



# First Hand EXPERIENCE

## Mr Lennard Funk

Consultant Shoulder & Upper Limb Surgeon  
Honorary Lecturer, Salford Royal Hospitals,  
Manchester, UK.

## 'One-stop clinic'

*As a consultant orthopaedic surgeon specialising in shoulder and elbow surgery, Mr Lennard Funk is using ultrasound scanning during his clinical examinations as a part of his 'one-stop clinic' approach by offering patients an immediate diagnosis at the first presentation for a quicker treatment and recovery. A leading luminary in the field of shoulder surgery, Mr Funk is based at Salford Royal Hospitals and is an honorary lecturer at the University of Manchester.*

He also runs the Manchester Sports Medicine Clinic together with a sports physician and two other orthopaedic surgeons, each with sub-specialisation in different areas. "I see around ten to fifteen patients each day," explained Mr Funk. "The type of injuries I see most often are impact and contact injuries of the shoulder, for example, in rugby players, but I also see a lot of chronic shoulder injuries, specifically in swimmers and overhead athletes, such as tennis and badminton players. I also have an interest in paralympians and wheelchair athletes, who get a lot of shoulder injuries."

Mr Funk frequently uses the SonoSite MicroMaxx® hand-carried ultrasound scanning system to diagnose his patients: "I use ultrasound scanning simply as an extension of the clinical examination. Not all patients get scanned – it depends on the injury. I do what I call a surgical scan, to help me plan my management and surgery of the patient by checking if there is, for example, a tear in the rotator cuff,

and how big the tear is. If I need additional information, I would then send the patient to a musculoskeletal radiologist who will be able to provide that information with their higher resolution equipment and greater specialist skills."

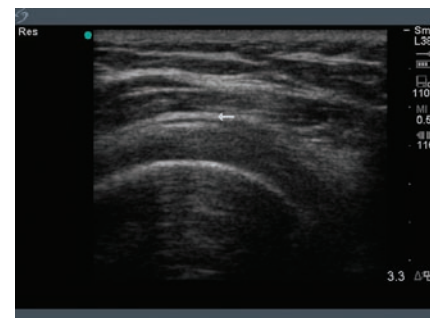
As a shoulder specialist, Mr Funk often scans his patients, specifically looking for pathology of the rotator cuff, the sleeve of muscle that surrounds the shoulder joint and is the prime mover for the shoulder. "It's very easy to spot a tear in the rotator cuff with ultrasound, and the scan adds just three to five minutes to the examination. This sort of immediate diagnosis is particularly useful for athletes with an acute injury, because their therapists and the team want to know the severity of the injury and the potential significant effect this might have on their return to sport."

**"Another huge advantage of the MicroMaxx system is the ability to save short video clips and keep them as files on a PC."**

Mr Funk continued, "The immediate diagnosis you get from ultrasound scanning has big advantages on the NHS side too, as it can reduce the patients' time to treatment quite significantly. It completely cuts out the whole process where the patient would visit the clinic for us to make a clinical diagnosis and send them for a scan, wait for the scan result, call the patient back to tell them the result, before finally putting the patient on a waiting list for surgery or other



Full Thickness Supraspinatus Rotator Cuff Tear captured with the SonoSite TITAN® system



Subacromial Impingement – MicroMaxx arrow showing fluid in subacromial bursa and thickened bursal lining

Images reproduced with permission from [www.shoulderdoc.co.uk](http://www.shoulderdoc.co.uk)

definitive treatment. You don't have the cost of a radiology report or the cost to the patient of taking additional days off work, which is a significant benefit. With many injuries, an earlier diagnosis and treatment correlates with earlier and better recovery, and getting the patient back to normal activity sooner. For example, with rotator cuff tears, we know that tears only get bigger with time, so the longer a patient is waiting for treatment, the longer they may take to recover, as well as possibly requiring a more difficult surgery. According to three years' worth of data in a recent audit at our practice, the accuracy of diagnosis of a rotator cuff tear was about 95 per cent."

*continued*



"It is also very useful for diagnosing conditions such as calcific tendonitis, where calcium salt deposits collect within the rotator cuff tendons. One can then treat the condition using ultrasound-guided barbotage, sucking the deposits out through a needle while scanning the area by ultrasound. I personally perform ultrasound-guided injections regularly to treat inflammation in and around the shoulder joint. There is a lot of literature on the accuracy of blind injections compared to ultrasound-guided injections (1, 2), and there is now a big move towards doing more and more injections under ultrasound guidance."

Mr Funk has been using portable ultrasound systems for several years, and has built up a wealth of experience on their use. "I've used other SonoSite systems – the 180PLUS™ system, the TITAN® system – but I use the MicroMaxx system now, which has very good image quality. It has excellent ease of use, because the design and layout has not been significantly changed from the TITAN system, which was fantastic already. Another huge advantage of the MicroMaxx system is the ability to save

short video clips and keep them as files on a PC. I believe that the difference between SonoSite systems and other portable systems on the market is that SonoSite has developed an ultrasound machine with laptop and computer capabilities, whereas the others are laptops with ultrasound capabilities. Also, the SonoSite systems are designed as portable units from the outset, having originally been developed for field use in the military, so they are very resilient."

Through presentations and courses, Mr Funk is keen to share his expertise in the use of ultrasound scanning in orthopaedics. "I present lectures on sports injuries of the shoulder, shoulder ultrasound, and surface replacement of the shoulder, and I also perform live surgery, both nationally and internationally. I am also involved in running courses on ultrasound because I have attended courses myself, and I believe it is essential for anyone considering using ultrasound in their work. I was fortunate to have been trained by the Reading Shoulder Unit to carry out office ultrasound at a time when it was quite unique for non-radiologists to use ultrasound and the only courses that were available to me were general musculoskeletal courses. Now, a lot of people want to scan areas of specific interest, so we have developed, together with SonoSite, the shoulder ultrasound courses. We use the MicroMaxx system in our basic and advanced courses, and the good resolution means that it is ideal from a training/teaching point of view. All the courses are designed for participants to gain hands-on experience, with plenty of opportunity to practice using the instruments and get a feel for the procedures."

*Mr Funk provides consulting services to SonoSite.*

## References

1. Chen, MJ; Lew, HL; Hsu, TC; Tsai, WC; Lin, WC; Tang, SF; Lee, YC; Hsu, RC; Chen, CP. (2006) Ultrasound-guided shoulder injections in the treatment of subacromial bursitis. *Am J Phys Med Rehabil.* 85(1): 31-35.
2. Naredo, E; Cabero, F; Beneyto, P; Cruz, A; Mondejar, B; Uson, J; Palop, MJ; Crespo, M. (2004) A randomized comparative study of short term response to blind injection versus sonographic-guided injection of local corticosteroids in patients with painful shoulder. *J Rheumatol.* 31(2): 308-314.

Ultrasound training courses available, visit [www.seec-education.com](http://www.seec-education.com) to register.



[www.sonosite.com](http://www.sonosite.com)

**SonoSite**  
The World Leader in  
Hand-Carried Ultrasound

### INTERNATIONAL HEADQUARTERS

**SonoSite Ltd**, Alexander House, 40A Wilbury Way,  
Hitchin, Herts SG4 0AP, United Kingdom  
Tel: +44 (0)1462 444800 Fax: +44 (0)1462 444801  
E-mail: [europa@sonosite.com](mailto:europa@sonosite.com)

### WORLDWIDE HEADQUARTERS

**SonoSite, Inc.**, 21919 30th Drive SE, Bothell, WA 98021-3904  
Tel: +1 (425) 951-1200 or +1 (877) 657-8050 Fax: +1 (425) 951-6800  
E-mail: [admin@sonosite.com](mailto:admin@sonosite.com)

### SonoSite Worldwide Offices

SonoSite Australasia Pty Ltd – Australia	1-300-663-516
– New Zealand	0-800-888-204
SonoSite KK - Japan	81-3-5304-5337
SonoSite SARL - France	31-1-69-18-96-30
SonoSite - Germany	49-(0) 91-31-97-79-29-0
SonoSite - India Liaison Office	91-124-4028888
SonoSite Iberica SL - Spain	34-91-640-49-11
SonoSite Ltd - China - Shanghai	86-21-523-966-93
SonoSite Canada Inc. - Canada	1-888-554-5502

> An article by Mr Funk on his experience of ultrasound scanning can be read online ([www.shoulderdoc.co.uk/education/article.asp?article=57](http://www.shoulderdoc.co.uk/education/article.asp?article=57)). Mr Funk is responsible for the ShoulderDoc website ([www.shoulderdoc.co.uk](http://www.shoulderdoc.co.uk)), which offers information on shoulder and elbow problems for both patients and professionals, and contains useful information on ultrasound use. Mr Funk is also founder of the SonoSite Users Group ([www.sonositeusers.com](http://www.sonositeusers.com)).