



MUSCULOSKELETAL ULTRASOUND IN SPORTS MEDICINE AND DEGENERATIVE DISEASES

Course information

Code number: SC0010
Title: **MUSCULOSKELETAL ULTRASOUND IN SPORTS MEDICINE
AND DEGENERATIVE DISEASES**
Faculty:
Venue: Panorama Hotel
Analipseos 26 Panorama,
Thessaloniki, PC 55236, Greece

Date: 23.01.27

Level of education: Advanced

Trainer: Professor Dr Thorsten Diekhoff, Radiologist

Contact information

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Course pre-requisites

MD Degree from an internationally approved Faculty of Medicine

Course description

Musculoskeletal ultrasound has become an integral tool in both sports and degenerative medicine because it provides dynamic, real-time evaluation of soft-tissue structures without exposing patients to ionizing radiation. In sports medicine, it is widely used for the diagnosis and monitoring of muscle injuries, tendon and ligament pathology, joint effusions, and guided therapeutic interventions. In degenerative conditions, ultrasound facilitates the assessment of osteoarthritis-related changes, tendinopathies, bursitis, synovitis, and enthesopathies, while also enabling image-guided procedures such as aspirations and injections. Its accessibility, relatively low cost, and ability to perform side-to-side comparisons during movement make ultrasound a valuable adjunct to clinical examination and other imaging modalities in the management of both athletic and age-related musculoskeletal disorders.

Learning objectives

- Understanding of the fundamental physics of ultrasonography
- Image optimization and operation, adjustment of ultrasound equipment
- Understanding of advanced cross sectional area ultrasound anatomy of the musculoskeletal system
- Identification of pathological findings in the most common sports injuries and degenerative pathologies, enhancing clinical assessment and diagnostic accuracy.
- Interpretation of normal/pathological findings in everyday clinical scenarios, with focus on three main joints: the wrist, the shoulder and the elbow.

Suggested Course Material

J. Katz, K. Brindle. MRI and Ultrasound in the Diagnosis and Management of Rheumatological Diseases. Annals of the New York Academy of Sciences, 2009

J. Jacobson. Fundamentals of Musculoskeletal Ultrasound (Fundamentals of Radiology). Elsevier 2025