

Your Opportunity to  
Return to Activity  
Faster!

# Natural Help for Injuries

ACP Therapy



# Musculoskeletal Injuries



Our musculoskeletal system consists of a complex composition of different structures that allow us to move purposefully. In addition to the skeletal musculature, tendons play an important role as the connecting element between muscles and the bony skeleton. As force transmitters, they make purposeful movements possible. Ligaments, in turn, serve to strengthen and secure our joints.

All of these structures are subjected to enormous mechanical stresses on a daily basis, which often result in injuries. The main causes are permanent unequal load distribution, overloading, and external violent impact, such as wrong movements and accidents.

## Where and How Do Injuries Occur?

### **Muscles:**

Jerky movements, excessive stress and sudden muscle tension often lead to muscle injuries and tears.

### **Ligaments:**

Falls, impact and compression often cause injuries to ligaments and the joint capsule as well as ligament straining and stretching.

### **Often Affected:**

- Ankle, knee<sup>1</sup> and wrist

### **Tendons:**

Since tendons consist mainly of collagen fibers, they can tear during jerky, fast movements. Prolonged unilateral or excessive stress can also cause micro-injuries with persistent pain and functional impairment. Conditions such as tennis and golfer's elbow, jumper's knee, heel pain and calcaneal spurs all result from tendon injuries.<sup>2-6</sup>

### **Often Affected:**

- Elbow, shoulder, knee, foot and ankle

## How Does One Recognize These Injuries?

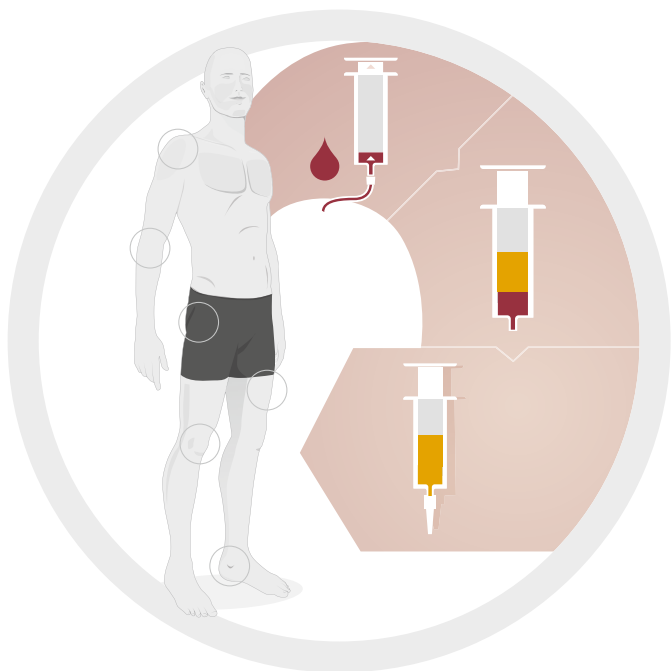
- Swelling and pain in the affected area
- Loss of function
- Limited mobility of the joint
- Feeling of instability in the affected joint

## Natural Therapy for Injuries

Complex and well-regulated natural processes take place in the body during recovery. Special proteins – the so-called “growth factors” – are always present in the blood platelets and are involved in this recovery. Platelets are inactive in the bloodstream but become activated when injuries occur. They collect at the injured site and release these proteins, which in turn promote the healing process.<sup>7</sup>

### **ACP Therapy**

ACP therapy is based on this principle. In ACP therapy, high concentrations of these special proteins are obtained<sup>8</sup> and then injected into the body, utilizing the body’s own self-healing processes. The form and frequency of administration of these proteins may vary depending on the type of injury. A personalized treatment plan will be designed that may include several injections in weekly intervals.



### The Treatment Process

1. Blood is drawn from a vein in the arm
2. Separation process obtains the body's active substances (proteins) in concentrated form
3. These substances are injected into the affected region

### Benefits of the Treatment

- Outpatient procedure
- Fast process (< 30 min.)
- Endogenous, biological agents with good tolerability
- Personalized treatment interval
- Customized to your needs

# Studies

1. Koch M et al: Intra-ligamentary autologous conditioned plasma and healing response to treat partial ACL ruptures; Archives of Orthopaedic and Trauma Surgery, 2017; 138(5): 675 - 683
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Lebiedzinski R et al: A randomized study of autologous conditioned plasma and steroid injections in the treatment of lateral epicondylitis. International Orthopaedics. 2015; 39(11): 2 199 - 203
3. Chew KT et al: Comparison of autologous conditioned plasma injection, extracorporeal shockwave therapy, and conventional treatment for plantar fasciitis: a randomized trial. PM&R. 2013; 5(12): 1 035 - 43
4. Boesen AP et al: Effect of High-Volume Injection, Platelet-Rich Plasma, and Sham Treatment in Chronic Midportion Achilles Tendinopathy; [HYPERLINK \l „Am J Sports Med.](#) 2017; 45(9): 2 034 - 2 043
5. von Wehren L et al: The effect of subacromial injections of autologous conditioned plasma versus cortisone for the treatment of symptomatic partial rotator cuff tears; Knee Surg Sports Traumatol Arthrosc 2016; 24(12): 3 787 - 3 792

6. Zayni R et al: Platelet-rich plasma as a treatment for chronic patellar tendinopathy: comparison of a single versus two consecutive injections. *Muscles Ligaments Tendons Journal*. 2015; 5(2): 92 - 8
7. Mazzocca A et al: The positive effects of different platelet-rich plasma methods on human muscle, bone, and tendon cells. *The American Journal of Sports Medicine*. 2012; 40(8): 1 742 - 9
8. Mazzocca A et al: Platelet-rich plasma differs according to preparation method and human variability. *Journal of Bone & Joint Surgery*. 2012; 94(4): 308 - 316

For information on the studies please contact your physician.

## Do You Have Any Questions?

Your Physician Will Be Happy to Provide Further Information.



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