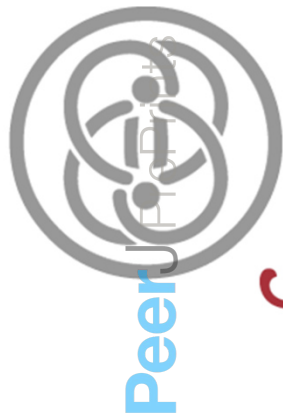


# Spiraldynamik - intelligent movement

Jens Wippert

Spiraldynamik ® is an anatomically based movement and therapy concept. It was founded by the physiotherapist Yolanda Deswarte, and Dr. med. Christian Larsen. During the time that he was professionally active as a pediatrician, Christian Larsen repeatedly wondered: “is the universal principle of organization, the spiral, also embodied in man?” Observing the babies and toddlers that he worked with inspired him to research further into movement sequences. International interdisciplinary research communities in medicine, physiotherapy, pedagogy, yoga, fitness, sports and dance have been working together researching this question since 1981. Their main preoccupations have been the connections between anatomy, the three-dimensional system and the laws of nature (i.e. gravity), using the spiral as a basic building block. Spatially, the spiral structure dominates as a place saving and stable structure. The temporal dimension of motion is defined by wave movement and rhythm. Time and space are united in the spiral and in dynamism. Coordinated movements are three-dimensional, using the anatomically given corporal structures. Only the three-dimensional joining of the spiral structures throughout our body makes harmonious movement possible. The form of the body’s joints and bones and the arrangement of the ligaments and muscles, indicate the body’s preferred movement and rotation directions. Since a spiral has basically two directions of rotation, it is a matter of turning in the direction set forth by the given structure of the body. This anatomical understanding trains precise three-dimensional movement coordination and permits an unexpected variety of movement to emerge.



*Spiraldynamik*  
intelligent movement

Dr. Jens Wippert

Munich, 1st Winter Symposium

PeerJ PrePrints

**Spiraldynamik®**

# **Biomechanics of the lower limb**

*Spiraldynamik*  
intelligent movement

# Helix: Universal structure



- . Plants
- . Shells
- . Horns
- . Crystals

© Spiraldynamik AG

# Helix: Macro- and microcosmos



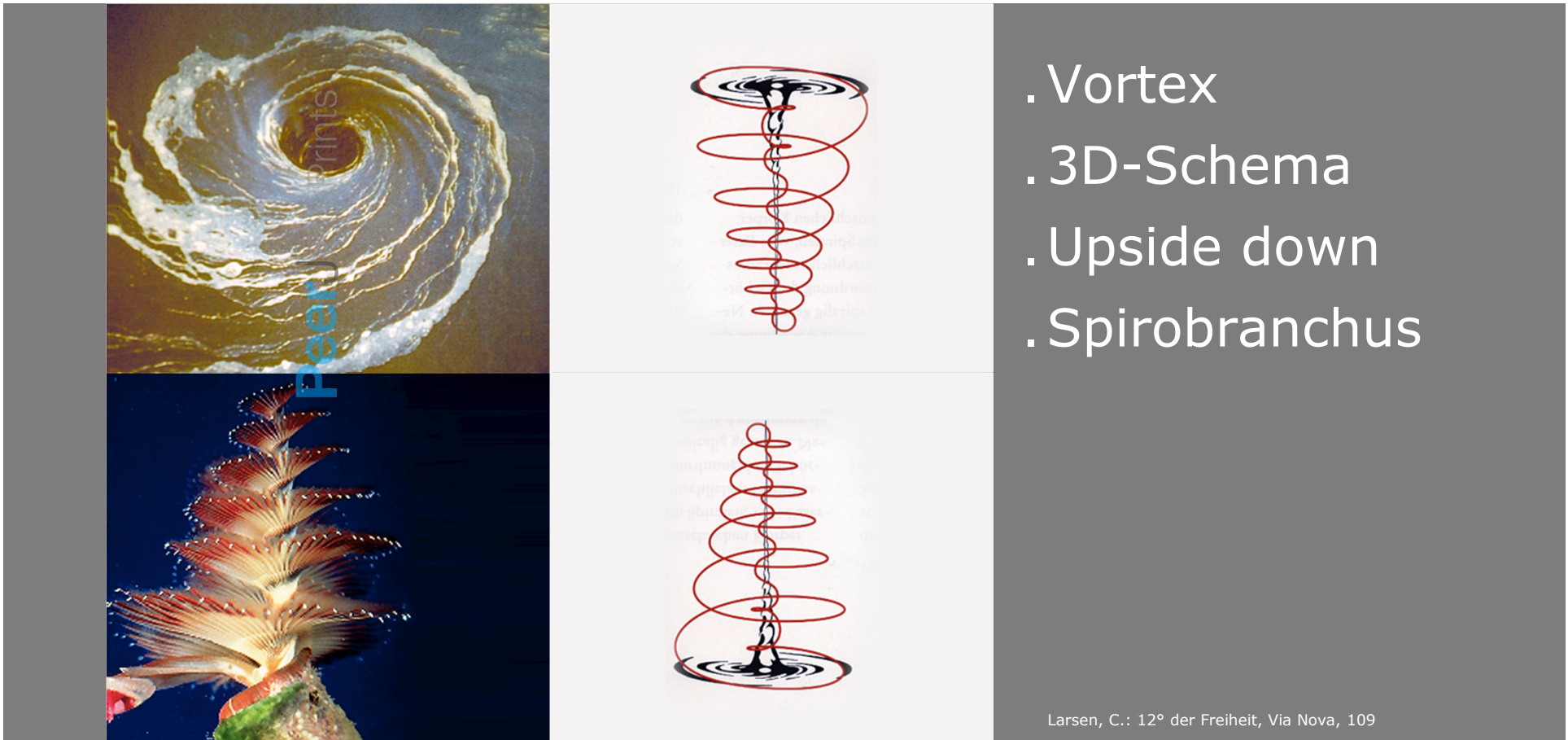
# Helix: Macro- and microcosmos



- . DNA
- . Aktin
- . Collagen
- . Proteins

1, 2: Larsen, C.: 12° der Freiheit, Via Nova, 107  
3: Q. n. e.

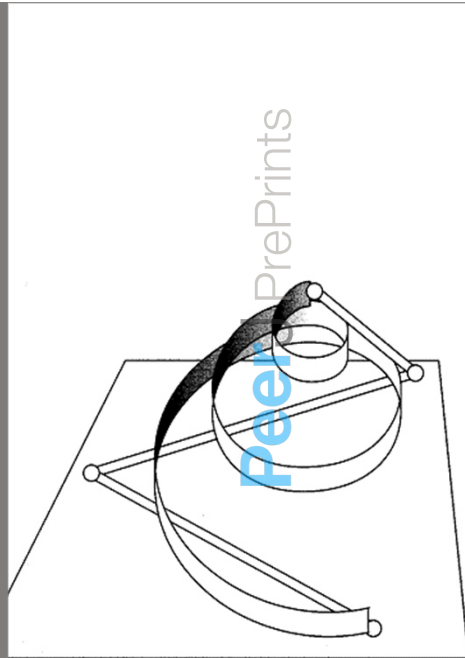
# Helix: 3D-Dynamic



- . Vortex
- . 3D-Schema
- . Upside down
- . Spirobranchus

Larsen, C.: 12° der Freiheit, Via Nova, 109

# Helix: easy flexible-stable

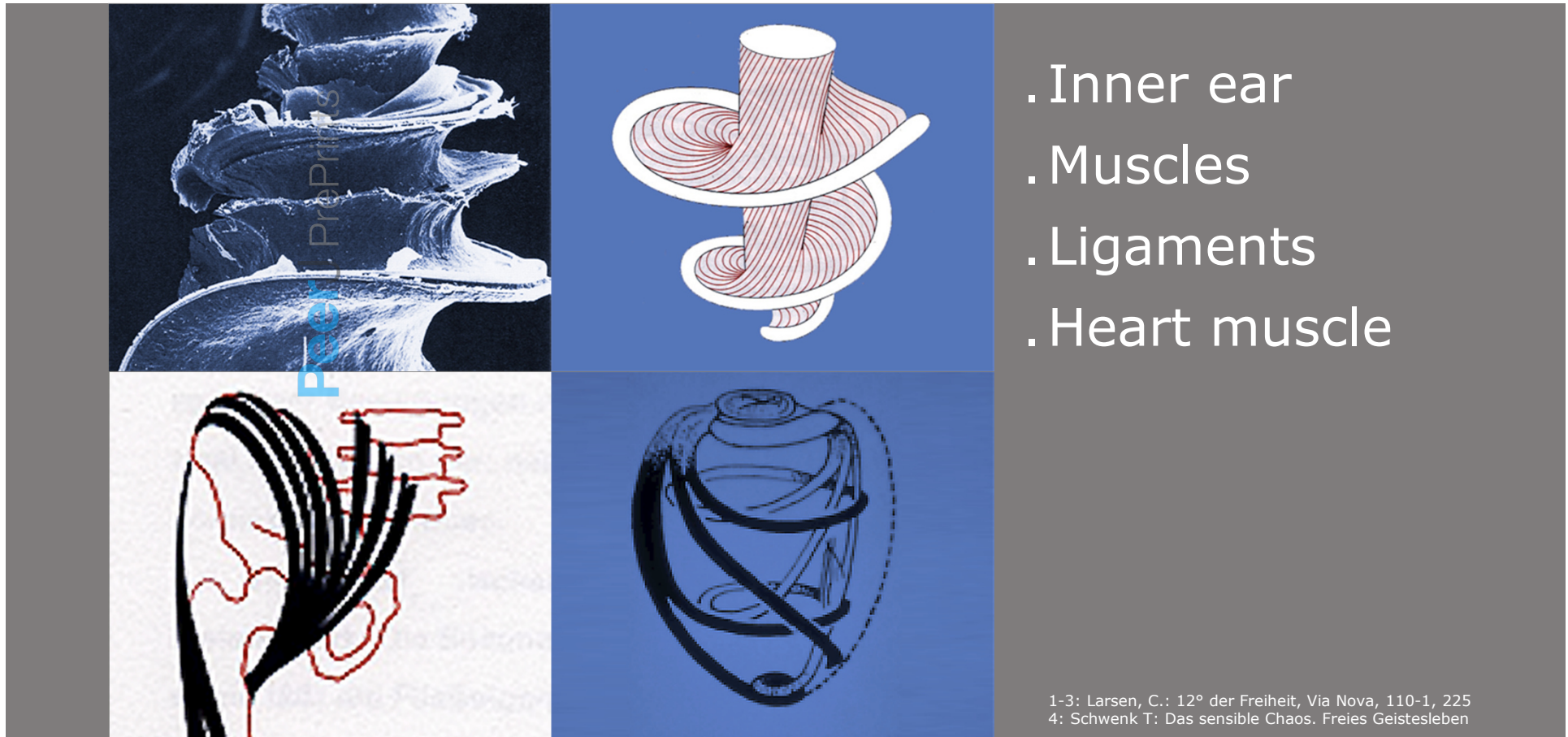


- . 1 angle 1 plane
- . 2 angles 2 plane
- . Tetrahedon
- . Helix

© Spiraldynamik AG



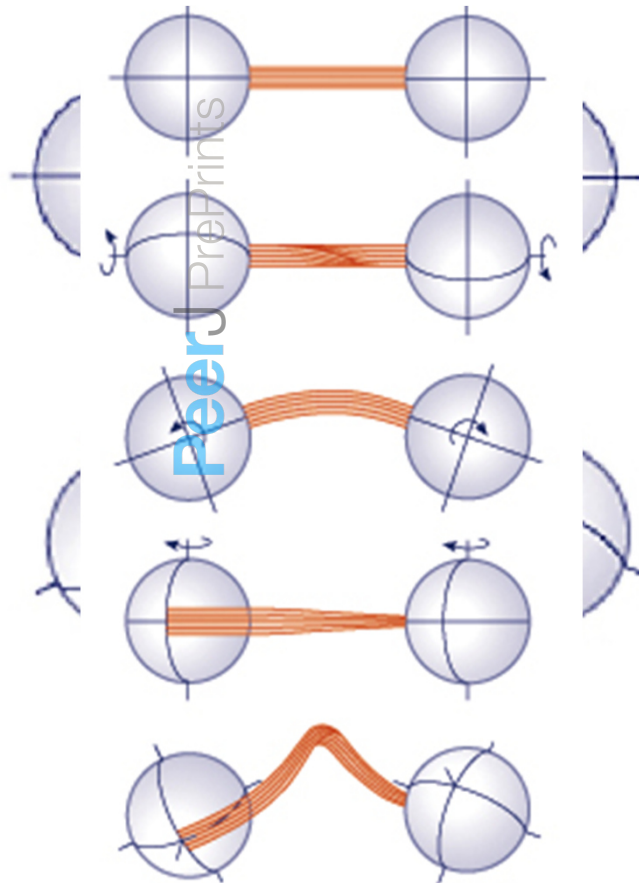
# Helix: Homo sapiens



- . Inner ear
- . Muscles
- . Ligaments
- . Heart muscle

1-3: Larsen, C.: 12° der Freiheit, Via Nova, 110-1, 225  
4: Schwenk T: Das sensible Chaos. Freies Geistesleben

# Helix: Concept of symmetry



- . Rotation
- . C-Bow
- . S-Bow
- . Helix

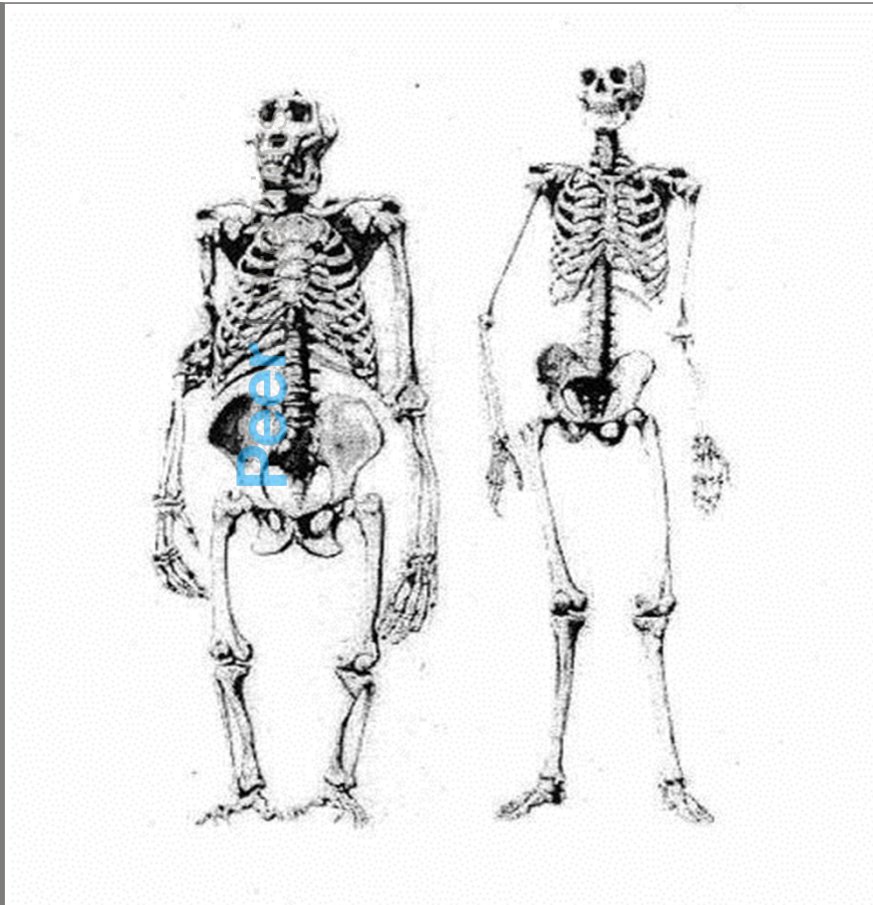
© Spiraldynamik AG

# Evolution in the move

- . Wave
- . Screw
- . 3D-Torsion
- . Combinations

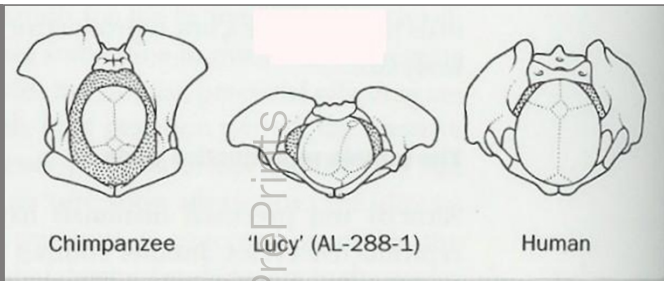
Larsen, C.: 12<sup>o</sup> der Freiheit, Via Nova, 126-35

# Evolution: Change through function

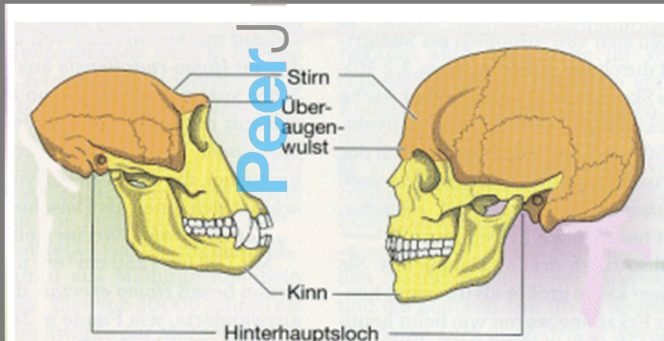


- . Mass
- . Volumen
- . Weight

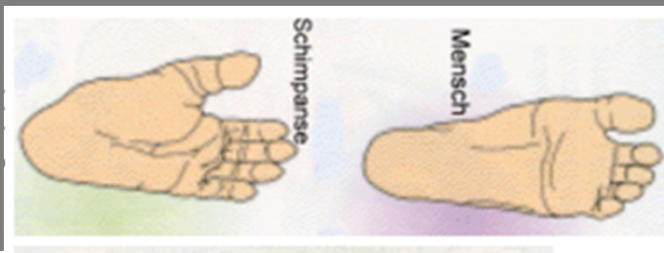
# Evolution: Change through function



. Relation pelvis mother to head child



. Change of the skull



. Change of the foot

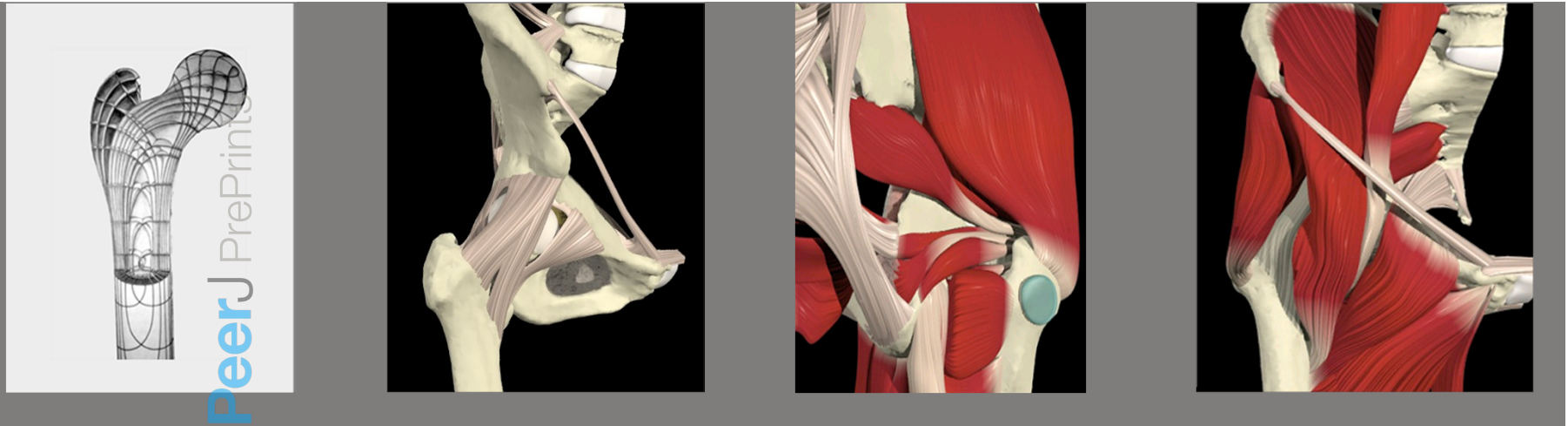
# Anatomy: Limbs



- . Enarthrosis
- . 1-2-3-4-5
- . Antetorsion and retrotorsion
- . Rotating hinge joint

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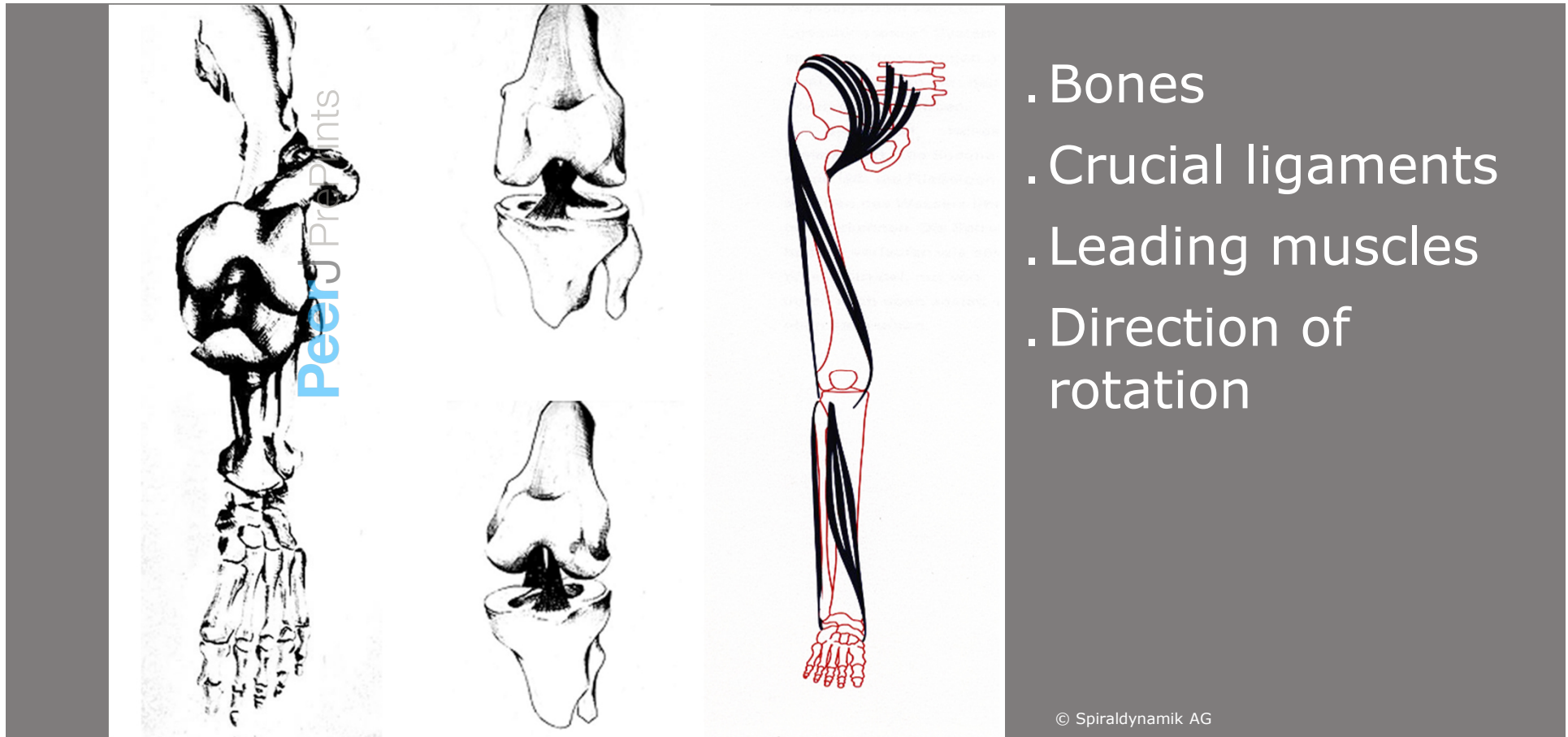
# Anatomy: Hip joint



- . Antetorsion Femur
- . 3D-Trabecula
- . 3D- „Ligament-screw“
- . Dominance of external rotators

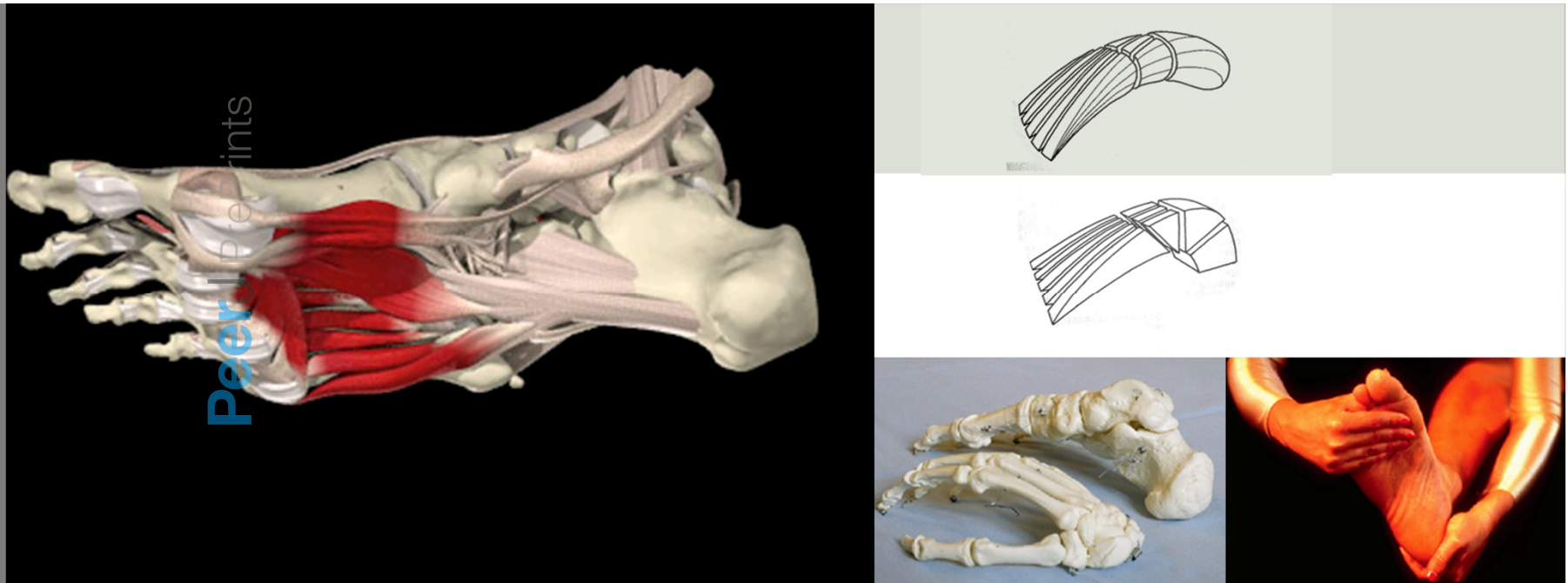
1: Modif nach Benninghöff  
2-4: © Primal Pictures

# Anatomy: Knee joint





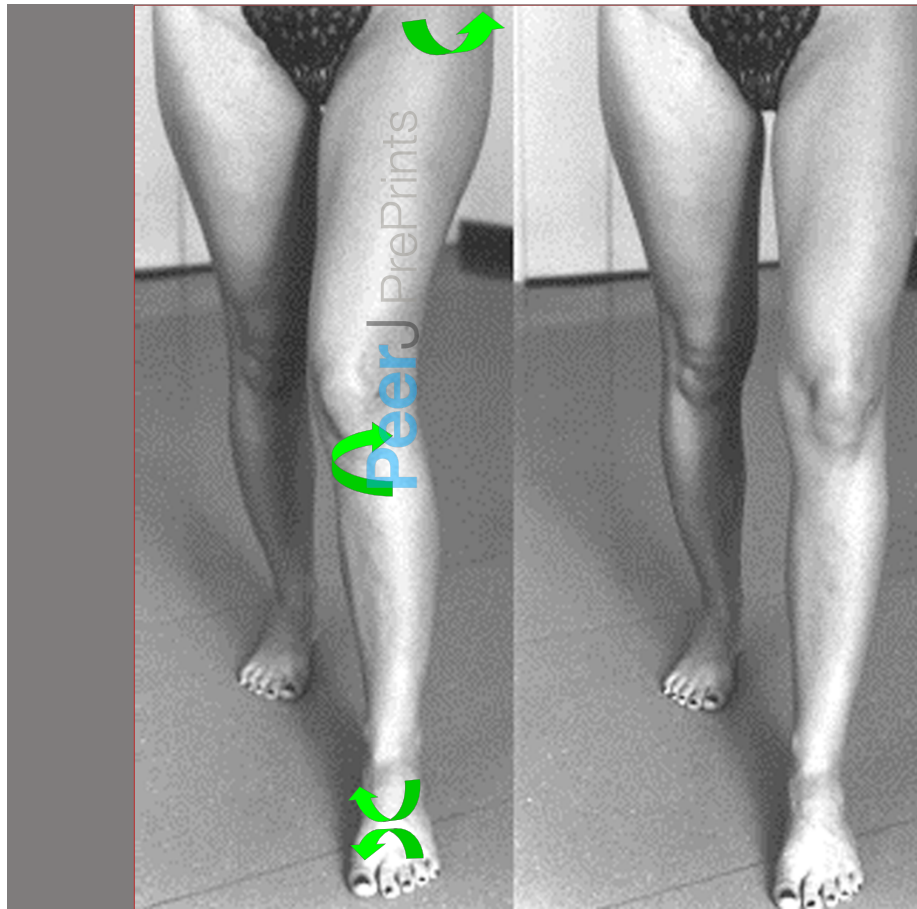
# Anatomy: Foot and arches



- . Principle of wedge
- . Principle of helix

1: © Primal Pictures  
2-5: © Spiraldynamik AG

# Take Home Message



1. Globalfunction  
e.g. Helix
2. Deformation reversible?!
3. Self-optimizing with  
intelligent movement

1: © ESSM  
2: Visage Albers

## More information

[www.spiraldynamik.com](http://www.spiraldynamik.com)

[www.elementhera.de](http://www.elementhera.de)

Articles / literature

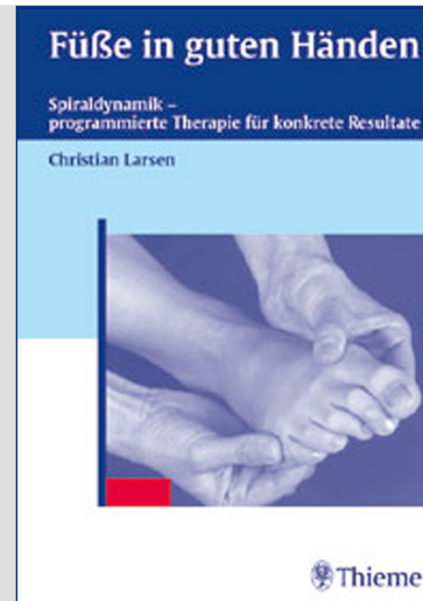
Newsletter / News

Courses

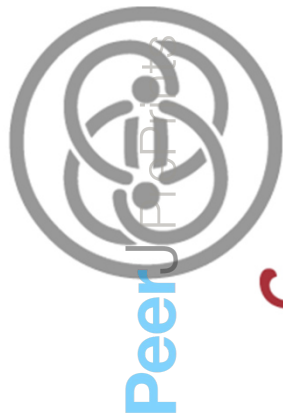
Facebook

[www.my-medibook.de](http://www.my-medibook.de)

# Books: Foot



© Thieme und Trias



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