

# Ultrasound in Sports Medicine

APRIL 12, 2015 BY [SPORTINGJIM \(HTTP://CJSMBLOG.COM/AUTHOR/SPORTINGJIM/\)](http://cjsmblog.com/author/sportingjim/)  
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(<http://www.ecosep.eu/en/dawnbio>)

Dawn Thompson, MD using the sports med doc's 'stethoscope'

The subject of 'sports' or 'musculoskeletal' (MSK) ultrasound in sports medicine is one of the hot topics in our profession....all around the globe.

It's been a particular focus here at CJSM since the beginning of the year, when we published two important documents about the subject in the January 2015 issue: [the AMSSM Position Statement on](#)

[Interventional Musculoskeletal Ultrasound in Sports Medicine](#)

([http://journals.lww.com/cjsportsmed/Fulltext/2015/01000/American\\_Medical\\_Society\\_for\\_Spor](http://journals.lww.com/cjsportsmed/Fulltext/2015/01000/American_Medical_Society_for_Spor) and [the AMSSM Recommended Sports Ultrasound Curriculum for Sports Medicine Fellowships](#)

([http://journals.lww.com/cjsportsmed/Fulltext/2015/01000/American\\_Medical\\_Society\\_for\\_Spor](http://journals.lww.com/cjsportsmed/Fulltext/2015/01000/American_Medical_Society_for_Spor)

One of the more popular CJSM podcasts we've ever produced was [the interview I conducted with the lead author of those statements, Jonathan Finnoff](#)

(<http://journals.lww.com/cjsportsmed/pages/podcastepisodes.aspx?podcastid=1>), with whom I'm looking forward to catching up at [the AMSSM annual meeting taking place this week in Florida](#) (<http://cjsmblog.com/2015/04/05/the-2015-meeting-of-the-american-society-for-sports-medicine/>).

The issue of ultrasound in sports medicine is not of interest uniquely to Americans, however. And so I reached out to our newest editorial board member, [Junior Associate Editor Dawn Thompson](#) (<https://twitter.com/Dawnuff>), from the UK, for her perspective from 'across the pond.'

Dr. Thompson, as well as being a new member of the CJSM Editorial Board, is a member of the European College of Sports Medicine and Exercise Physicians (ECOSEP) Junior Doctors Committee (<http://www.ecosep.eu/Junior-Doctors-Committee>) and a fine writer. You can expect more guest blog posts coming from here, I'm sure of that.

Thanks Dawn for the post. And I hope soon to see many of you—reading this post, checking out the position statements, and listening to the podcast—in Florida or elsewhere!

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*Dawn Thompson* (<http://www.ecosep.eu/en/dawnbio>)

As a newly qualified doctor interested in pursuing a career in the increasingly popular and competitive field of Sports and Exercise Medicine (SEM) I find myself faced with the same decisions and questions I'm sure many of my peers are also troubling over. For any aspiring SEM doctor what is the best route into the specialty? The options are fairly endless: General Practice, Emergency Medicine, Orthopaedics or even General Medicine seem to be on the cards. Should I complete any post graduate course or qualifications and if so which? And of course the holy grail of any individual lusting over a career in SEM – how do I get practical hands on experience with a sports team or professional athletes?!

Whilst I continue to ponder over these questions one thing that has been repeatedly highlighted to me during work experience, conferences and discussions with specialists in the field is the importance of musculoskeletal (MSK) ultrasound in SEM. It has been said that the ultrasound probe should be considered the sports physician's stethoscope, and I have witnessed firsthand, the benefit of using ultrasound as an extension of a thorough history taking and clinical examination in order to confirm a diagnosis and provide a management plan during the initial consultation.<sup>1</sup>

Recently the American Medical Society for Sports Medicine and the Faculty of Sports and Exercise Medicine (FSEM) in the UK have both published a curriculum and guidelines on the use of ultrasound by sports medicine practitioners.<sup>2,3</sup> These outline the core skills and competencies required for a sports medicine trainee to be considered proficient in MSK (Sports) Ultrasound. Both curricula outline the ideal framework in which to obtain these competencies – utilising a combination of didactic instructional sessions, didactic practical sessions with a mentor and mentored clinical experience. Both provide a comprehensive list of skills and appropriate evidence that should be collected. Both recommend for those interested in obtaining skills in interventional ultrasound that the trainee should initially gain experience on cadaveric models or, where not available, turkey breasts, pig feet/legs or phantom models, before moving on to real life patients.

However, challenges do exist for trainees wishing to gain experience in the use of MSK Ultrasound, and one of the key considerations is how to obtain supervised practical experience and where in the training programme this type of skill is best and most appropriately acquired.

On performing a quick Google search it is clear that there are a number of training courses available to trainees wishing to gain MSK ultrasound experience. For example the Centre for Ultrasound Studies in Bournemouth, UK, offers a 2 day seminar course which is supplemented by 6 one-day workshops, in which candidates can gain hands on experience of imaging

subjects with both normal anatomy and clear pathology.<sup>4</sup> Furthermore FSEM will this year be commencing a new DOPS scheme for doctors with SEM experience or on the specialty training register and who have undertaken MSK ultrasound courses or obtained other suitable clinical experience, to attend and be examined on their ultrasound abilities.<sup>3</sup> These types of courses and examinations may be an excellent introduction to MSK ultrasound imaging. However without the opportunity to regularly practice under the watchful eye of an MSK mentor and access to patients and ultrasound machines, it is likely that these competencies may be lost. As such I can't help but feel that until enrolled on an official SEM training programme with regular access to patients and also an ultrasound machine, the potential benefits of these courses may not be realised.

Interestingly, in the US between 2000 and 2009 there was a 71.7% increase in the use of MSK ultrasound studies, with many of these performed by non-radiologists.<sup>5</sup> The Royal College of Radiologists has been reported to recognise that the training of SEM physicians can help facilitate clinical decisions, decrease demand on radiology departments and reduce the number of patient visits by offering one stop clinics. Despite the benefits I do wonder whether there may be some reluctance by radiologists to actively encourage acquirement of skills in MSK ultrasound by non-radiologists, who could be seen to be encroaching on their specialty. For trainees working in a specialist SEM department with access to an ultrasound machine and a keen mentor this may not pose too much of a problem; however for those earlier in their careers hoping to get more involved in imaging it may just be another barrier to gaining hands on experience of MSK ultrasound.

In summary, whilst I still feel that developing skills in MSK ultrasound is key for anyone interested in SEM and something I intend to pursue in the future, for now—and at the early stages of a doctor's career—gaining experience of SEM in other ways first is in my opinion probably more sensible. However, as you can see in the attached photo of myself and a fellow A+E colleague, that won't stop me having a quick play during those rare yet cherished 'quiet' moments at work, where I'm not busy using my more conventional stethoscope in the diagnosis of non-sports related patients

## References

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I work at Nationwide Children's Hospital in Columbus, Ohio USA, where I am a specialist in pediatric sports medicine. My academic appointment as an Assistant Professor of Medicine is through Ohio State University. I am a public health advocate for kids' health and safety. I am also the Emerging Media Editor for the Clinical Journal of Sport Medicine.

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