

## RECOVERY OF THE ANKLE JOINT TRAUMA IN CHILDREN BY MEANS KINETIC

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**Keywords:** Physical therapy, recovery, tibio-tarsal joint.

**Abstract:** The materials help to emphasize the role of physical therapy in the tibio-tarsal joint recovery both during and after immobilization removed. The purpose of recovery is to avoid or reduce any infirmity in reducing disability and incapacity for work and, especially, the creation of a new state of equilibrium, based on the physical and functional outstanding through which the patient must be taught and trained to adapt active life.

### **Introduction**

In recent years, physical therapy has developed into a large-scale structured discipline. Through the efforts of specialists in medicine, biomechanics, physiology, nutrition, pharmacology, and lines were programs to treat and prevent accidents, pains and diseases. Analysis and continuous modification of these programs are designed to achieve better health standards.

Due to the fact that the child is found more cases of ankle level fractures caused by falls or blows trauma, orthopedic or surgical cases solved, resulting in joint stiffness after immobilization of the tibio-tarsus joint.

I thought to approach this topical issue to highlight the role of physical therapy in the tibio-tarsus joint recovery both during and after immobilization removed.

### **The assumptions work**

This work is based on the following assumptions:

- Therapist treatment can prevent complications;

- Treatment applied during immobilization therapist remaining segments can reduce recovery time;
- Associated means favorable for the final recovery of physical therapy;
- Applied as gypsum isometric contractions during immobilization may reduce muscle atrophy;
- Precocity recovery program favors shortening the recovery period.

We used the method of documenting theoretical research methods, investigation, observation, measurement, experiment, recording, processing and graphical representations of data.

Experimental method that underlies this work concerns the application of a specific physiotherapy rehabilitation program by meeting the requirements stated in hypothesis, ie achieving quantifiable results in a given time and subject to certain milestones.

Subjects on which this study was conducted su was selected based on clinical manifestations, laboratory and topographic criteria.

The experimental group consists of:

S.A - 10 years, female

N.T. - 13 years, female

O.I. - 14 years, female

## RESULTS

### Tables articular balance assessment

Name: S A.

Date of birth: 15.01.1998, 10 years, Suceava

Diagnosis: fractured left tibio-tarsal

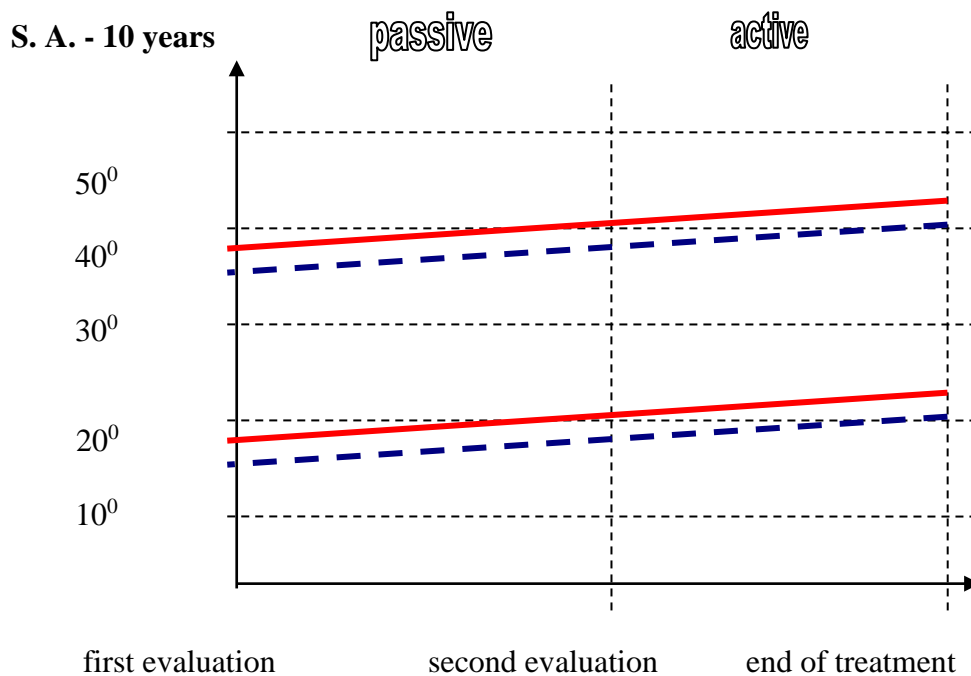
Date of admission: 4.12.2007

Date of commencement of physical therapy: 6.12.2007

### Range of motion

| <i>Evaluation of tibial tarsus joint</i> |                |              |                |                                  |                |              |                |   |                |              |                |
|--|----------------|--------------|----------------|----------------------------------|----------------|--------------|----------------|---|----------------|--------------|----------------|
| Date of assessment<br>6.12.2007          |                |              |                | Date of assessment<br>13.12.2007 |                |              |                | Patient assessment at end<br>of treatment / discharge<br>21.12.2007 |                |              |                |
| Passive                                  |                | Active       |                | Passive                          |                | Active       |                | Passive   |                | Active       |                |
| Fle-<br>xion                             | Exten-<br>sion | Fle-<br>xion | Exten-<br>sion | Fle-<br>xion                     | Exten-<br>sion | Fle-<br>xion | Exten-<br>sion | Fle-<br>xion  | Exten-<br>sion | Fle-<br>xion | Exten-<br>sion |
| 15°                                      | 35°            | 14°          | 33°            | 18°                              | 37°            | 17°          | 35°            | 22°   | 40°            | 20°          | 38°            |

**ASSESSMENT GRAPH OF MOTION**



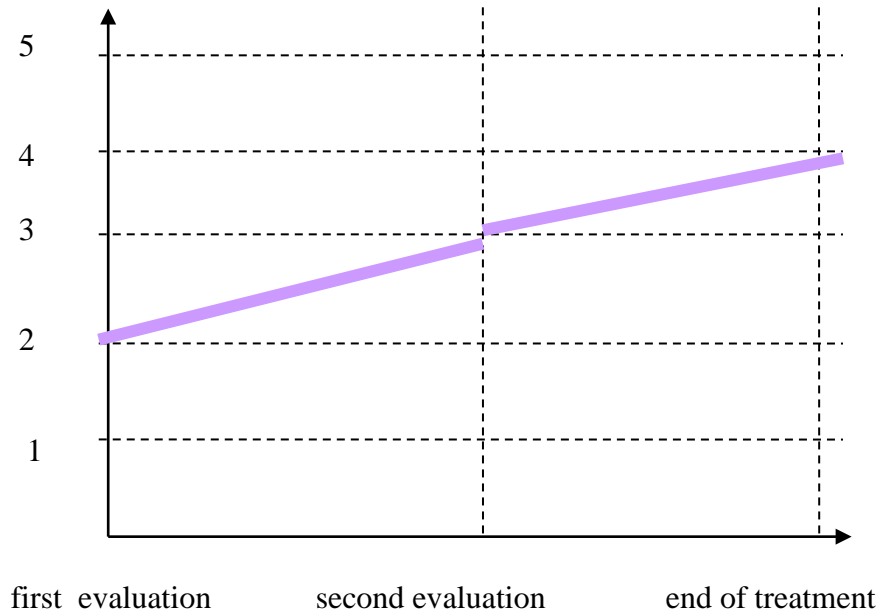
**Evaluation of the muscular balance (muscle testing)**

**S. A. – 10 years**

| Normal values | Date: 6.12.2007 | Date : 13.12.2007 | Date : 21.12.2007 |
|---------------|-----------------|-------------------|-------------------|
| 0             |                 |                   |                   |
| 1             |                 |                   |                   |
| 2             | x               |                   |                   |
| 3             |                 | x                 |                   |
| 4             |                 |                   | x                 |
| 5             |                 |                   |                   |

### Graph of the muscular balance assessment

S A. - 10 years



### CONCLUSIONS

- In hospitals there must exist orthopedic wards and physiotherapy services.
- Orthopedic plays anatomy and function therapist.
- The anatomical complexity of its components, tibio-tarsal articulation recovered gradually and over time.
- The bone lesion is closer to the joint stiffness is more difficult to recover.
- Therapist treatment prevents complications
- Treatment therapist applied during immobilization segments shorten recovery vacant.

- Means associated with physical therapy (paraffin, massage, electrotherapy, vibration massage on soft parts, hydrokinetotherapy) contribute favorably to final recovery.
- Isometric contractions applied under gypsum decreases muscular atrophy during immobilization.
- Precocity shortens recovery program recovery.

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**Titlu:** Recuperarea articulației gleznei posttraumatice la copii prin mijloace kinetice

**Cuvinte cheie:** Kinetoterapie, recuperare, articulația tibio-tarsiană.

**Rezumat:** Materialul expus contribuie la evidențierea rolului kinetoterapiei în recuperarea articulației tibio-tarsiene atât pe perioada imobilizării cât și după înlăturarea acesteia. Scopul recuperării constă în evitarea sau reducerea oricărei infirmități, în reducerea invalidității și incapacității de muncă și, mai ales, în crearea unei noi stări de echilibru, bazată pe capacitățile fizice și funcționale restante prin intermediul cărora pacientul trebuie să fie învățat și antrenat să se adapteze la viața activă.