



THE SOCIETY FOR
VASCULAR TECHNOLOGY OF
GREAT BRITAIN AND IRELAND

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Suggestions for improvement of this guideline are welcome and should be sent to the
Chair of the PSC
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WRULD Guidelines

Introduction

“Work related upper limb disorders” (WRULD) is a term describing upper-limb musculoskeletal problems which are related to the work of the individual. The term “musculoskeletal disorders” (MSDs) is a more general term including problems with the whole skeletal system. This document provides SVT members with an overview of current knowledge, advice and links to published literature on this subject.

How big is this problem?

In 2021/2022 there were a total of 477,000 work related musculoskeletal disorder cases (new or long standing), 139,000 workers suffering with a new case of work-related musculoskeletal disorder and 7.3million working days lost.

Work related musculoskeletal disorders (WRMSDs) account for 27% of all work related ill health and 25% of all working days lost due to work related ill health. Human Health/social work have the highest rate of ill health compared to other industries¹.

Employees whose roles involve:

- Fixed or constrained positions
- Repetitive movements
- Concentrated force on small parts of the body (e.g. hand or wrist)
- A pace of work which does not allow for sufficient recovery between movements

have an increased association with WRMSDs¹. Various psychological factors, including organisational culture, may also contribute to the creation of conditions for WRMSDs to occur. WRMSDs commonly occur due to a combination of factors.

Is it relevant for Vascular Scientists?

Healthcare professionals using ultrasound equipment have a high prevalence of MSDs with various studies revealing incidences of >80%^{2,3}. Vascular sonographers are particularly prone to MSDs, due to their requirement to maintain awkward positions, often twisting to squeeze the limb being assessed, and there is a frequent requirement to scan patient whilst standing, and also standing patients whilst kneeling on the floor. In addition, vascular scans often have the longest scan times as compared to other ultrasound examinations²

Is there any guidance about minimising MSDs / WRULD?

The Society of Radiographers (SoR) has published various documents giving advice on the prevention of MSDs^{3,6,7}. The Health and Safety Executive's (HSE) guidance on Display Screen Equipment regulations⁸ is another useful resource.

The Health and Safety Executive (HSE) recommend a 7 stage approach for managing MSDs⁴ :

- Understand the issues and commit to action
- Create the right organisational structure
- Risk assess MSDs in your workplace
- Reduce the risk of MSDs
- Educate and inform your workforce
- Manage any episodes
- Regularly check the effectiveness of your controls.

In addition, the HSE suggests the main areas to concentrate on are risk assessment and control² and suggest that all Sonography modalities coordinate their efforts across Trusts. Increased sonographer control of their work, efforts to balance workload to enable rest breaks, and changes to the physical environment are encouraged as effective controls. Ambidextrous scanning and effective use of voice activated systems should also be considered as a priority.

The HSE report into Risk Management of MSDs in Sonography looked at awareness of MSD risks amongst the Sonography workforce and found it to be generally high, but interestingly the Vascular and Cardiac teams were less aware of the SoR guidance as compared to other Sonography professions.²

The following are recommended Society of Vascular Technology guidelines to minimise the risk of MSDs (not legal requirements):

- 20% of contracted hours away from scanning activities
- Mixed scanning lists
- Ergonomic and Risk assessments of working environment to be carried out

Are all Vascular Labs the same?

In 2011, the SVT invited members to complete a survey to investigate the prevalence of MSDs amongst Vascular Scientists in Great Britain and Ireland. Part 1 of the survey was completed by service heads who answered questions about their departments in terms of staff numbers and various aspects of service organisation. Part 1 demonstrated widely varying workplaces with some single-handed units and some with >8 staff members; the numbers of scans per experienced member of staff in a typical day varied between 6 and 18; and time allocations per scan type also widely ranged with carotid scans between 10 to 30 minutes, and bilateral venous reflux between 20 and 60 minutes⁵.

A further member survey was conducted by the SVT in 2022 resulting in the SVT publishing a Recommended Scan Time Guidance document.^{9,10}

Legal requirements.

The legal requirements associated with work breaks under the Working time Regulations are given in the HSE document which can be accessed via this link:

<http://www.hse.gov.uk/contact/faqs/workingtimedirective.htm>.

Employers must protect the health and safety of their employees and others who may be affected and prepare appropriate policy. Employees have a responsibility to take care of their own health and safety and that of others and to co-operate with their employer. Trusts and employees have mandatory requirements for training e.g. infection control and health and safety, and completion of these requirements can be used as a useful break from routine activities. Time for continued professional development is recommended, although not mandatory, and can also be used by departments to give sonographers a break from ultrasound scanning.

Anywhere else to look for advice?

The majority of employees will have access to Occupational Health, who can advise and arrange access to physiotherapy treatments etc. Many Trusts will also have a back-care team who may be able to observe and advise sonographers on adaptations to their practice which may prevent or alleviate MSDs. These groups of professionals may also be a useful resource where evidence is required to purchase additional equipment or adapt to workload expectations.

Exercises and stretching are recognised as important tools to reduce and relieve muscle stress³ and their use may be further optimised with the assistance of occupational health or physiotherapy advice. ² A useful set of exercises are given in the SoR document “Prevention of Work-Related Musculo-Skeletal Disorders in Sonography” ³

How can we Vascular Scientists apply this advice?

This document was not designed to be a comprehensive manual in how to reduce or eliminate MSDs in the Vascular workplace, but instead, to be a useful pointer towards the advice and guidance which

is widely available on this subject. However, it may be helpful to consider the following list of topics when assessing and addressing MSD/WRULD in your own workplace:

Awareness

- Do you know which scanning practices put you at risk of MSD?
- Perhaps discussion of MSD could be included in regular meetings
- Are you aware of the professional guidance? – may be useful if approval for additional expenditure is required

Risk Assessment

- Have you thought of all the risks and addressed each in turn?
- Are your control measures appropriate? – have you checked them with Occupational Health/ Back-Care?
- Could you arrange for Back-Care / Ergonomics advisors to observe some scans and advise?
- A robust risk / control assessment will be a persuasive tool when you need financial approval
- Would peer observation be useful to the risk assessment process?

Minimise the Risk

- Never skimp time spent on optimising patient position
- Consider: ambidextrous scanning; mixed lists; regular tasks away from scanning
- Make ergonomics a top priority when assessing & replacing ultrasound scanners
- Would upgraded couches / scanning stools or chairs improve things for a relatively small outlay?
- Use of exercises – do you have a poster in your staff rest area?
- Could you arrange for regular sports massage for your team?
- Does your workstation meet Display Screen Equipment requirements?
- Could you use dictation?
- Does local staff induction and/or appraisal include discussion of MSD?
- Could an assistant help with patient manual handling tasks?
- Could you change your scanning room layout?
- Do you feel in control of your worklist? Could referral verification help with this?
- Could you allocate regular time for duties away from scanning to allow audit/QA/service development duties to be addressed?

Conclusions and further actions

In summary, we need to be mindful of the incidence of MSDs and how they impact on us as individuals and in teams, and looking for trends that may indicate organisational issues which could be improved. We need to increase our awareness of this subject and take individual and collective action to ensure the risks are minimised.

Acknowledgements

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References & Links to useful information

- 1 "Health and safety at Work, Summary statistics for Great Britain 2022."
[Health and safety statistics 2022 \(hse.gov.uk\)](https://www.hse.gov.uk/healthservices/sonography-work-inhealthcare.htm)
- 2 "Risk Management of Musculoskeletal Disorders in Sonography Work" , 2012. Health & Safety Executive. <http://www.hse.gov.uk/healthservices/sonography-work-inhealthcare.htm>
- 3 "Prevention of Work-related Musculo-skeletal Disorders in Sonography" , 2007.
https://www.sor.org/system/files/documentlibrary/public/sor_prevention_work_related_musculoskeletal.pdf
- 4"Upper limb disorders in the workplace" HSG60 (rev), 2002
<https://www.hse.gov.uk/pubns/books/hsg60.htm>
- 5 Repetitive Strain Injury (RSI) Survey 2011. Society for Vascular Technology of Great Britain and Ireland.. Final Report Part One November 2012. Oates, C.
<https://www.svtgbi.org.uk/professional-issues/>
- 6 "Industry Standards for the Prevention of Work Related Musculoskeletal Disorders in Sonography" , 2006. SoR
http://www.sor.org/sites/default/files/documentversions/sor_industrystandards_prevention_musculoskeletal.pdf
- 7 "Work Related Musculoskeletal Disorders (Sonographers), 3rd edition July 2019.
<https://www.sor.org/learning/document-library>
- 8 "Work with display screen equipment: Health and Safety (Display Screen Equipment) Regulations 1992 as amended by the Health and Safety (Miscellaneous Amendments) Regulations 2002" , 2003.<http://www.hse.gov.uk/pubns/books/l26.htm>
- 9 "Scan Time Guidance" Professional Standards Committee, Society for Vascular Technology of Great Britain and Ireland.. November 2022
[Quality and Safety | The Society for Vascular Technology \(svtgbi.org.uk\)](https://www.svtgbi.org.uk/professional-issues/rsi-working-in-vascular-ultrasound/)
<https://www.svtgbi.org.uk/professional-issues/rsi-working-in-vascular-ultrasound/>
- 10 Scan time guidance (Appendix 1) Professional Standards Committee, Society for Vascular Technology of Great Britain and Ireland.. November 2022
[Quality and Safety | The Society for Vascular Technology \(svtgbi.org.uk\)](https://www.svtgbi.org.uk/professional-issues/rsi-working-in-vascular-ultrasound/)
<https://www.svtgbi.org.uk/professional-issues/rsi-working-in-vascular-ultrasound/>
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