



EFSUMB

EUROPEAN FEDERATION OF SOCIETIES FOR ULTRASOUND IN MEDICINE AND BIOLOGY
'Building a European Ultrasound Community'

MINIMUM TRAINING REQUIREMENTS FOR THE PRACTICE OF MEDICAL ULTRASOUND IN EUROPE

Appendix 2

Recommended Theory Syllabus

This basic theoretical training is a prerequisite to any practical training in ultrasound

Physics and Instrumentation

- The basic components of an ultrasound system
- Types of transducer and the production of ultrasound, with an emphasis on operator controlled variables
- An understanding of the frequencies used in medical ultrasound and the effect on image quality and penetration
- The interaction of ultrasound with tissue including biological effects
- The safety of ultrasound and of ultrasound contrast agents
- The basic principles of real time and Doppler ultrasound including colour flow and power Doppler
- The recognition and explanation of common artefacts
- Image recording systems

Ultrasound Techniques

- Patient information and preparation
- Indications for examinations
- Relevance of ultrasound to other imaging modalities
- The influence of ultrasound results on the need for other
- Scanning techniques including the use of spectral Doppler and colour Doppler

Administration

- Image recording
- Image storing and filing
- Reporting
- Medico-legal aspects – outlining the responsibility to practice within specific levels of competence and the requirements for training
- Consent
- The value and role of departmental protocols in determining the appropriate use of ultrasound

The Minimum Training Recommendations for the Practice of Medical Ultrasound were published under the EFSUMB Newsletter section in the *Ultraschall in der Medizin/European Journal of Ultrasound*, Volume 27, issue 1 February 2006 page 79-105.