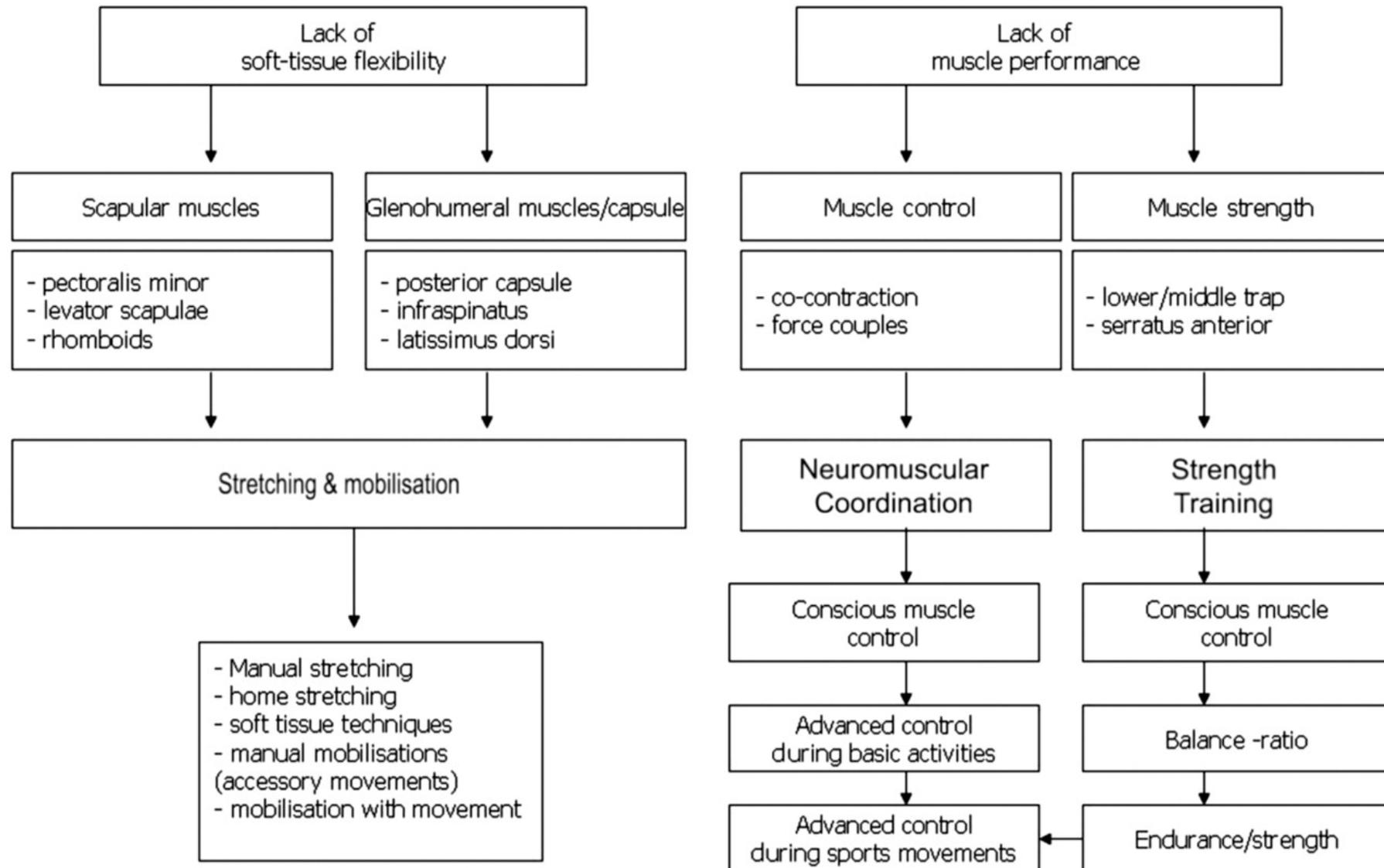
## **Clinical implications of scapular dyskinesis in shoulder injury: the 2013 consensus statement from the 'Scapular Summit'.**

[Kibler WB](#), [Ludewig PM](#), [McClure PW](#), [Michener LA](#), [Bak K](#), [Sciascia AD](#).

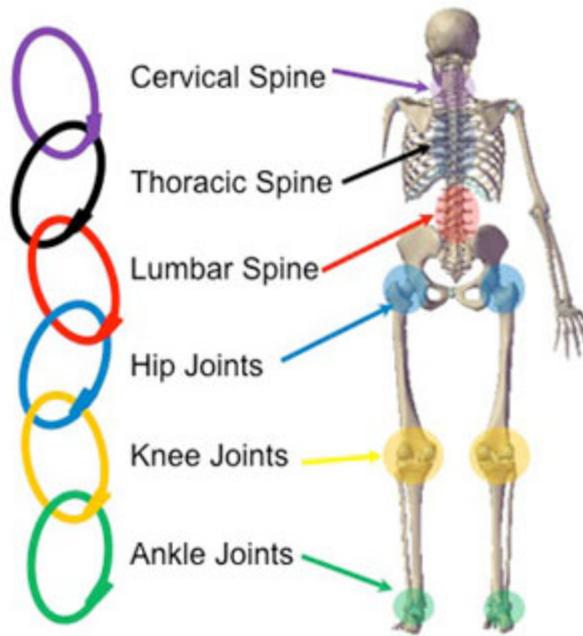
### Conclusies:

1. SD is present in a high percentage of most shoulder injuries;
2. the exact role of the SD in creating or exacerbating shoulder dysfunction is not clearly defined;
3. SIS are particularly affected by scapular dyskinesis;
4. SD is most aptly viewed as a potential impairment to shoulder function;
5. treatment strategies can be more effectively implemented by evaluation of the dyskinesis;
6. a reliable observational clinical evaluation method for dyskinesis is available
7. rehabilitation programmes to restore scapular position and motion can be effective within a more comprehensive shoulder rehabilitation programme.

# Scapular Rehabilitation Algorithm



## Kinetic Chain



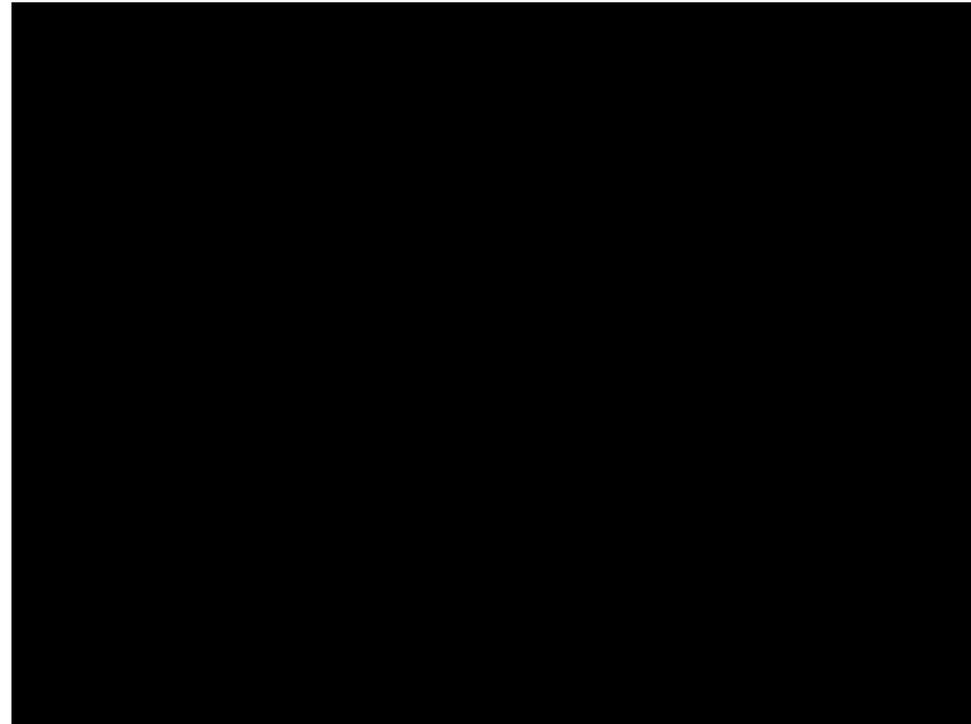
[PM R.](#) 2011 Aug;3(8):739-45.

## **Kinetic chains: a review of the concept and its clinical applications.**

[Karandikar N](#), [Vargas OO](#).

### **Source**

Department of PM&R, University of Kentucky, 2050 Versailles Blvd, Lexington, KY 40504, USA. [nkara2@email.uky.edu](mailto:nkara2@email.uky.edu)





Omarthrose

[Arthritis Care Res \(Hoboken\)](#). 2013 Aug 27.

## **Is the severity of knee osteoarthritis on MRI associated with outcome of exercise therapy?**

[Knoop J](#), [Dekker J](#), [van der Leeden M](#), [van der Esch M](#), [Klein P](#), [Hunter D](#), [Roorda L](#), [Steultjens M](#), [Lems W](#).

- 95 pt-en met knie OA
- 12 weken oefenprogramma

Concl: alle gradaties knie OA hebben baat bij oefentherapie, hoewel bij ver gevorderde OA minder effect wordt gezien

[J Shoulder Elbow Surg.](#) 2012 Apr;21(4):561-6.

## **Management of glenohumeral osteoarthritis in the young patient: ask the experts.**

[Liem D](#), [Kasten P](#).

8 schouderchirurgen (publ. gem +/-50) ; SECEC;  
6 gespecialiseerde zkh in USA.

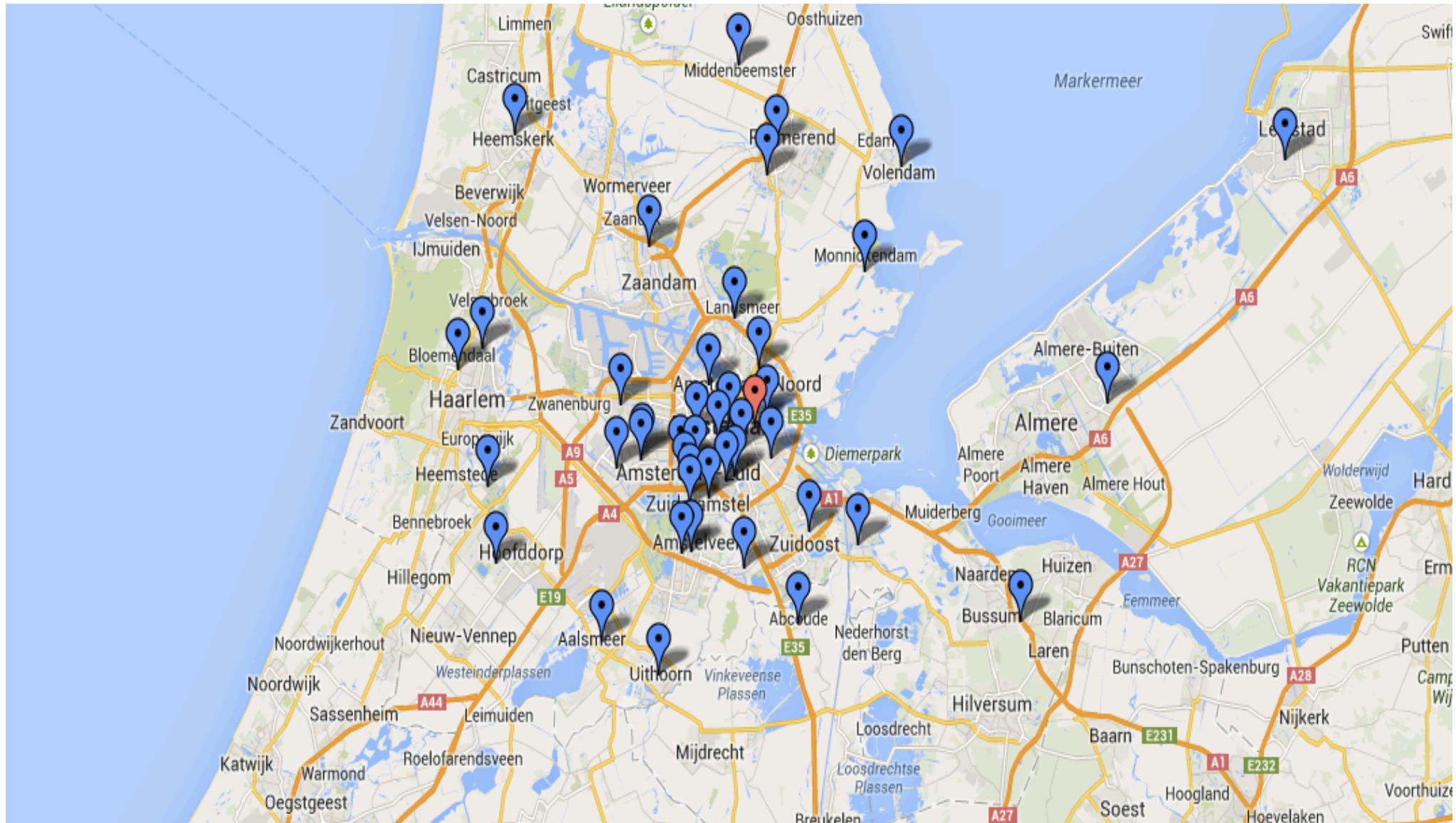
Operaties/seminars

Case: 42 jr man; OA schouder, mgl post traumatisch;  
ft gehad met tijdelijk goed effect. Nu meer pijn, minder ROM

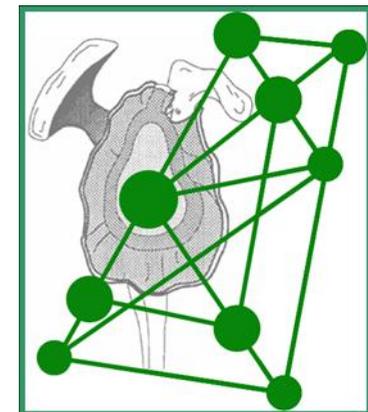
Vragen:

- beeldvorming
- therapie
- operatieve therapie

[www.schoudernetwerk.nl](http://www.schoudernetwerk.nl)



[www.schoudernetwerk.nl](http://www.schoudernetwerk.nl)



- Er is, afhankelijk van de pathologie, evidentie over het effect van conservatieve therapie bij schouderklachten
- Onderzoek noodzakelijk voor effectiviteit, gestandaardiseerde therapievormen etc...
- Advies: Gespecialiseerde (netwerk) fysiotherapeut



'I TRIED TO SHRUG OFF MY FOOT INJURY  
AND DISLOCATED MY SHOULDERS!'