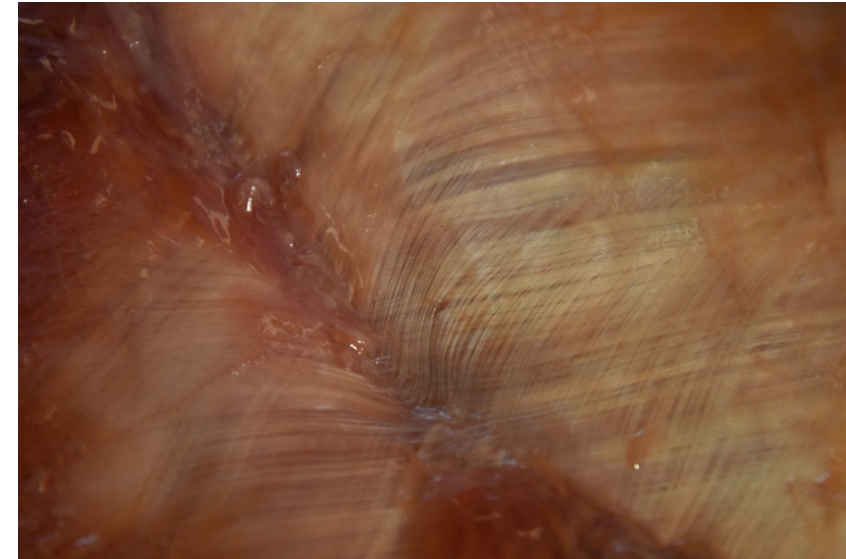




Veerkrachtige fascia

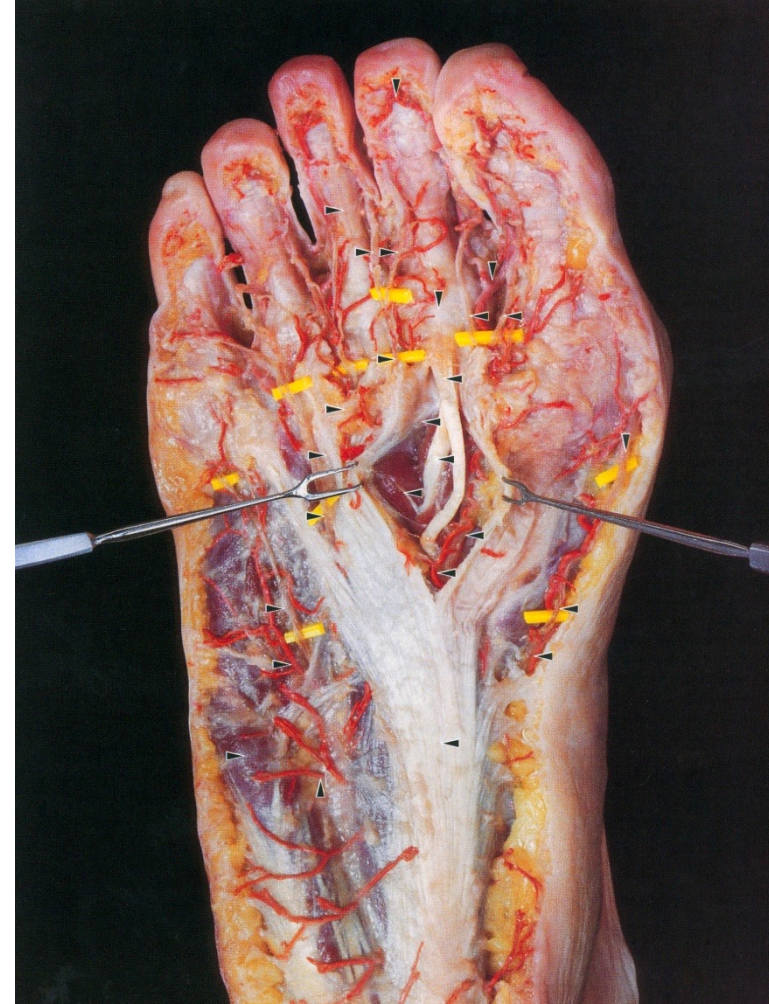
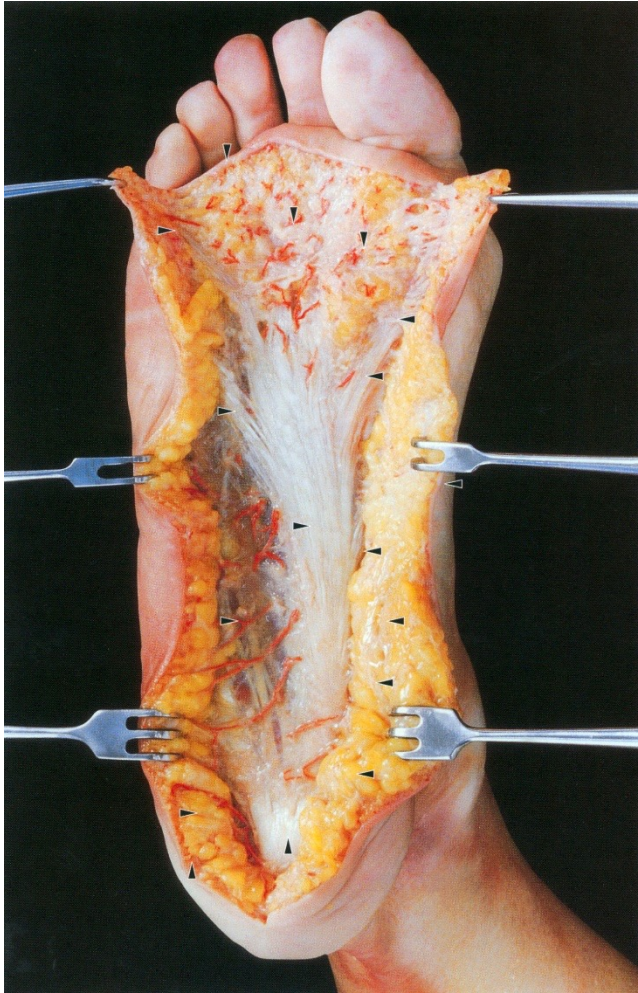
Lezing Voetentrainers

6 april 2023



(vdWijk 2019)

Fascia plantaris



Is de fascia plantaris een peesplaat?

Grondsubstantie (= interstitiële vloeistof)



Hyaluron



Water

Leefmilieu van alle cellen



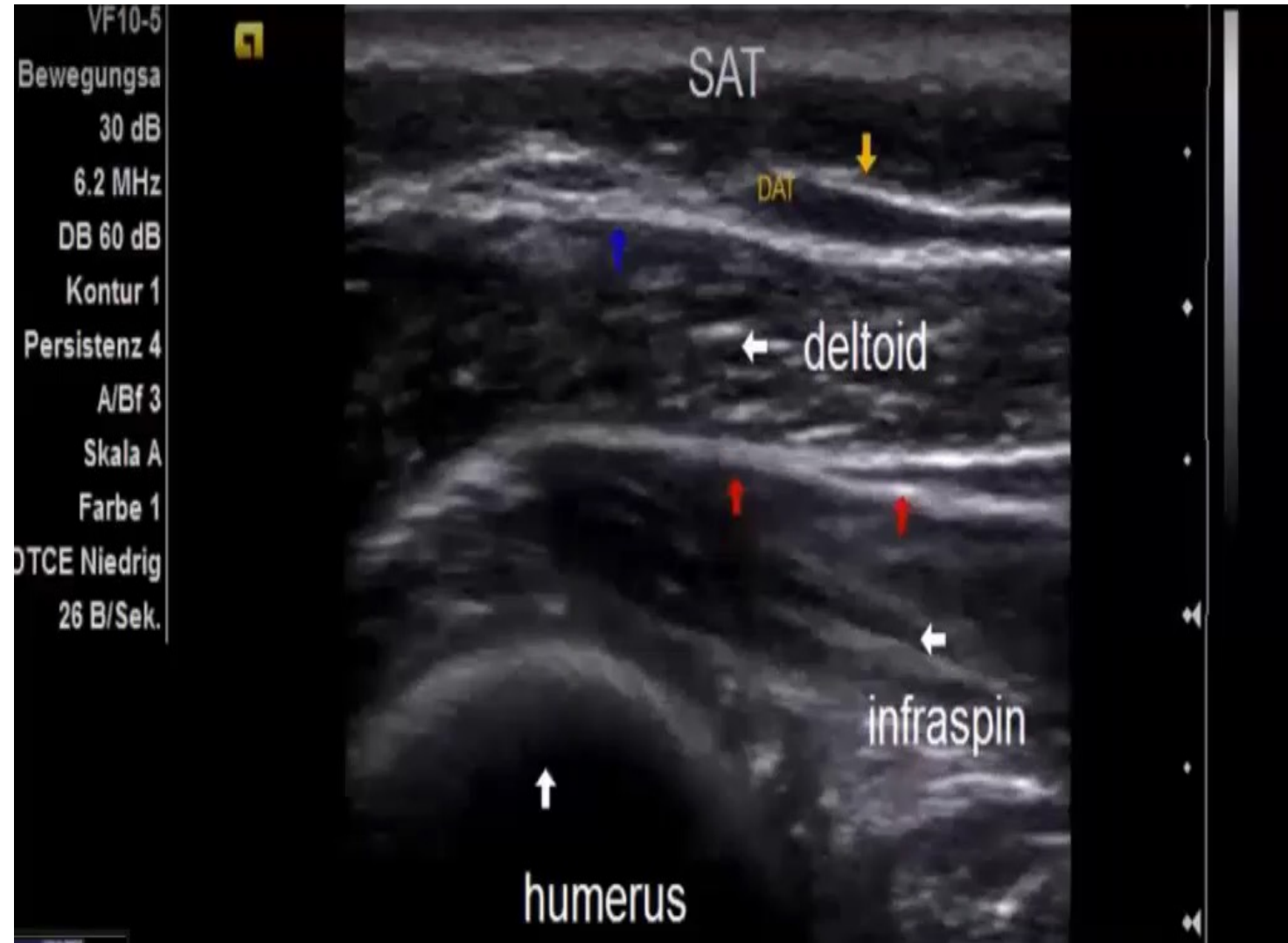
voeding

eliminatie

communicatie

De grondsubstantie is voor de cellen wat water is voor vissen!

Friction free movement

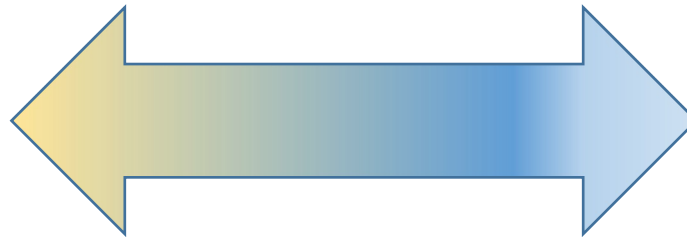


Stroperigheid

warmte
beweging
vibratie



kou
immobiliteit
verzuring



Elasticiteit: Energy storage

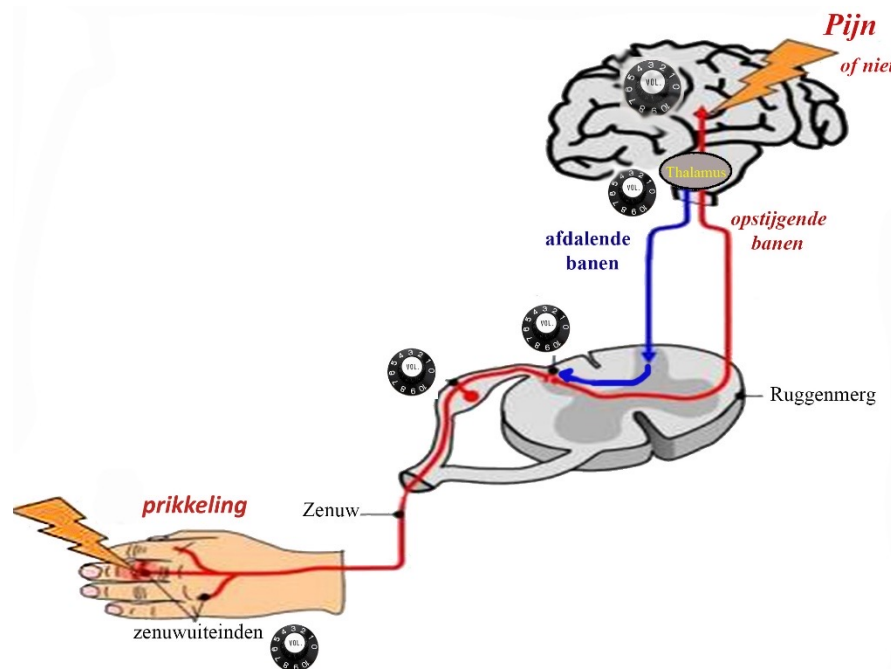


Virsky – veerkrachtige fascia



Waarom doet het pijn?

Pijn = Nociceptie × Gevoeligheid zenuwstelsel



3 verstoringen van homeostase

Temperatuur

Mechanische spanning

Chemisch milieu



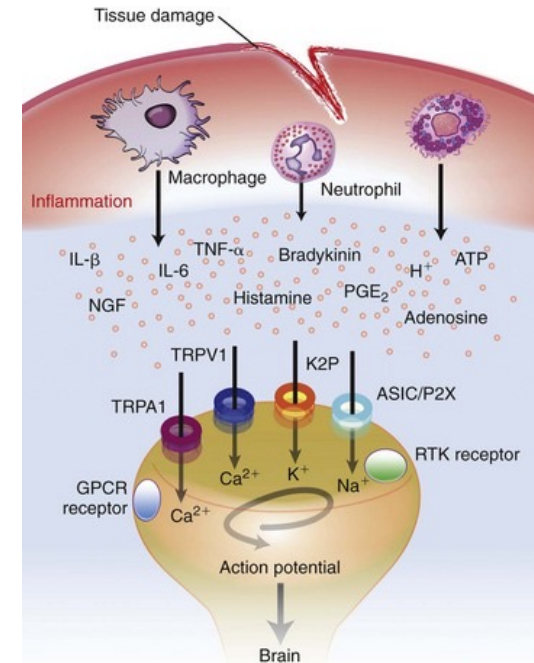
Chemosensoren!

Ontsteking

Inspanning

pH ↓

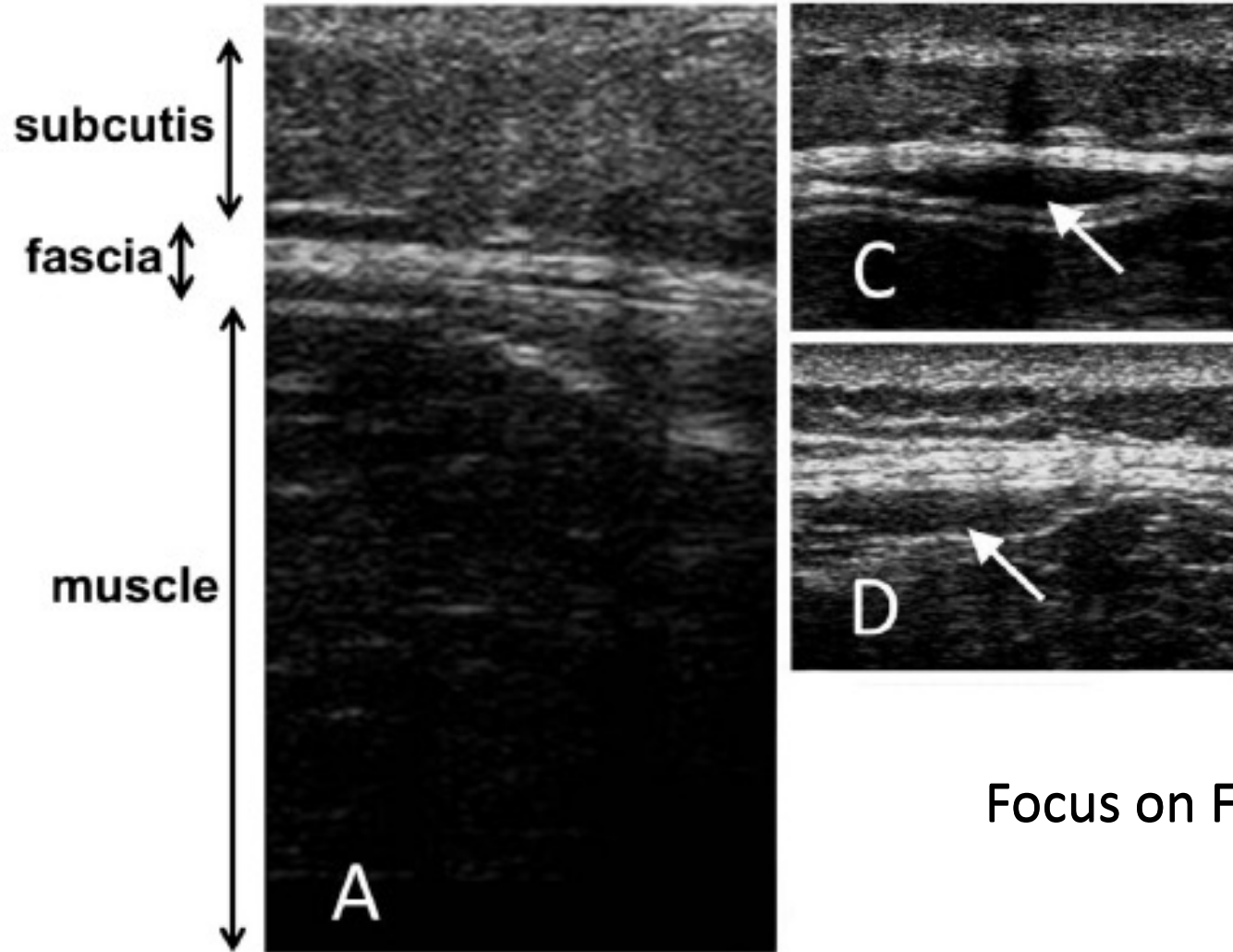
Ischaemie



Activatie chemosensoren



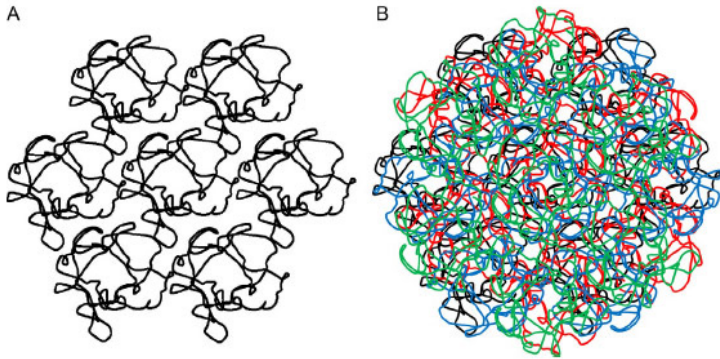
Sensitisatie mechanosensoren



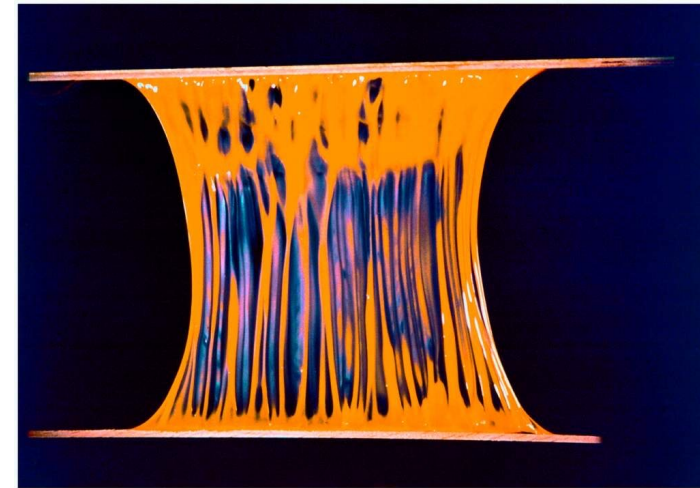
Focus on Fascia

Gevolgen verlaging pH (verzuring)

Op grondsubstantie

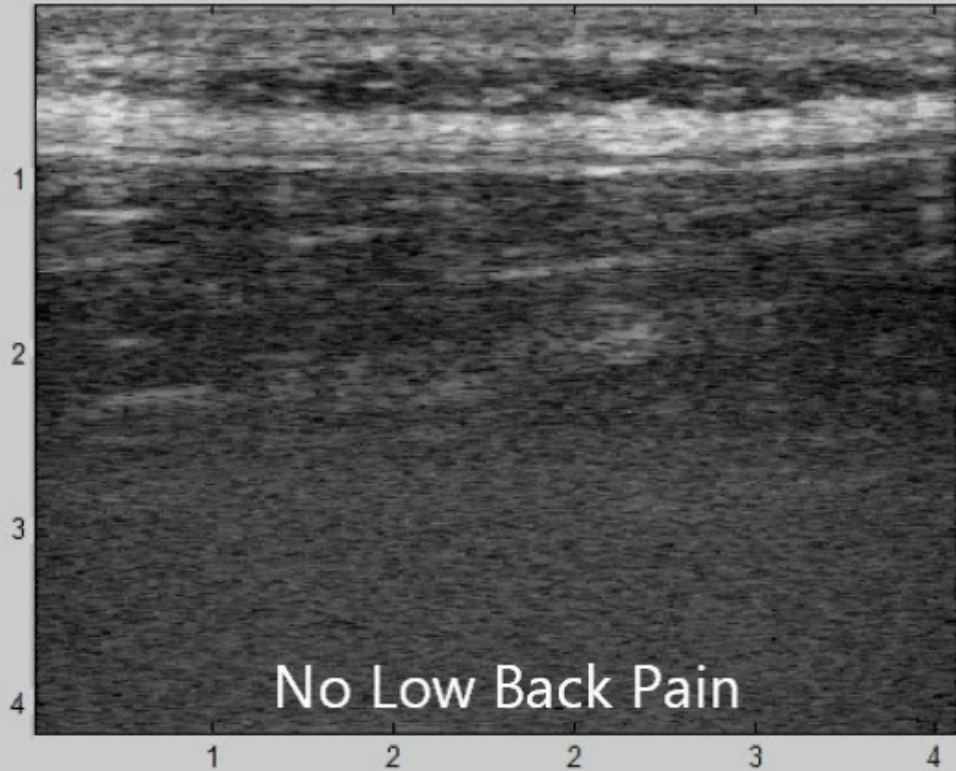


(Cowman 2017)

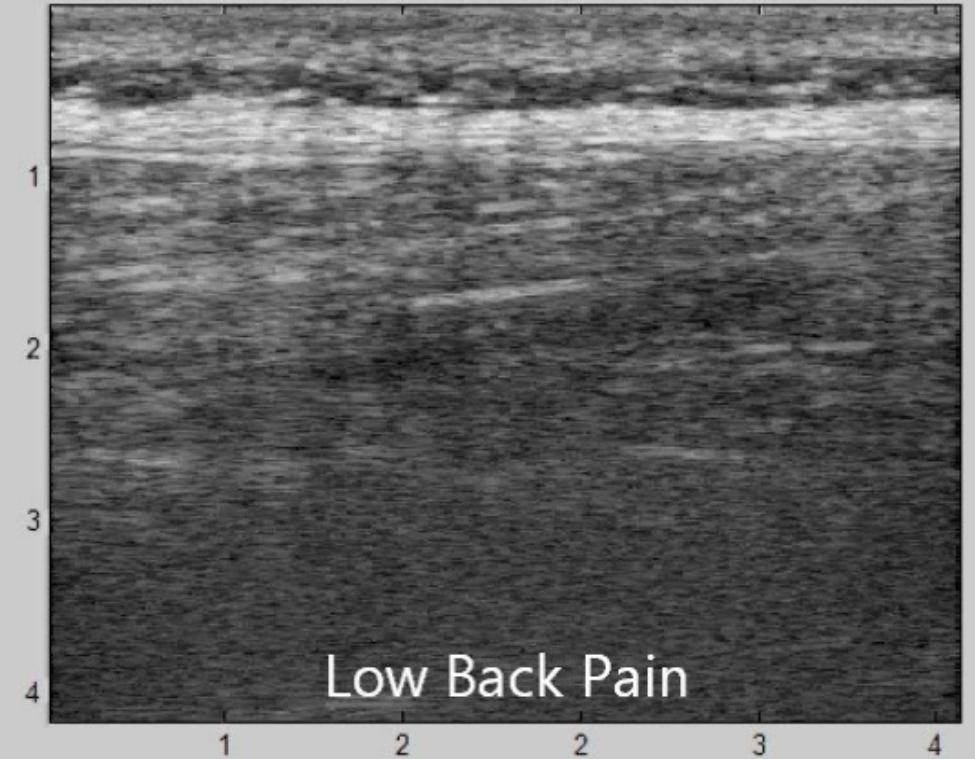


Densificatie

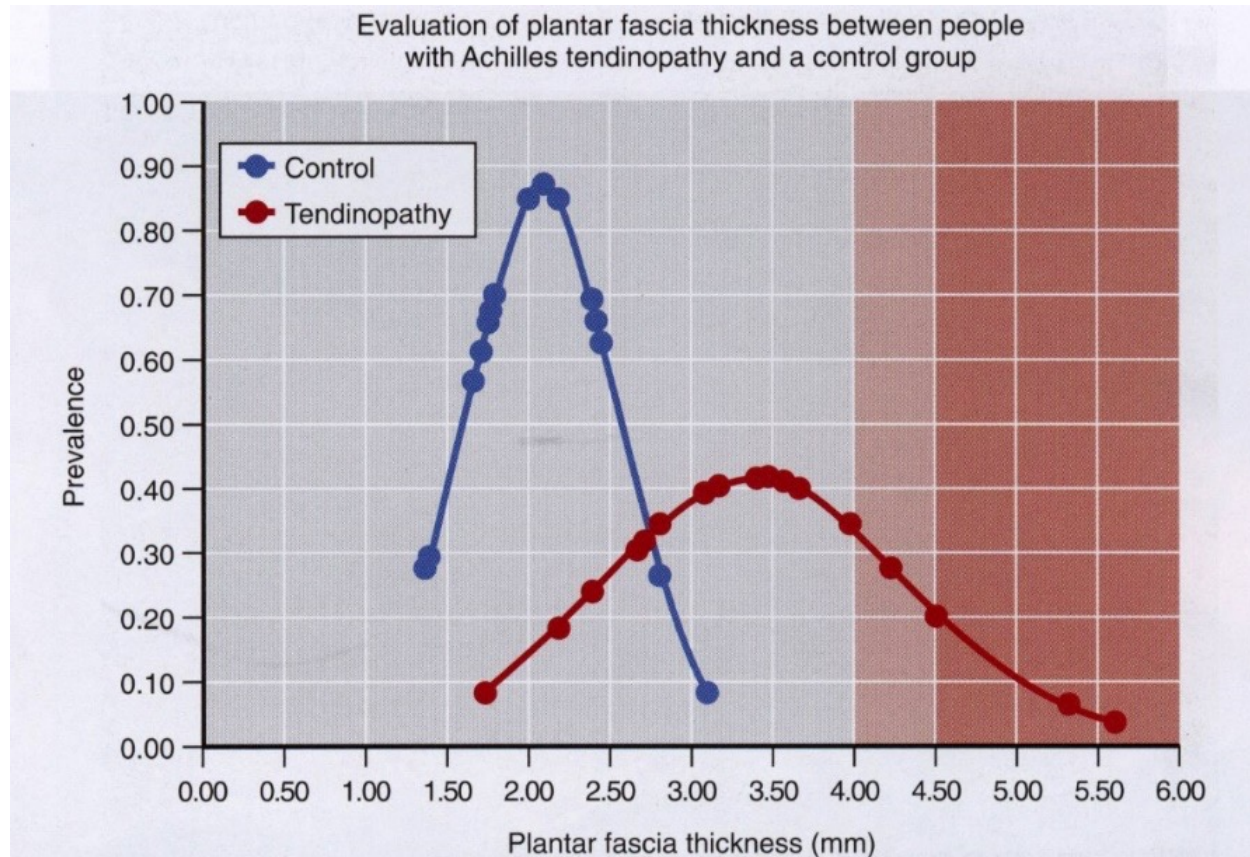
Frame 19



Frame 60

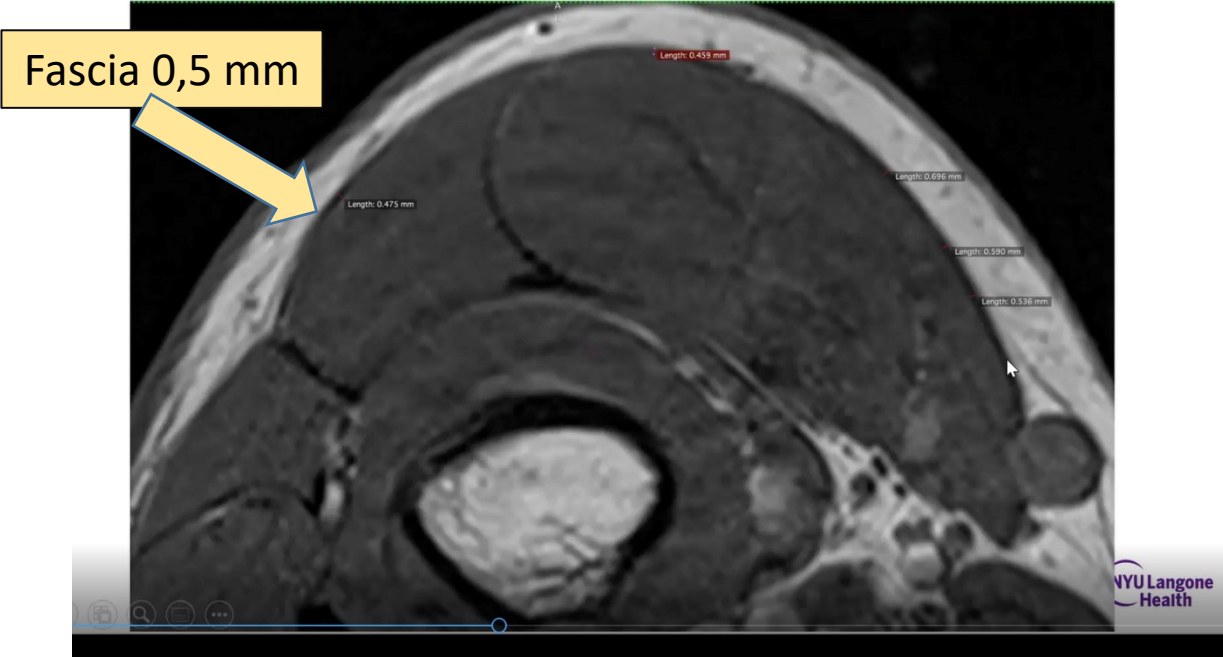


Hielspoor / fasciose plantaris



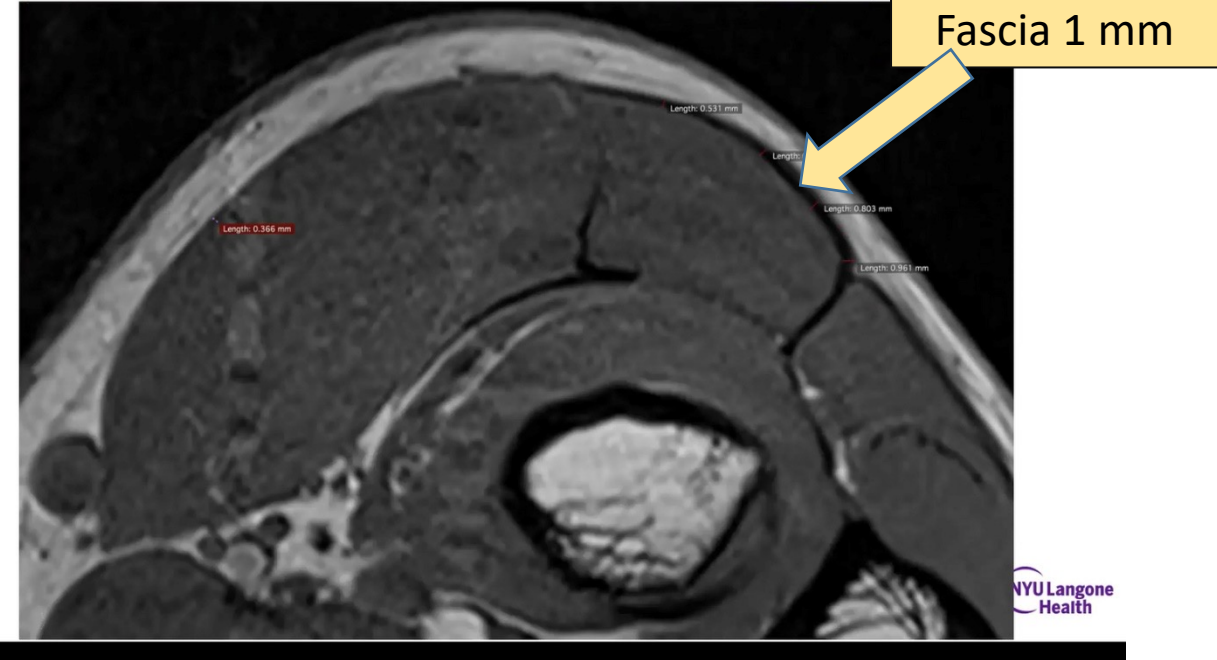
Tenniselleboog

Thickness of Antebrachial Fascia (left)



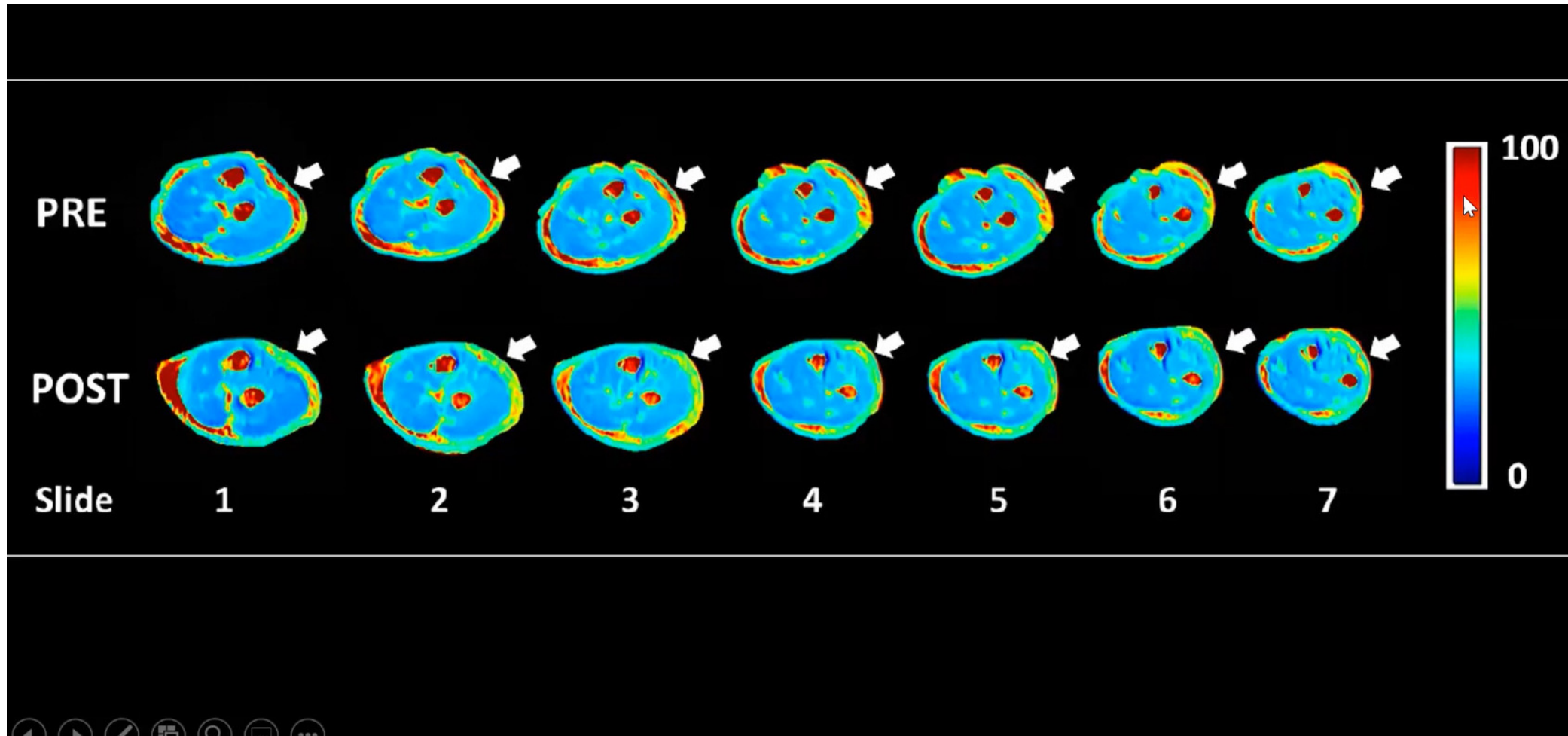
Goede zijde

Thickness of Antebrachial Fascia (right)



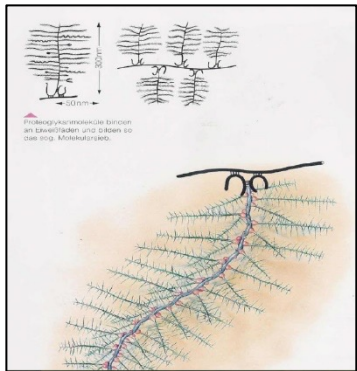
Aangedane zijde

Verdikte fascia: hyaluron densificatie



Hyaluron configuratie

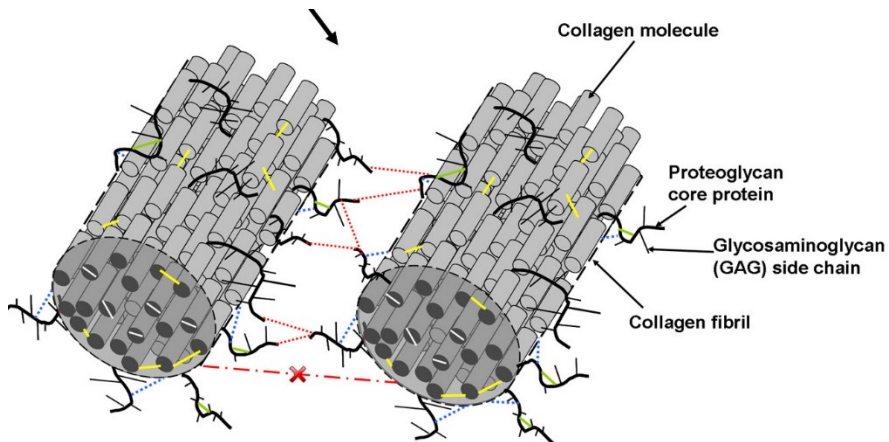
gefragmenteerd	normaal	samengeklonterd
Acute ontsteking		Lage pH / immobiliteit
Hydrofiel Inflammatoir algesic	Ontstekingsremmend Pijndempend Celbeschermend Pro-homeostase	Hydrofoob Stroperig Remming lymfe Remming beweging
gevaar	integriteit	Myofasciale pijn Functie verlies



Hyaluron

Gelose

Loss of elasticity



Pathologische crosslinks:

- AGE's: Stijf
(shear stiffness, bending stiffness)

‘Stethoscope’

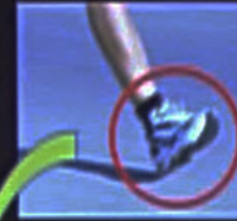


New Evolutionary Dynamic: Dysevolution

Body adapted for past environments



Culturally modify environment



Mismatch disease

Treat symptoms



Vicious circle

Schokdemping

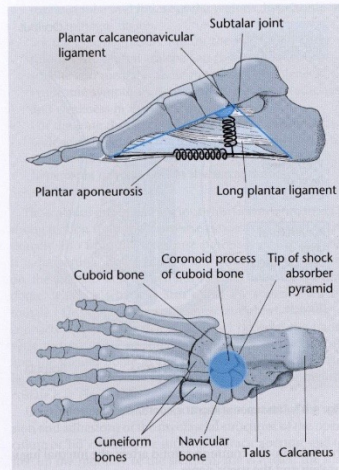


Fig. 4-45 The diaphragm of the foot and the shock absorber pyramid.

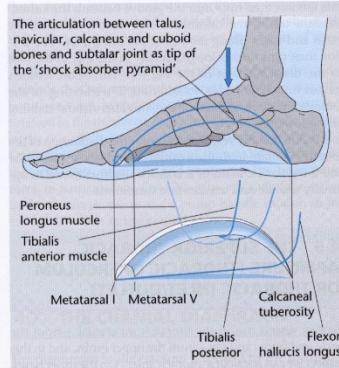
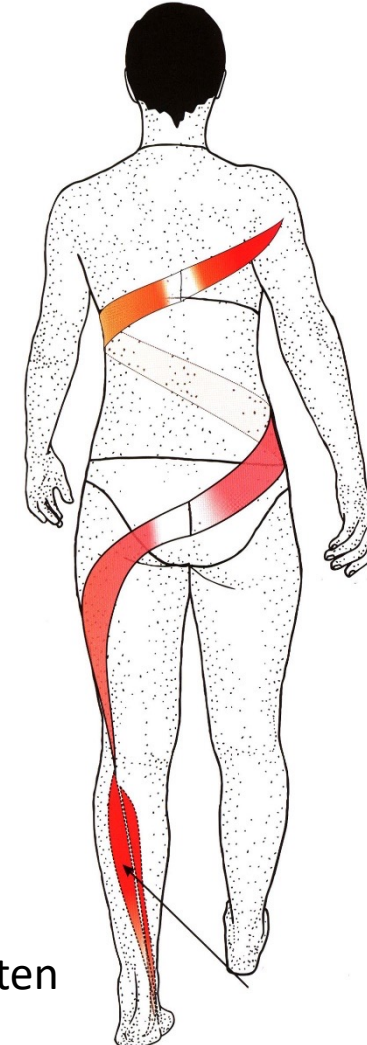


Fig. 4-46 Structure of the diaphragm of the foot and the 'shock absorber pyramid' as a tensegrity structure.

(Meert 2012)

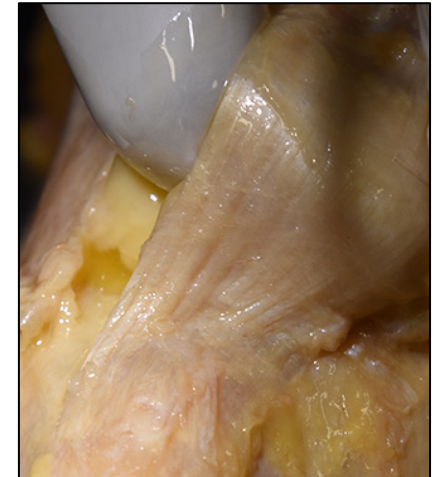


Extensie keten

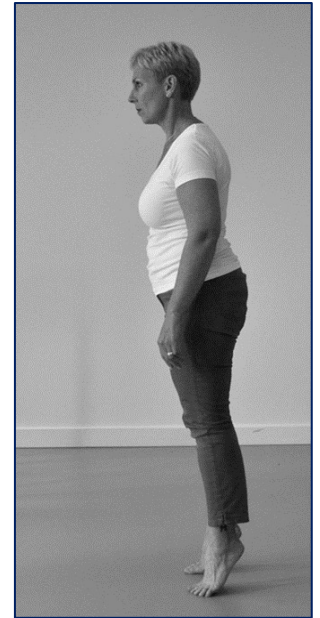
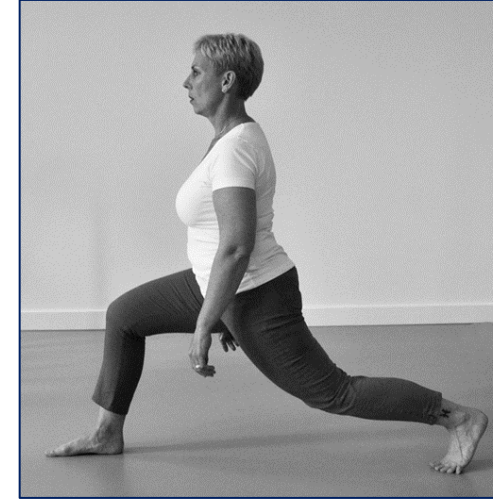
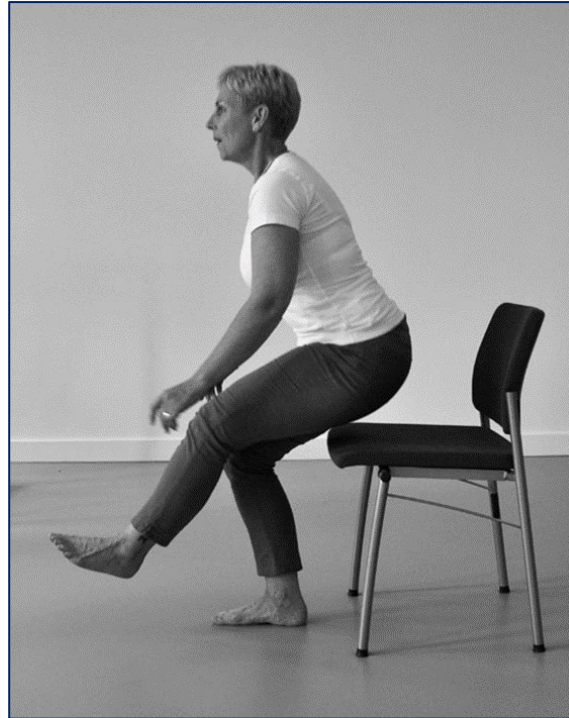
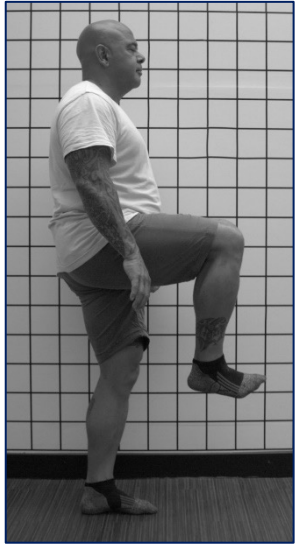
Tractus



(Stecco C 2015)



Fascia Functie Onderzoek



Disfuncties



***“When the feet are not happy,
the rest of the body is not happy”***

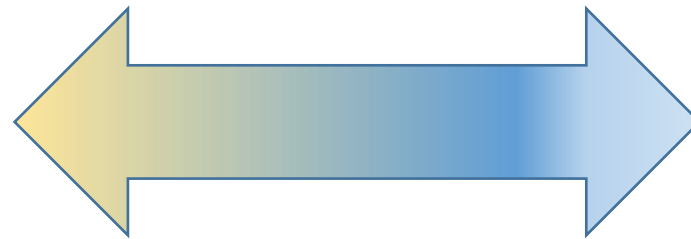
(Til Luchau) 26

Pijn in de ochtend....

warmte
beweging
vibratie



kou
immobiliteit
verzuring





Therapie

Pijn = nociceptie × sensitisatie

Nociceptie = verzuring
↑
belasting

Therapie = verzuring × belasting × sensitisatie



Verzuring ↓ - 'liquify the fascia'

Roman 2013:

Warmte

Verschuivingen

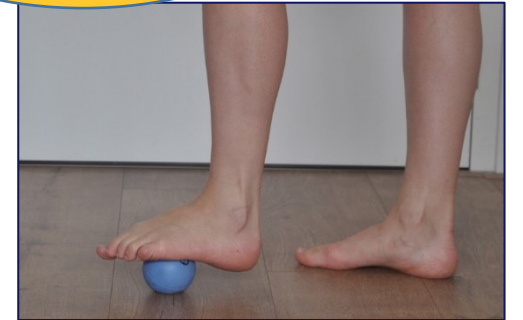
Vibratie



Make the soft tissues
soft again



Motion
is
Lotion!



Belasting ↑



Walking on toes



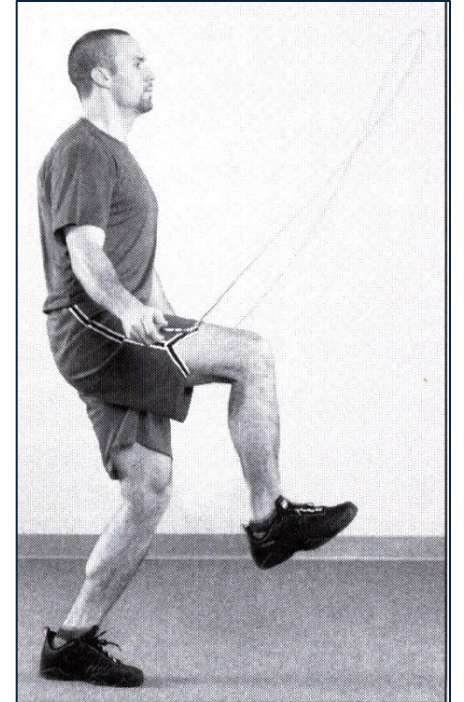
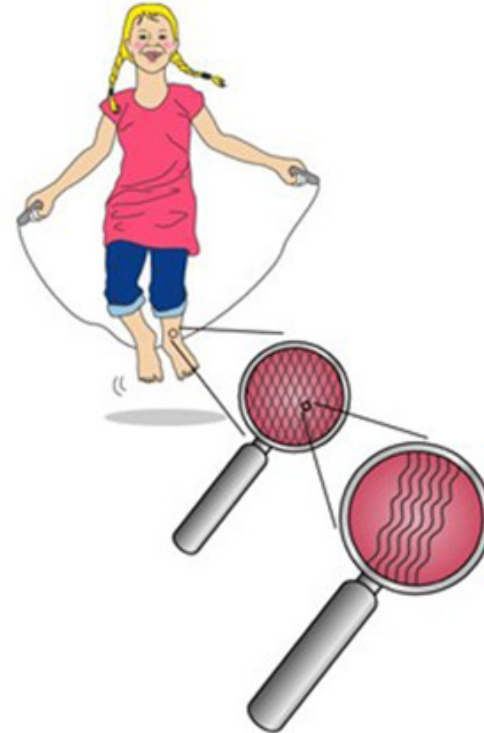
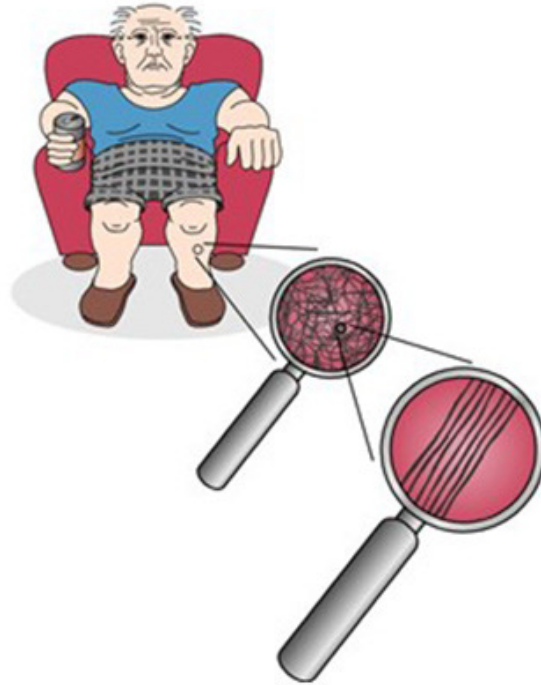
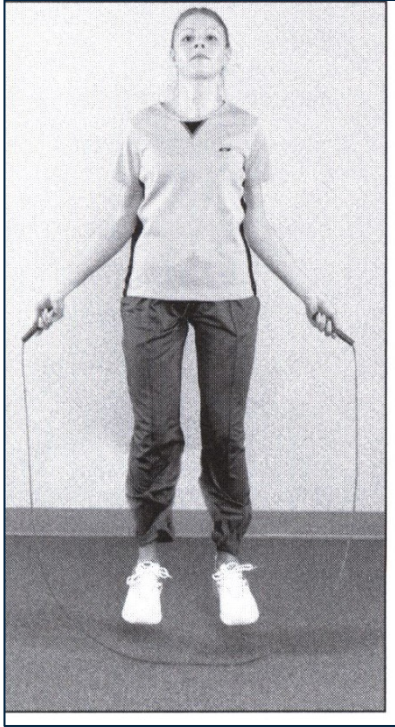
Barefoot exercises:

- Increase proprioceptive input

Barefoot shoes



Belasting ↑



Fascia training: what happens



Collagen remodeling at the micro level

Nicky de Jonge, MSc, prof. Carlijn V.C. Bouten, PhD

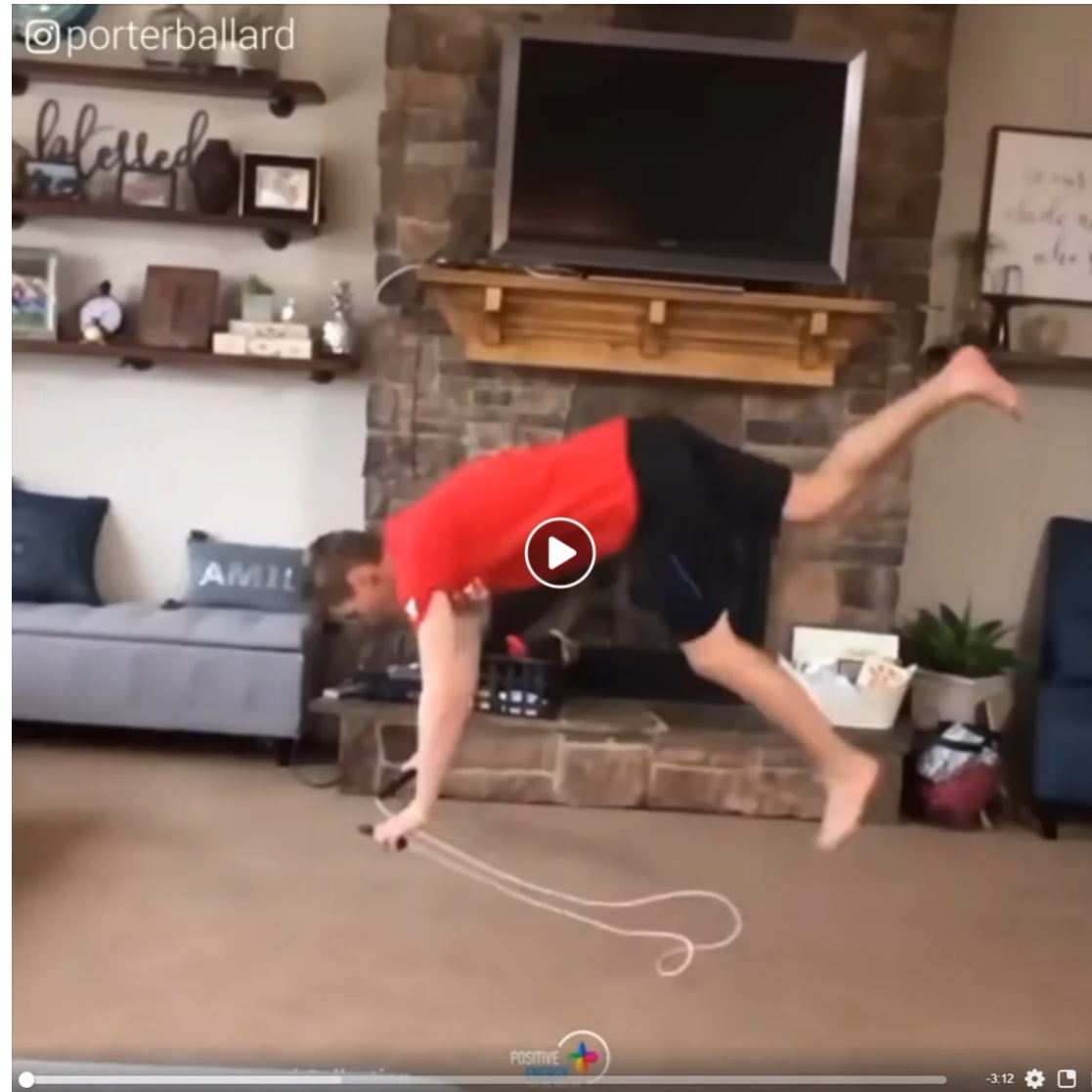
Soft Tissue Biomechanics and Engineering group
Department of Biomedical Engineering
Institute for Complex Molecular Systems

TU/e Technische Universiteit
Eindhoven
University of Technology

Where innovation starts

0:00 / 1:39

Voor nog wat inspiratie





Fasciatherapie bij fasciose

Bekijk hele keten

Liquify



Jump

Tot slot

