



Foundation Skills for MSK Ultrasound Course



Programme Director.

Mr Stewart Kerr

Advanced Practice Physiotherapist
Musculoskeletal Sonographer
Injection Therapist

Physiotherapy (MSc), Sport & Exercise Science (BSc Hons), Post Graduate Certificate in Medical Ultrasound, Post Graduate Diploma in Musculoskeletal Injection Therapy.

Faculty:

Mr Douglas OGG

Course Summary

This course is aimed at developing the foundation knowledge and skills that underpin the use of ultrasound for examination of musculoskeletal structures. It is intended for clinicians and practitioners with little or no previous ultrasound scanning experience or understanding of the physics and controls of medical ultrasound. The course does not culminate in an exam or any form of educational or competency assessment but has been independently assessed CPD accreditation.

The format is a home-based programme of instruction and practical assignments facilitated by provision of an appropriate ultrasound scanner to each delegate. The interactive video conference sessions and accompanying practice exercises have been specifically designed to develop a foundation of understanding of the physics and principles of scanning and its application to guide the identification and assessment of musculoskeletal structures.

The course is conducted over 4 weeks.

All delegates are sent an Orca POD Toolbox containing a Sonon 300L portable ultrasound, a gel phantom, ultrasound gel and clinical wipes all of which are provided for the duration of the course. The POD Toolbox incorporates all the elements necessary to enable the progressive acquisition of knowledge and skills through home-based practice. The teaching programme is delivered by a combination of interactive lectures and practice exercises that will equip delegates with the essential cognitive skills necessary to begin incorporating ultrasound imaging guidance into their daily clinical management.

There is an assignment at the end of each session which helps the delegates to revise the concepts learnt during each session and to provide a framework for practising those skills.

Capacity is limited to 10 – 12 delegates per course

Course Objectives:

- To understand how an ultrasound image is created – the Physics of Ultrasound
- To be able to Identify basic tissue structure patterns using ultrasound
- To demonstrate and use the fundamental scanning techniques used to identify musculoskeletal anatomy
- Observe and demonstrate how to move the probe using probe handling techniques to scan structures
- Practice the fundamental scanning techniques used to identify musculoskeletal anatomy

PLEASE NOTE: DELEGATES SHOULD NOT EXPECT TO BE COMPETENT IN ULTRASOUND AT THE END OF THE COURSE.

What's Included?

- Each delegate has their own POD Toolbox for the duration of the course. This contains a Sonon 300L ultrasound system and gel phantom. Ultrasound gel and wipes are also included.
- 4 x weekly 2hr live teaching sessions with lectures, demonstrations, and interactive guided scanning practice.
- Weekly homework assignment with feedback to guide practice.
- CPD certificate upon completion.

Course Program

Week 1 session 1

Principles of scanning

19:00 -19:15	Welcome and introduction	Stewart Kerr and Douglas Ogg
19:15-19:45	Basic Physics of Ultrasound Probe orientation,	Douglas Ogg
19:45-20:00	Break	
20:00 -20:20	alignment of probe with structure	Stewart Kerr and Douglas Ogg
20:20-20:30	Supervised practice session on gel phantom	Stewart Kerr
20:30-20:50	Scanning the patella tendon – live demonstration and supervised practice	Stewart Kerr
20:50-21:00	Q&A	Stewart Kerr and Douglas Ogg

Week 2 session 2

Normal Appearance of structures and developing probe skills

19:00 -19:15	Welcome and introduction	Stewart Kerr and Douglas Ogg
19:15-19:45	Review of session 1 and assignments	Stewart Kerr
19:45-20:00	Break	
20:00 -20:20	Presentation: Probe skills 2	Stewart Kerr
20:20-20:30	normal appearance of MSK tissues (muscle, bone, tendon and nerve)	Stewart Kerr
20:30-20:50	Practical	Stewart Kerr and Douglas Ogg
20:50-21:00	Q&A	Stewart Kerr and Douglas Ogg

Week 3 session 3

Scanning on smaller structures and a joint

19:00 -19:15	Review of Exercises from session 2	Stewart Kerr
19:15-19:45	intro and Practical -consolidate and develop key probe skills on a smaller structure	Stewart Kerr
19:45-20:00	Break	
20:00 -20:20	Continue: consolidate and develop key probe skills on a smaller structure	Stewart Kerr
20:20-20:30	Normal appearance of a typical synovial joint – key tips for scanning	Stewart Kerr
20:30-20:50	Demonstration and supervised practice	Stewart Kerr and Douglas Ogg
20:50-21:00	Q&A	Stewart Kerr and Douglas Ogg

Week 4 session 4

Normal Appearance of structures and developing probe skills

19:00 -19:30	Review of exercises from session 3	Stewart Kerr and Douglas Ogg
19:30-19:45	Interactive Discussion review of skills learnt	Stewart Kerr
19:45-20:00	Break	
20:00 -20:30	Next steps in Ultrasound qualification – CASE accredited courses; PgCert, sources of information FSEM, CSP, POC Ultrasound	Stewart Kerr and Douglas Ogg
20:30-20:40	Considerations for devices- requirements, infection control, safety, SOP	Stewart Kerr
20:40-21:00	Whistle stop pathologies to whet your appetite to continue	Stewart Kerr
20:50-21:00	Q&A	Stewart Kerr and Douglas Ogg



Mr Stewart Kerr

Advanced Practice Physiotherapist
Musculoskeletal Sonographer
Injection Therapist

Trained as a Physiotherapist, Sonographer and Injection Therapist, Stewart specialises in diagnostic ultrasound scanning and ultrasound-guided injections of the upper and lower limbs. Combining his skills, he can provide a specialised service involving detailed clinical examination, ultrasound scanning, joint and soft-tissue injections and rehabilitation advice for joint, soft tissue and nerve conditions of the upper and lower limbs.

Stewart holds degrees in Sport & Exercise Science (BSc Hons) and Physiotherapy (MSc) as well as obtaining a Post Graduate Certificate in Medical Ultrasound and a Post Graduate Diploma in Musculoskeletal Injection Therapy. As a Physiotherapist of over 13 years, he commonly sees both simple and complex conditions of the upper and lower limbs in his practise. He has had a longstanding sub-specialist interest in shoulder problems and continues to enjoy this aspect of his clinical work.

Stewart is the Clinical Director at Life Fit Wellness and enjoys teaching Nationally on ultrasound education. As a former international badminton player, he is delighted to be involved with the Badminton World Federation Research Commission, where he is actively involved in injury prevention research.

Publications

Kaldau, Niels Christian; Kerr, Stewart; McCaig, Steve; Holmich, Per.

Training and injuries among world elite junior badminton players – Identifying the problems
Asia-Pacific Journal of Sports Medicine, Arthroscopy, Rehabilitation and Technology: October 2021 – Volume 26 – pp. 21-26. <https://www.sciencedirect.com/science/article/pii/S2214687321000194>

Bradley, John; Kerr, Stewart; Bowmaker, David; Gomez, Jean-Francois

A Swim-Specific Shoulder Strength and Conditioning Program for Front Crawl Swimmers
Strength & Conditioning Journal: August 2019 – Volume 41 – Issue 4 – pp. 1–17.
https://journals.lww.com/nscascj/Abstract/2019/08000/A_Swim_Specific_Shoulder_Strength_and_Conditioning.1.aspx

Bradley, John; Kerr, Stewart; Bowmaker, David; Gomez, Jean-Francois.

Review of Shoulder Injuries and Shoulder Problems in Competitive Swimmers.
American Journal of Sports Science and Medicine: 2016 – Vol. 4, no. 3 – pp. 57-73.
<http://pubs.sciepub.com/ajssm/4/3/1/index.htm>



Mr Douglas Ogg

Director Orca Medical Ltd.
Lecturer on underlying physical principles of ultrasound

BSc Comparative Physiology (1983), MSc Information Science (1984), Medical device industry 1985-present. Invited lecturer on numerous programs teaching underlying physical principles of ultrasound and optical technologies

Technology application expertise specialising in ultrasound imaging, endoscopy, and minimally invasive therapies. Involved from the industry side in the development and adoption into clinical use of various image guided applications including Endoscopic Ultrasound (EUS) – guided FNA, Endobronchial Ultrasound (EBUS) – guided FNA, Laser fetoscopy for treatment of Twin-Twin Transfusion syndrome (named author on first report of use), Interstitial image guided laser therapies, HIFU for treatment of prostate ca. Member of technical application teams at Olympus leading introduction of Narrow Band Imaging into gastroenterology, urology, and surgery.

Reviews:

I am thoroughly impressed at how the course was organised and delivered. Having the probe available to practice and handle outside of the course enables a much greater advancement in skills than would have been achieved in a face-to-face course. I hope the market continues to demand online courses as how you have organised and delivered it has been superb. I will be highly recommending you to my SEM colleagues. Thank you so much for giving me a good starting ground in MSK ultrasound.

Lisa 2022 course

“I really enjoyed the course, incredibly informative and great to practice live and throughout the week with the assignments.

I felt more confident each week as the course went on and is definitely something I’d like to continue to develop.

The course leaders/lecturers were great and provided huge insight and appreciated that we were learners and the right level of difficulty. Admin wise great communication throughout organised and efficient.

Overall fantastic course and experience would highly recommend to anyone.”

Ashleigh 2021 course

How useful is it to have an ultrasound to practice with – “Very useful “

Fran, 2021 course

“Thoroughly enjoyable course”

Matthew 2021

“Very organised. I would highly recommend Orca Medical and both tutors. “

Becky 2022 course

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