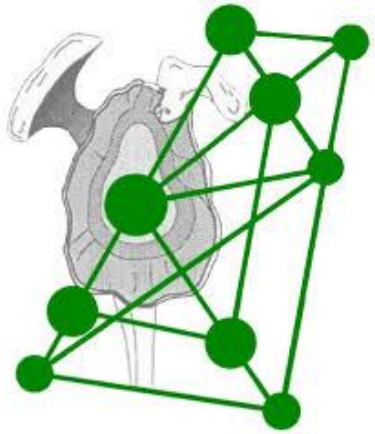
Frozen shoulder: SNN-guideline

Filip Struyf – Ruud Schuitemaker – Donald van der Burg - Karin Hekman – Eric Vermeulen



SNN Guidelines frozen shoulder

- **AIMS**
- **DEFINITION**
- **ASSESSMENT**
  - **Screening**
  - **Tissue irritability**
- **REHABILITATION**

CLINICAL PRACTICE GUIDELINES

MARTIN J. KELLEY, DPT • MICHAEL A. SHAFFER, MSPT • JOHN E. KUHN, MD • LORI A. MICHENER, PT, PhD
AMEE L. SEITZ, PT, PhD • TIMOTHY L. UHL, PT, PhD • JOSEPH J. GODGES, DPT, MA • PHILIP W. MCCLURE, PT, PhD

Shoulder Pain and Mobility Deficits: Adhesive Capsulitis

Clinical Practice Guidelines Linked to the International Classification of Functioning, Disability, and Health From the Orthopaedic Section of the American Physical Therapy Association

Articles included up to September 2011

+ teamwork!

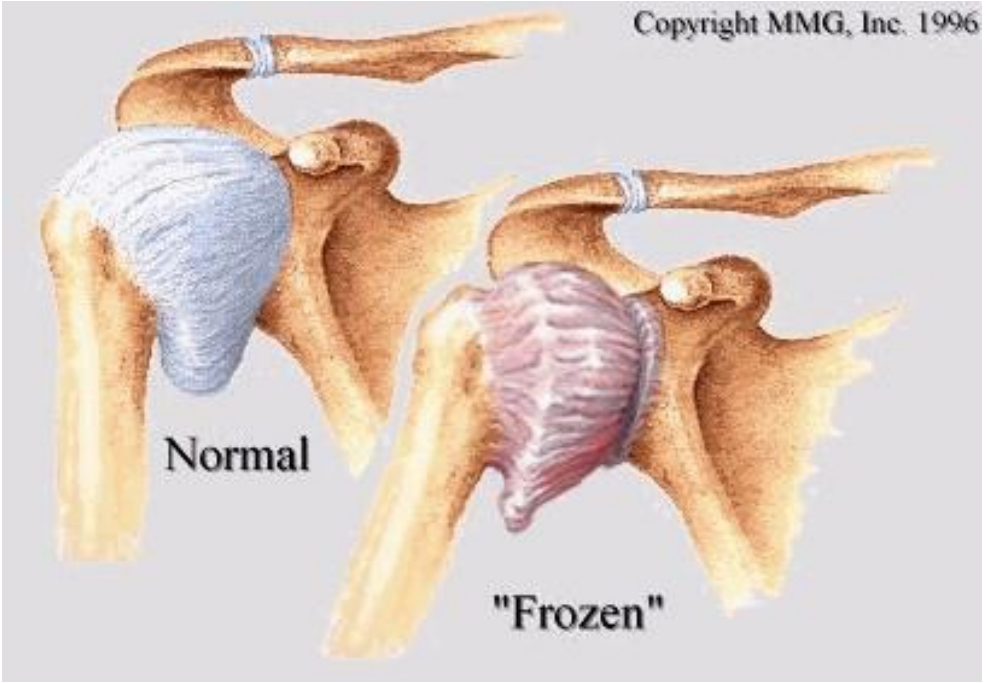
SNN Guidelines frozen shoulder

- **AIMS**
- **DEFINITION**
- **ASSESSMENT**
  - **Screening**
  - **Tissue irritability**
- **REHABILITATION**

Frozen shoulder?

Inflamed capsule

Adhesions & scar development



Frozen shoulder

(self limiting disease)

Loss of GH ROM > 25% in 2 movement planes + >50% GH external rotation compared to contralateral side.

Epidemiology

- 2% to 5,3% in the general population (prevalence of primary FS)
- 70% of the FS patients are women
- > 40 years of age
- Prevalence of up to 20% (DM type II) or 34% (type I)
- having FS on one side places an individual at risk (up to 17%) for opposite arm involvement within 5yrs of first episode

Causes

Primary frozen shoulder

= ideopathic form

Secondary frozen shoulder:

- Intrinsic shoulder pathology: immobilization, rotator cuff pathologies, biceps tendinitis, calcific tendinitis, bursitis, AC joint arthritis…
- Extrinsic pathology: recent surgery, trauma, post-myocard infarct, Dupuytrens' disease, cardiopulmonary diseases, cervical spine pathology, stroke, Parkinson's disease, mammatumor, pancoasttumor, humerus fractures, clavicle fractures,…
- Systemic pathology: diabetes mellitus, thyroid dysfunction, hypoadrenalism,..

Phases

- Freezing phase (4 to 36 weeks)

  Capsulitis!

Pain+++ Movement restrictions ↗↗

- Frozen phase (4-9 months)

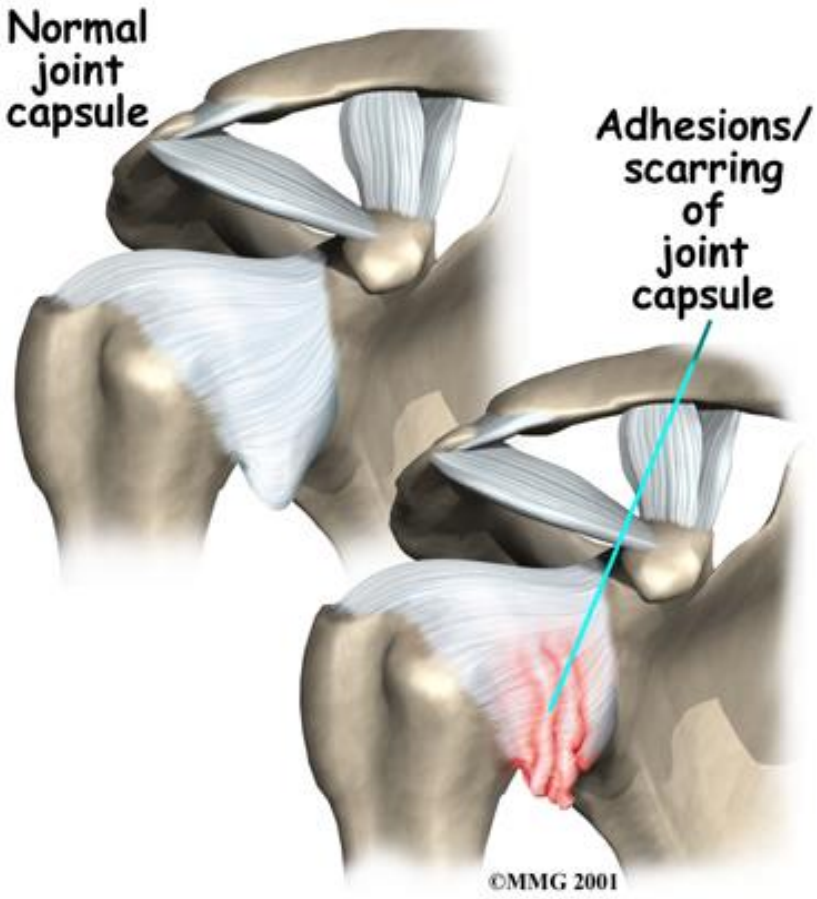
  Movement restrictions !

Pain ↘ Movement restrictions +++

- Thawing phase (1 to 3 years)

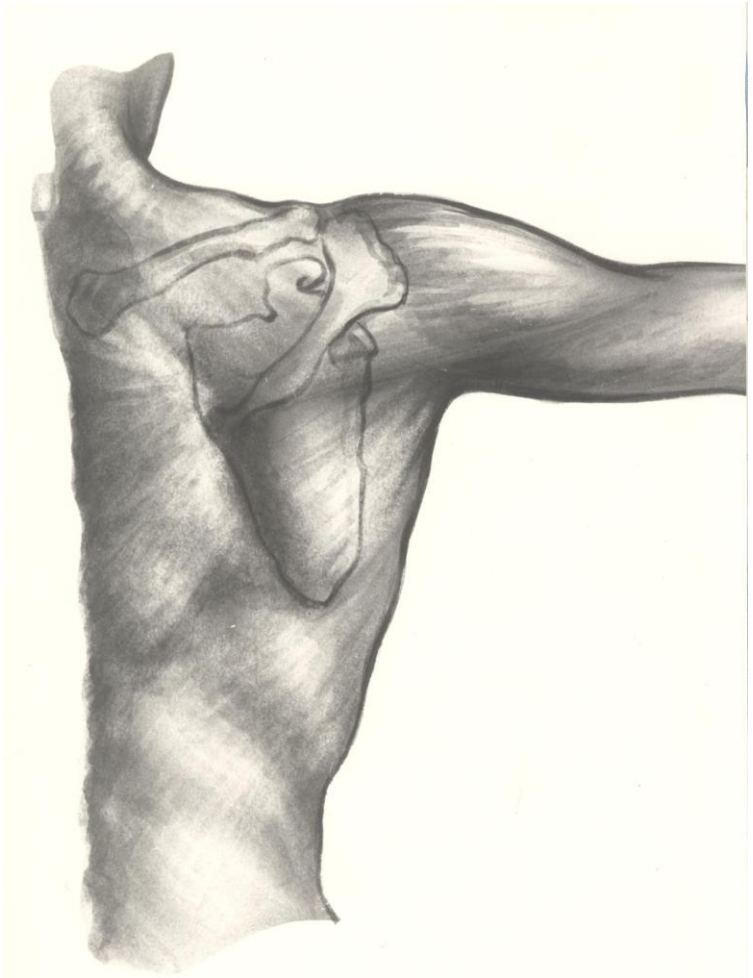
Movement restrictions & recovery

Pain ↘↘ Movement restrictions ↘↘



SNN Guidelines frozen shoulder

- AIMS
- DEFINITION
- **ASSESSMENT**
  - Screening
  - Tissue irritability
- REHABILITATION



SCREENING

TUMORS
INFECTIONS
FRACTURES
NEUROLOGIC
VISCERAL

PSYCHOSOCIAL FACTORS
FABQ
PCI
…

QUESTIONAIRES?
American Shoulder and Elbow Surgeons shoulder scale (ASES)
Disabilities of the Arm, Shoulder and Hand (DASH)
Shoulder Pain and Disability Index (SPADI

Tissue irritability: High

- Reports high levels of pain (NPRS ≥ 7)
- Consistent night or resting pain
- Pain occurs before end ranges of active or passive movements
- Active ROM is significantly less than passive ROM due to pain

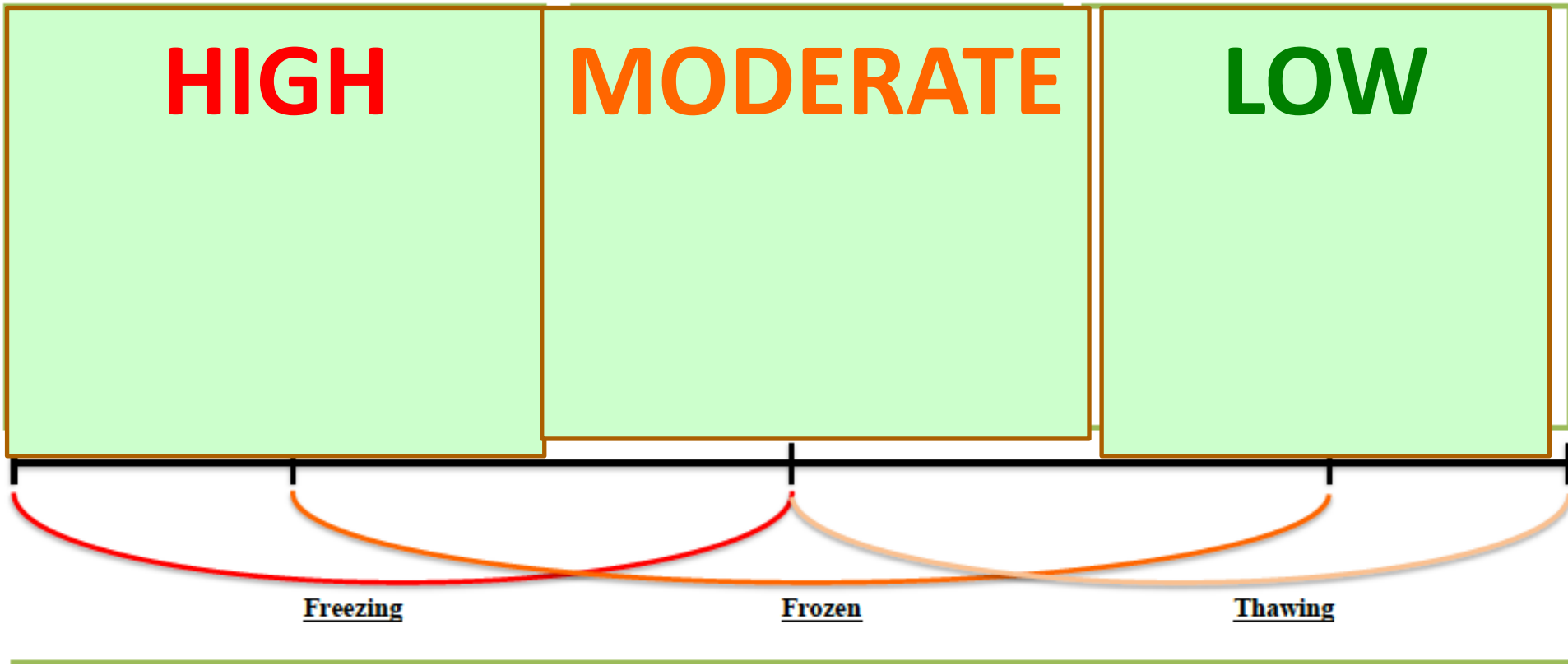
Tissue irritability: Moderate

- Reports moderate levels of pain (NPRS 4-6)
- Intermittent night or resting pain
- Pain occurs at end ranges of active or passive movements
- Active ROM is almost similar to passive ROM

Tissue irritability: Low

- Reports minimal levels of pain (NPRS ≤ 3)
- No night or resting pain
- Pain only occurs with overpressure into end ranges of passive movements
- Active ROM = passive ROM

Tissue irritability & FS phases



SNN Guidelines frozen shoulder

- **AIMS**
- **DEFINITION**
- **ASSESSMENT**
  - **Screening**
  - **Tissue irritability**
- **REHABILITATION**

Physical therapy & FS

- The majority of studies are in favor of the role of physical therapy for improving pain, functionality, and range of motion.

Rehab focussed on irritability classification - HIGH

Management

- No pain increase during and/or after treatment
- Patient education on disease prognosis
- Self-care, education on positions of comfort and activity modifcations to limit tissue inflammation and pain

Exercises

- If possible guided-active (pain reduction) and active exercises without pain increase of total shoulder girdle, relaxation exercises

Manual therapy

*Low-intensity (guided-) joint mobilization procedures in the pain-free ranges and glenohumeral positions

*thoracic and cervical approach for pain reducing effect

Extra modalities for pain modulation

* Electrical applications, cold or heat applications

Rehab focussed on irritability classification - MODERATE

Management

- Maximum of 4 hours post treatment pain allowed
- Patient education on disease prognosis
- Self-care, education on increase of activity levels without increasing tissue irritability

Exercises

- Scapulothoracic stability exercises
- Active exercises of low-intensity stretches towards end-range in all directions

* 3-6 times/day

Manual therapy

*Low-intensity glenohumeral joint mobilization through scapular application

*low-intensity angular and translational glenohumeral mobilisations with increasing duration towards end-range

*thoracic and cervical approach for pain reducing effect

Rehab focussed on irritability classification - LOW

Management

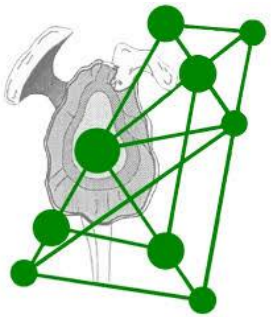
- Decreasing pain within 24h post-treatment
- Coaching the patient towards increasing activity levels and recreational activities without increase of tissue irritability

Exercises

- Scapulothoracic stability exercises in a functional context
- Active exercises of the total shoulder girdle towards the end-range of all directions – increasing intensity
- 5-10 times/day (every hour)

Manual therapy

- long-lasting end-range angular and translational glenohumeral mobilisations
- minimal Total End Range Time (TERT) of 2 min / mobilisation

Frozen shoulder:  - guideline

Ruud Schuitemaker

Donald van der Burg

Karin Hekman

Eric Vermeulen

@FilipStruyf