

Treating Fasciae with Shock Waves

A Case Study

Fasciae are connective tissue structures that pervade the entire body. In the 1950s, the American biochemist Ida Rolf examined fasciae for the first time. She believed that the connective tissue or fasciae played a greater role in muscle aches than muscles did. This resulted in rolfing, a manual body therapy that affects the network of fasciae in the human body. For a long time, it was unclear what really had an effect on the connective tissue and the role that it actually played.

Today, we know that fasciae cover all our muscles as well as all our organs. Muscles are only able to transfer their complete force through them.

Fasciae contain above all nerve endings, receptors and lymphatic fluids and thereby cover our bodies like a network.

Fasciae are flexible and can change.

In this way, they support our body in all its movements and play a significant part in aligning the body. They are the elastic cover that gives our entire body its anatomical shape.



Fig. 1: PERI-ACTOR™ 1 »knuckle«



Fig. 2: PERI-ACTOR™ 2 »scoop«

Research at the University of Ulm, Germany by Prof Dr Robert Schleip has been able to demonstrate that patients with muscular pain have fasciae in the respective areas that are markedly changed or thickened.

We can therefore conclude that reduced elasticity and increased stiffness of the fasciae increase irritation of the receptors and nerve endings. The resulting reduced mechanical functionality then leads to a susceptibility to muscle pain.



Fig. 3: Treating the plantar fascia using the PERI-ACTOR™ 3 »sphere«



Fig. 4: Treating the anterior tibial muscle and the extensor digitorum revis/hallucis longus muscle using the PERI-ACTOR™ 4 »scraper«

As a result, STORZ MEDICAL together with experienced physicians such as Dr Ulrich Piontkowski, Dr Stephan Swart and Dr Carlo Di Maio, have developed four different shock transmitters that can be used to treat the fasciae. The special shape of the shock transmitters and the corresponding pressure

that they administer are intended to dissolve the agglutinated locations and thereby prevent or even eliminate muscle pain.

Areas of application:

- Fascial therapy
- General treatment of the support and locomotor system
- Decreased functional mobility
- Muscular pain
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Authors:

Consultants for orthopaedics
Dr Stephan Swart and Dr Carlo Di Maio
Chirotherapy, acupuncture, sports medicine, physical therapy, osteology, osteopathy
47506 Neukirchen-Vluyn, Germany

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Case study: A 28-year-old competitive female footballer:
History as of December 2013: Metatarsal V shaft fracture on the left with osteosynthesis.

Due to persistent pain, the metal was removed. Existing exertional insufficiency, pain-relieving position and a period of rest from sport after 30 prescribed sessions of physiotherapy.

In June of 2014, shock wave therapy was started. At this point, the patient was also suffering from a limitation of the subtalar joint, hypertonia of the dorsiflexion and plantarflexion muscles of the foot as well as restricted joint play of the MTP joints. Course of treatment: Using the C15 trigger shock transmitter, we treated all the trigger points in the muscles of the foot and lower leg following the traditional pattern of Travell and Simons. Using a special fascia shock transmitter, we "ran down" trigger ligaments in accordance with Stephen Typaldos' fascial distortion model. Combining this treatment of fasciae and trigger points led to the patient being free of pain after five sessions. She was able to start a running training programme without interruption.