

# 19th congress of the European society for surgery of the shoulder and elbow

ROME, ITALY, SEPTEMBER 21-24, 2005

”Interest of the physiotherapy applied to the functional treatment of full thickness tear of the rotator cuff within a group of 41 patients”

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The aim of this study is to establish the capacity of a program of physiotherapy involving :

- **techniques of specific mobilization of the glenohumeral joint**
  - **And a strengthening of the lateral rotator muscles,**
- to improve the **functional state of the patients.**

# Materials

- 41 patients (22 men)
- Mean age 68 (SD 10)
- Full thickness tear (one tendon or more)
- No previous surgery
- Pretreatment Constant score : 47 +/-18 (non-adjusted).

# Method

- Rehabilitation performed by physical therapists specialized in rehabilitation by C.G.E. method

## **1– Specific manual therapy to increase width of subacromial space :**

Correction of antero-superior translation

Correction of internal spin (add an anterior gliding during an internal rotation)

## **2– Strengthening of lateral rotator :**

By electrical stimulation

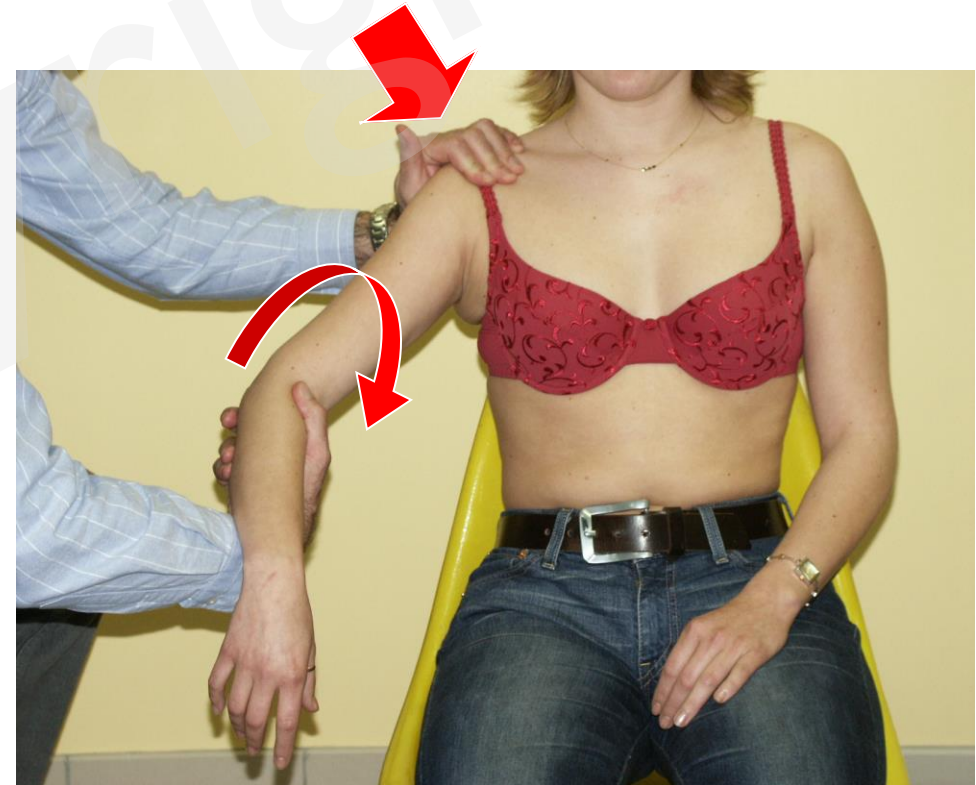
Against rubber band (when the pain disappears)

# Correction of internal spin

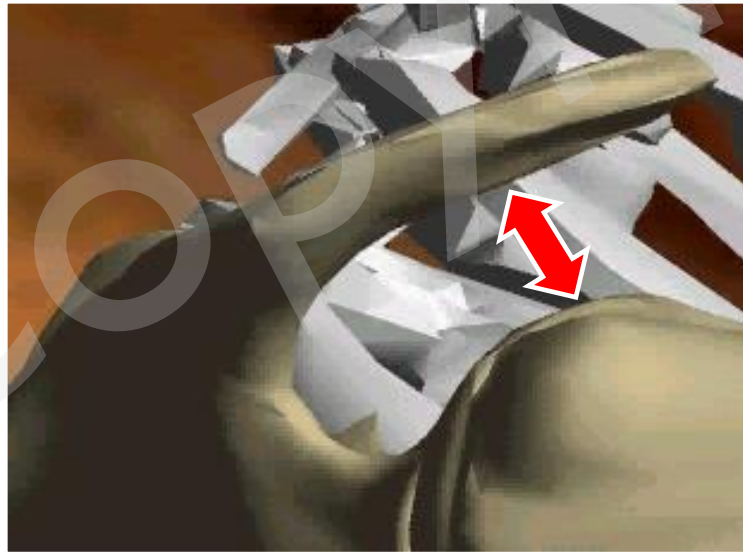
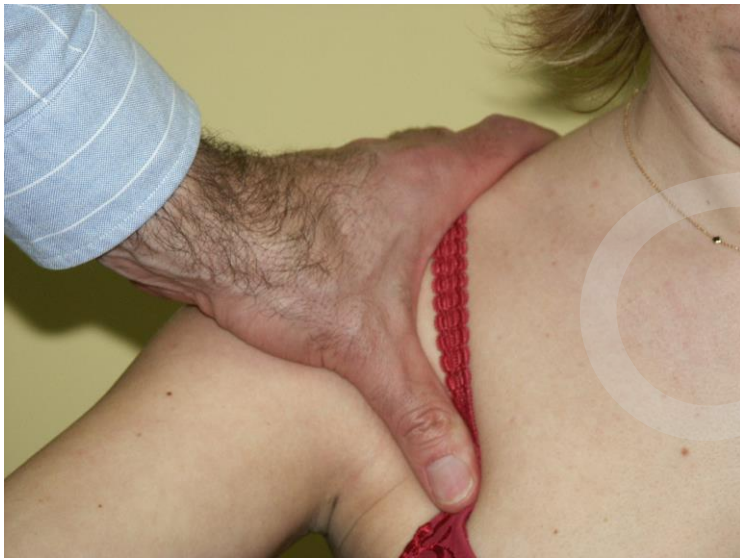
FIRST STEP



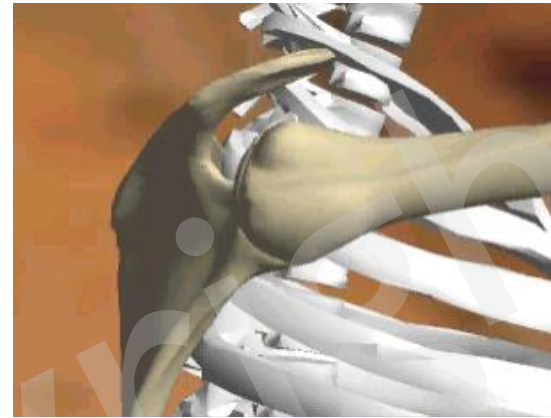
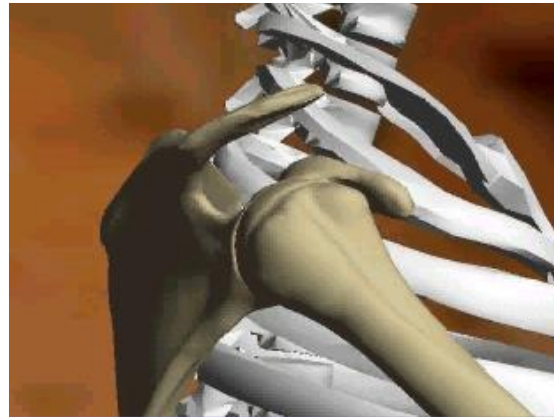
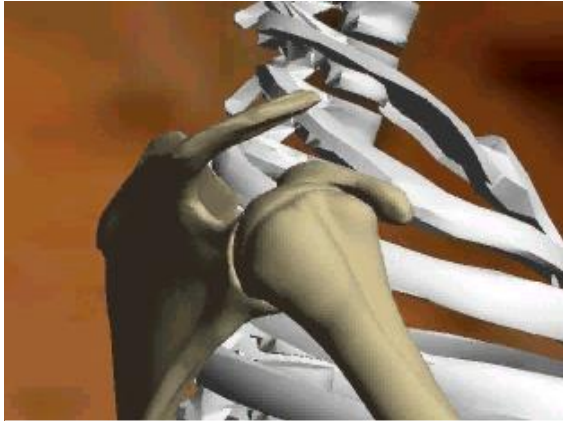
SECOND STEP



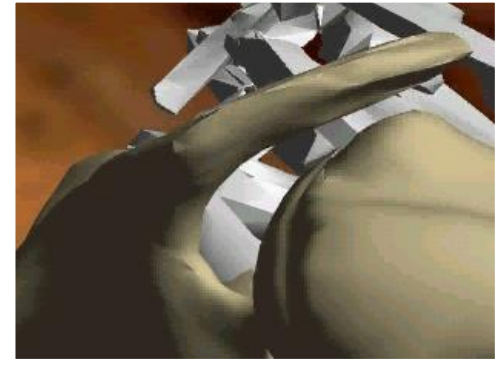
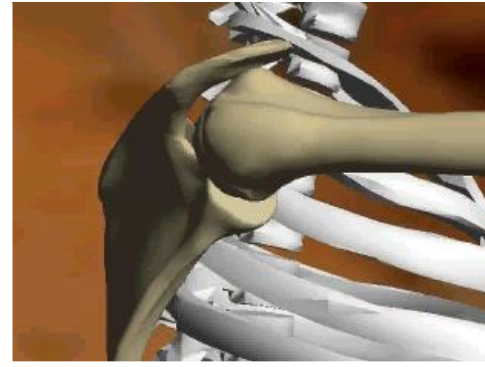
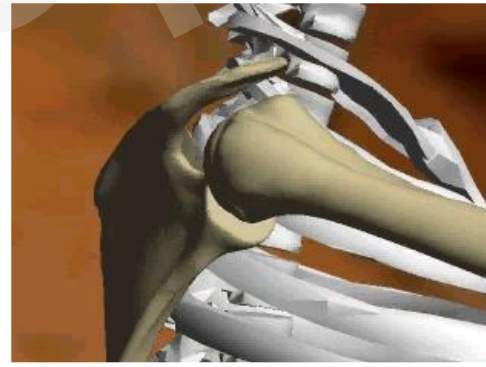
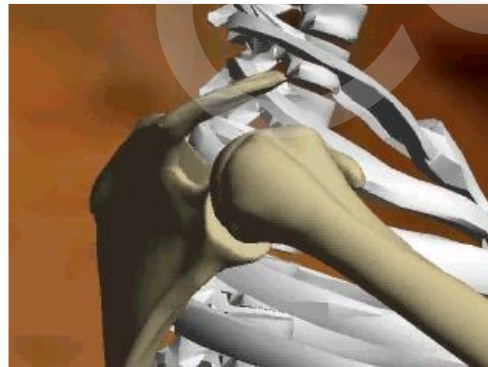
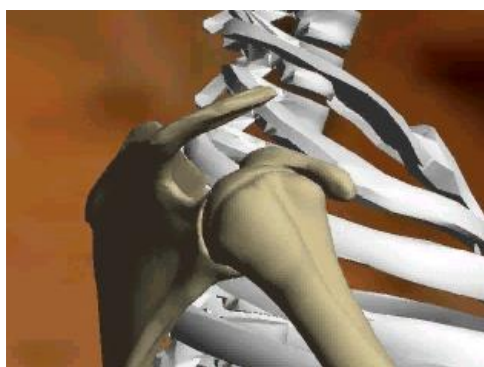
# Correction of antero-superior translation



Flexion: **normal** motion (the height of subacromial space is constant)



Flexion: **abnormal** motion (the height of subacromial space decrease)



# Results

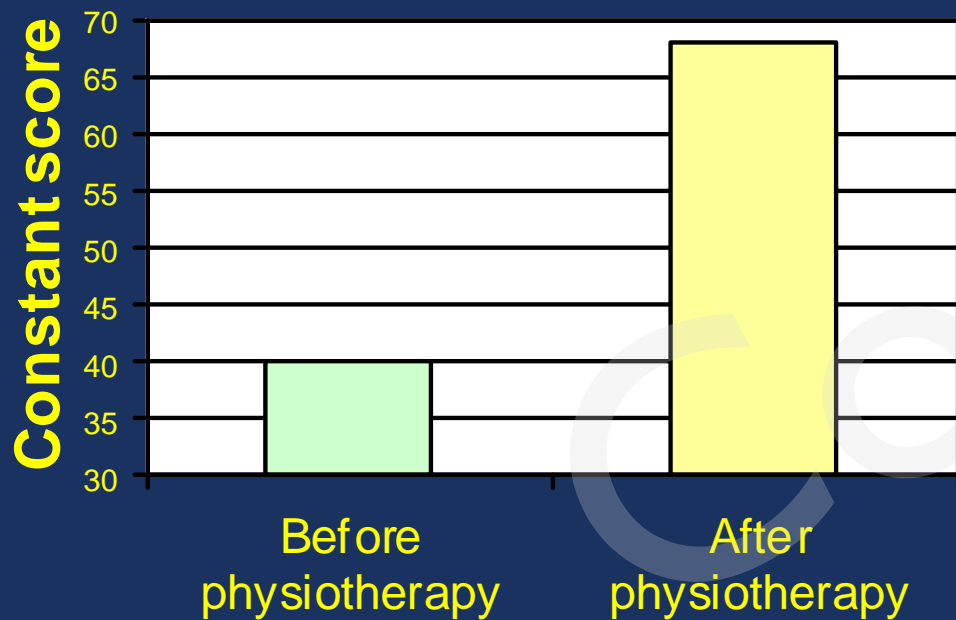
- 5 patients (65 years old) were operated on during the treatment because of persistent pain, despite an improvement of the Constant from 43 to 64. After surgery, the Constant went up to 71.
- For the 36 patients who went through all the physiotherapy treatment, the score went from 40 to 68 (SD 14; gain 28 points).

## Follow-up:

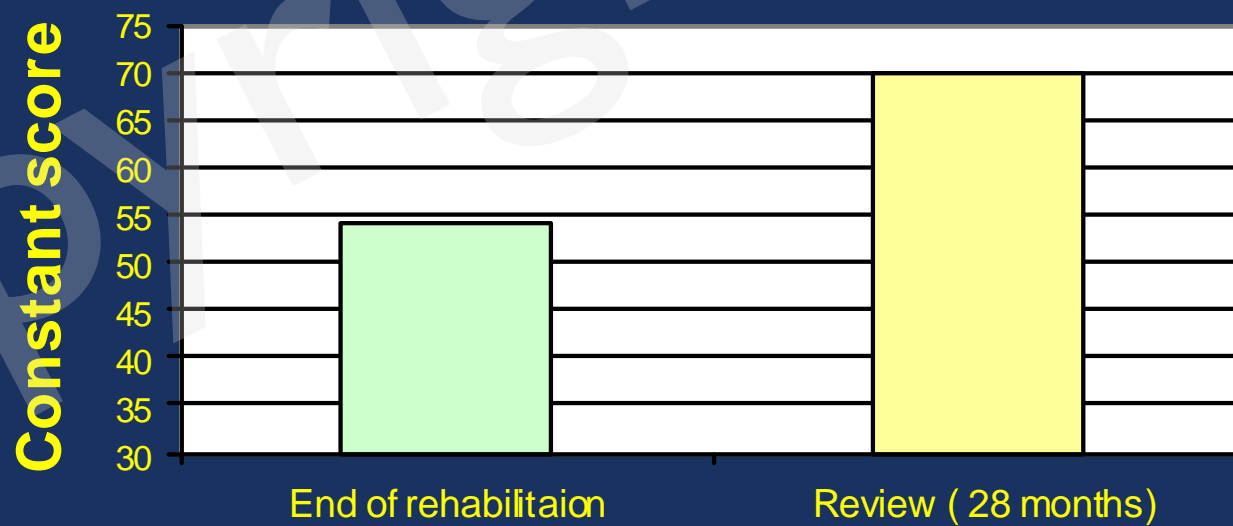
- 15 patients could be seen at middle term (28 months, SD 20). Their score of Constant went from 54 at the end of their rehabilitation to 70.



### Improvement at the end of rehabilitation (n=36)



### Improvement after the end of rehabilitation (n=15)





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This study shows that a protocol of specific rehabilitation enables one to obtain a **satisfactory functional result.**

- The youngest patients (12 %) who had the lowest progression of constant (21 points) were directed to **surgical treatment.**
- The patients seen at middle term **improved spontaneously their score by 16 points.**

In our view, this middle term progression seems to be linked to the protocol of rehabilitation whose main goal is to correct the biomechanical dysfunctions of the shoulder by suppressing kinematics disorders and to balance the muscular dynamics.

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Thank you for your attention.

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