

## Diagnosis

### Introduction

- There is a traumatic injury to the lateral capsular ligament of the ankle.
- No difference is made between a simple or a multiple injury.
- Examination and treatment takes place within six weeks of the injury occurring.
- Ideally, application of the approach should be carried out in the acute phase, i.e., within five days of the injury.
- The different phases of normal recovery are main subjects. (Table 1)



Phase	Normal tissue recovery phase	Therapeutic phase
1	Inflammatory phase: injury occurred 0-3 days previously	Therapeutic phase 1
2	Proliferation phase: injury occurred 4-10 days previously	Therapeutic phase 2
3	Early remodeling phase: injury occurred 11-21 days previously	Therapeutic phase 3 (integration phase)
4	Late remodeling phase: injury occurred 3-6 weeks previously	Therapeutic phase 4 (Transfer phase 1*)
* Transfer phase 1: desired load-bearing capacity in normal daily activities and work.		

Table 1.



### Referral

- The patient has been referred by a primary care physician or medical specialist with an 'acute ankle sprain'.
- The referral documentation should include medical data indicating an injury to the lateral capsular ligament of the ankle.



### Diagnosis

The diagnostic process is to assess, while taking into account medical data in the referral documentation, whether physical therapy can influence the causal and aggravating factors that led to the health problem.



### History taking

- Causal factors: how did the trauma occur, is it a recurrent injury?
- Progress over time: when did the trauma occur; what actions has the patient taken; progress over time of the swelling, pain and load-bearing capacity.
- Current complaints: pain; weight-bearing function; to what extent can the patient apply weight to the joint during normal daily activities, at work and in sports; relevant additional pathology.



**Examination**

- Where is the pain located; intensity of the swelling; color of the skin; postural abnormalities observable.

**Functional testing**

- Active movement tests.
- How much weight can the foot bear.
- Examination of walking.

**Function score**

Enables the physical therapist to make a prognosis about the expected time for recovery. The function score can also be used to obtain a reference value against which the patient's rate of healing during recovery can be judged. If the function score is greater than 40 points, the patient can be expected to be able to carry out daily activities within 14 days.

**Differential diagnosis**

When a fracture, muscle or tendon injury, or more extensive pathology is suspected, the referring physician should be consulted.

**Analysis and treatment plan**

- What is the recovery phase of the affected tissues and organs at examination?
- Do the physical therapy findings reflect a normal course of recovery?
- Does the duration of symptoms reflect the indicated phase of normal recovery?
- What is the prognosis for recovery
- If recovery is found to be abnormal: Are the local and general conditions appropriate for recovery and can any local and general factors that are retarding recovery be influenced by physical therapy?

**Conclusion**

- Is the referral for therapy appropriate?
- Can the patient be treated according to this guideline?
- A treatment plan should be formulated in consultation with the patient?

## Therapy

### Therapy

#### General

If the patient has been referred between zero and five days after injury, the frequency of treatment can be established using the function score:

- If the function score is 40 points or less and recovery is progressing normally, weekly appointments should be made to change the tape, assess recovery, and administer treatment in accordance with the guidelines.
- If the function score is 40 points or less and there is abnormal recovery, the frequency of treatment should be adjusted, perhaps increased
- If the function score is more than 40 points, if appropriate, the ankle should be taped and an appointment made for check-up. The treatment given depends on the patient's individual goals.

#### Specific

The central goal is to optimize the functions, abilities and level of participation. The therapeutic process is designed in accordance with the different phases of normal recovery.

An important goal of all phases is to give information and advice.

If the results are not equal to the normal recovery process, there must be an analysis of possible causes for the abnormal recovery. Which factors are retarding normal recovery; can these factors be influenced by physical therapy, and can the patient be treated according to these guidelines? If the therapist has any doubts about the severity or nature of injury, he should consult the referring physician.

### Phase 1 of therapy Inflammatory phase: 0-3 days

Treatment goals: reduce pain and swelling, stimulate the circulation, enable partial loading, and increased understanding of the the patient's problem.

Physical therapy interventions: giving information and advice, exercise function and skills, and guiding recovery:

- Supply information about the nature and severity of the injury and what can be expected;
- rest, elevate the foot, if appropriate, a cold compress;
- place weight on the foot guarding the pain, if appropriate, use crutches;
- at work, if the patient's job requires him to put his weight on the affected ankle, he should apply for sick leave or consult his employer about ways of avoiding the activities concerned;
- the foot and toes should be moved as much as possible within the pain threshold.

Details of check-ups and further treatment are given in the description of therapeutic phase 2.

### Phase 2 of therapy Proliferation phase: 4-10 days

Treatment goals: counteract activity limitations and functional impairments, increase load-bearing capacity.

Physical therapy interventions: tape/brace, advice, exercise functions and skills, and guide recovery:

- the injury should be taped or a brace used once the swelling has decreased sufficiently;
- stimulate a symmetrical load when walking;
- exercises should aim to improve mobility, active stability, co-ordination and walking.

The patient should undergo a check-up and receive further treatment after about one week.

**Phase 3 of  
therapy  
Early remode-  
ling phase:  
11-21 days**

Treatment goals: improve muscle strength, active (functional) stability, mobility and movement while walking (running and using stairs).

Physical therapy interventions: give information, apply tape or brace if necessary, exercise functions and skills:

- give information about protective measures that could be taken when exposing the ankle to severe stress, for example, sporting activities;
- advice the use of tape or a brace during sporting activities;
- improve balance, muscle strength, mobility and movement.

The patient should undergo a check-up and receive further treatment after about one week.

**Phase 4 of the-  
rapy (Transfer  
phase 1)  
Late remode-  
ling phase: 3-6  
weeks**

Treatment goals: increase the regional load-bearing capabilities needed for walking, using stairs, working, carrying out household chores, and participating in sporting activities.

Physical therapy interventions: give information and advice and exercise function and skills:

- the exercise program should be adjusted to incorporate normal loads. The priority should be training co-ordination while practicing activities such as hopping and jumping.

**Conclusion  
and reporting**

At the conclusion of treatment, reports should be made in accordance with the guidelines of reporting and data transmission to physician.