Fascial Anatomy: cadaver dissection, molecular aspects, biomechanics and ultrasound imaging in living and application in movement.

WHERE: Institute of Human Anatomy, Department of Neuroscience + Centro Opera Onlus

WHEN: 23 - 27 September 2020

WHO MIGHT PARTICIPATE: medical doctors, physiotherapists, motor scientists, Pilates and Yoga advanced instructors, osteopaths and chiropractors

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Organized by Fisicamente Formazione srls in collaboration with University of Padova, Dep. Neuroscience, Insitute of Human Anatomy

AIMS of the course

Knowledge: Recent research highlights the important role of fasciae in myofascial pains and overuse syndromes. The aim of the course regards the achievement of knowledge about fascial anatomy and physiology for a better understanding of musculoskeletal pain and practical application in motor activities.

Skills: the participants will touch different fasciae and muscles of human body in order to understand their thickness, density, mechanical features. The achievement of this skill will permit a better adaption of various manual techniques during the treatment of patients.

Competences: The frontal lectures and dissections will suggest to the clinicians a new point of view of musculoskeletal system, focusing the attention into the superficial and deep fasciae. The different aspects of the human fasciae will be showed and discussed, with particular attention to their function.

Contents: hands-on fascia explorations on human cadavers; exploration of fasciae in living human with high resolution ultrasound; scientific lectures and practical application in movement

Methodologies
- Frontal lessons
- Dissection of fresh cadaver
- Evaluation of embalmed cadavers
- exploration of fasciae in living human bodies with high resolution ultrasound
- labs about cellular and molecular aspects of fasciae
- Practical movement exercises.

DESCRIPTION OF THE SCHOOL
This course of muscle-fascial dissection has been designed specifically to learn how to analyze and better understand the fasciae of the human body.
This course of muscle-fascial dissection and application in the motor science environment has been specifically designed to analyze and better understand the fasciae of the human body and the role of the fascia in movement.

Fasciae have been rediscovered in recent years because they seem to play a fundamental role in proprioception, in peripheral motor coordination and in the etiology of chronic muscular pain, but little is known about their anatomical, microscopic and biomechanical characteristics.

The course is organized by Fisicamente Formazione in collaboration with Institute of Anatomy of Padua University, that is internationally recognized as a reference center for the study of fascia and Prof. Carla Stecco is the author of the first photographic atlas on the fasciae (Functional atlas of the human fascial system, Elsevier, 2015), as well as coauthor of some books on the fascial manipulation and on the anatomy of fasciae.

This course will allow the trainees to deepen their knowledge of the fascia through theoretical lessons on the anatomy and physiology of the fascia, its interaction with the nervous system, with the underlying vessels and muscles. Ample space will be devoted to the dissection of the various districts, in order to understand which are actually the relationships and the dimensions of the anatomical structures, sometimes different from what is drawn in the atlases.

In addition, it will be investigated how the fascial dysfunctions can contribute to the development of conditions such as myofascial pain or movement disorders.

These dysfunctions can be assessed using the principles of tissue biomechanics and ultrasound imaging. In fact, an alteration of the quantity or quality of the components of the loose connective tissue that is located between the layers of the dense connective tissue of the deep fascia can change the viscosity and, therefore, the viscoelastic properties of the fascial tissue.

The viscoelasticity of the fascia includes various properties such as tone, elasticity and rigidity. The tone of the fascia represents the state of tension of the tissue at rest.
The elasticity (coefficient of the speed of change) is a characteristic that is defined by the ability of the fascia to regain its original length when it undergoes a deformation following the application of an external force. Finally, the stiffness is represented by the ability of the fascia to resist an external force. Quantitative measurements of these properties may support the diagnosis of fascial dysfunction and help monitor patient status. Ultrasound imaging is a "cross-sectional imaging" method based on sound waves reflected from the tissue interface. It is considered a non-invasive, safe and economical medical imaging method. It allows to analyze the fascia at high resolution and to measure the thickness of its various layers. This is the only imaging tool that allows the visualization of the fascial gliding with respect to another structure or between adjacent fascial layers. In this school we will deepen this imaging technique, with the ultimate goal to more accurately analyze the fascia dysfunctions to better apply every type of exercise and manual therapy.

Why integrate with a practical application to movement?

• Participants in the course are mainly motor activity teachers, physiotherapists or motor scientists expert in the rehabilitation environment

• Understand which components of the fascial system are fundamental in perception, transmission of forces, proprioception and motor coordination.

• Improve self-perception in movement, awareness and visualization in order to incorporate the concepts of anatomy, biomechanics and physiology of the fascial system.

• Practical movement exercises allow to improve the observation and evaluation skills of any dysfunctions of the fascial system.

• Optimize your ability to develop training or rehabilitation programs and your teaching and communication skills.

• Refine the understanding of the concepts of Sequence, Diagonal and Spiral, according to the principles of the Stick method.

Teachers

Carla Stecco
Anna Maria Vitali
Alessandro Pedrelli
Caterina Fede
Carmelo Pirri

PRICE (5 days)
Payment in one solution: € 1.070 incuse tax (€ 900 + tax) by 29 February 2020
Split payment : € 1.150,00 tax includes (€ 950,00 + tax)
First payment € 350,00 (€ 290 + tax) by 29 February + final payment € 800 (€ 660 + tax) by 15 july 2020