

2006 asa survey results

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Earlier this year the ASA collated the results of a two-part survey completed by members and designed by the ASA Occupational Health & Safety (OH&S) committee. This article will present the results of this survey as well as comments on the results by the committee.

Part 1 was designed to assess what effects, if any, the publishing of the 'Guidelines for Reducing Injuries to Sonographers/Sonologists' [1] (referred to in future as the guidelines) has had on the workplace. These guidelines were published by ASUM & ASA in the hope that the advice provided, if implemented in the workplace, would improve OH&S for sonographers/sonologists.

Part 2 was designed to assess the incidence and type of Work Related Musculoskeletal Disorders (WRMSD) among sonographers. A similar survey was conducted in 1998 and the results published as 'Occupational Health and Safety Update' [2]. Similar surveys have been conducted internationally and the results of these appear in table 1. This current survey was more extensive as it surveyed the disorders suffered by sonographers on their non-scanning side.

SDMS in USA	1997	81%
CSDMS in Canada	1997	84%
ASA in Australia	1999	95%
ASUM in NZ	2001	93%
SOR in UK	2002	96%

Table 1. International WRMSD survey results. (Sonographers who have suffered pain and/or discomfort since beginning to scan.) [2,3,4,5]

Of the surveys issued to ASA members 427 were returned representing 38% of the membership, which was a very good

response. The ASA OH&S committee would like to thank all the sonographers who made the effort and showed their dedication by returning the 96-question survey.

It is impossible to present all of the results in a single article. However, if you are interested in a specific aspect of the results please contact the ASA OH&S committee through the National Office.

Summary of the results of Part 1

The 'Guidelines for Reducing Injuries to Sonographers/Sonologists' [1] are available on the ASA website. If you are unfamiliar with these it is suggested that you review them in order to better understand the survey results. The guidelines are divided into equipment, administrative and work practice issues.

Equipment

- 48% of respondents were using ultrasound units purchased in the past three years and of these 58% said ergonomics was a deciding factor in purchasing a particular unit.
- The majority had a footrest and space under the keyboard for the operator's knees.
- Over 80% said the keyboard and controls were easy to operate and the monitor could be tilted but less than 50% used height adjustable keyboards and monitors.
- 65% replied the units were easy to move but only 28% had Safe Operating Procedures (SOPs) for doing so.
- 84% said the transducers were easy to change.
- 36% had installed a separate monitor for the patient to view during the examination.

- The majority responded that work areas had adequate-sized rooms, with good flooring, dimmable lighting and good ventilation.
- About 50% used rooms that could be configured to allow scanning with either hand although only 54% thought the area where they reported was ergonomically set up to allow the sonographers to vary their posture.
- The majority of respondents had fully adjustable couches (96% were height adjustable) and scanning chairs. However, only 40% of sonographers performing cardiac scans had couches with a cut-out section to improve access for some views.
- 99% of respondents adjusted equipment to suit the examination before starting the examination.

Administrative

- 66% thought they had adequate staff to meet the demands of the day but only 44% had some control over their workload and only 33% were able to control the mix of examinations they performed.
- With OH&S reporting and education, 91% had a system of reporting injuries at work with 80% having follow up of their reports. Unfortunately only 54% of sonographers reported their WRMSD to their employers with only 58% of these doing so in writing and only 25% claimed workers compensation for treatment of their WRMSD.
- 62% had discussed OH&S issues with their employers.
- 68% had attended education in OH&S issues in sonography with 77% of these provided by professional bodies and only 20% provided in the workplace.

Work practices

- 52% of sonographers worked part time.
- 84% reported they maintained a good posture whilst scanning.
- 56% reported they usually had a tea break, but for 80% this was less than 10 minutes. 94% usually got lunch, but 58% got less than 30 minutes.
- 70% routinely worked 3-4 hours without a break.

So have the guidelines helped sonographers?

- 98% of sonographers were aware of the guidelines and 90% had read them.
- 93% found the guidelines to be useful and 70% said they impacted on work practices.

Comments by the OH&S committee on Part 1

The vast majority of sonographers had read the 'Guidelines for Reducing Injuries for Sonographers/Sonologists' and thought them useful. The committee believes these guidelines have had a major impact on making sonographers' workplaces safer. Ultrasound units are being designed with improved ergonomics with the manufacturers having responded to sonographers' injury rates and the lobbying by professional bodies and individuals by improving the ergonomic design of the majority of their units. This, however, needs to continue. Over half of respondents thought ergonomics was a factor in the purchasing of new equipment so it is encouraging that sonographers and employers are concerned about the working environment.

The adjustability of the ultrasound unit and accessory equipment makes it possible to scan with improved posture. The OH&S committee recommends the use of an additional monitor in, for example, obstetric examinations so that the patient can view the images without the sonographer having to 'share' the main monitor.

A pleasing result was that virtually all respondents took the time to adjust their equipment prior to each examination as well as making the effort to maintain good

posture. These factors vastly improve ergonomics for sonographers. Maintaining a good posture improves core body strength and reduces fatigue, hence helping to reduce injuries.

Staffing levels reflect there are still not enough sonographers for the workload. This is a problem for all medical professions. What can be done about this? We need to train more sonographers, but this is for another discussion! Sonographers need to have control of their workload and especially the variety of examinations performed. This may be difficult in specialised practices where, because of the repetitive work, more frequent work breaks should be introduced.

The work break situation was interesting. Research into WRMSD has shown that regular, frequent work breaks is the major factor in reducing the incidence and severity of WRMSD as breaks allow fatigued muscles to relax [5,6,7]. Research also recommends job rotation to allow a variation in tasks as a method of avoiding or reducing overuse syndromes [5,6]. Sonographers must ensure that they have adequate work breaks and these must be taken before you start to hurt! The OH&S committee believes there is a need for a higher level of communication between sonographers, administration staff and employers to ensure adequate breaks are allocated.

Reporting and follow-up systems for injuries are in place in the majority of workplaces. However, all workplaces by law must have systems of reporting work-related injuries and all reports *must* be followed up. Workplaces without such systems are in breach of OH&S law. The level of OH&S education in the workplace is poor, a void fortunately filled by the professional bodies. All employers should provide education on OH&S issues: this is compulsory for large workplaces in most States. Sonographers, in view of the injury rate, need to make sure this includes education specifically related to sonography.

The next project of the OH&S committee is to produce a presentation for the ASA website where members will be able to gain access for their own ongoing education and also to train others.

Summary of the results of Part 2

The aim of Part 2 of the survey was to assess the incidence and type of work-related musculoskeletal disorders among sonographers.

Following are the comparison of survey results from 2006 and 1999 as reported in 'Occupational Health and Safety Update' [2]. It should be noted that some of the results are not directly comparable between the surveys as in the 2005 survey sonographers were asked to include symptoms on their non-scanning side. The non-scanning side was surveyed as there have been, over the years, many sonographers who have reported symptoms on this side. As it is not their dominant scanning arm employers and insurance companies have, on some occasions, refused to accept these injuries as work related.

Tables 2 and 3 present the survey results and comparison in the topics of pain and discomfort. In addition to this, 17% of sonographers describe symptoms in the non-scanning arm (excluding the shoulder). Other areas of pain and discomfort were hands, fingers, forearms, hips and legs, both scanning and to a lesser extent the non-scanning side.

	2006	1999
Suffered since scanning	93%	95.4%
Taken action to prevent	94%	57%
Still suffering	60%	80%

Table 2. Pain and discomfort.

	2006	1999
Shoulder (scanning)	82%	91%
Shoulder (non-scanning)	44%	N/A
Neck	75%	84%
Upper back	54%	73%
Lower back	49%	61%
Upper arm	43%	53%
Eyes	42%	59%

Table 3. Main areas of pain and discomfort.

Table 4 demonstrates the varying symptoms experienced by the respondents. Of the 24% who described their symptoms as constant pain, 23% had symptoms in the scanning shoulder, 17% in the neck and 8% in the non-scanning shoulder.

	2006	1999
Aching	79%	94%
Stiffness	42%	57%
Burning	29%	29%
Weakness	25%	30%
Constant pain	32%	n/a
Radiating pain	24%	n/a
Sharp pain	19%	36%
Tingling	18%	22%
Cramping	14%	30%
Numbness	12%	20%

Table 4. Descriptions of symptoms.

Pain and discomfort was found to be aggravated by many factors attributed to everyday work (table 5) and that symptoms interfered with many aspects of day-to-day life (table 6). Most sonographers reported that pain and discomfort was experienced late in the day, or in the evenings. Approximately 7% had pain during the night.

	2006	1999
Applying pressure	75%	90%
Arm abduction	64%	89%
Twisting neck and trunk	56%	88%
Holding the transducer	30%	89%
Assisting patient movement	28%	81%
Keyboard use and moving equipment	19%	77%

Table 5. Pain and discomfort were aggravated by many factors attributed to everyday work.

	2006	1999
Interfered with work	84%	80%
Interfered with other activities	80%	70%
Interfered with sleep	65%	n/a

Table 6. Pain and discomfort interfered with many aspects of the sonographer's life.

Many sonographers are managing their symptoms by introducing changes to their work practices and lifestyles (tables 7 and 8). Of those who responded to the survey, 87% reported their symptoms as improving with treatment but only 25% had complete resolution of their symptoms. The average time sonographers had suffered was three years and two months compared to four years and four months in 1999.

	2006	1999
Exercise and fitness program	58%	9%
Changing scanning techniques	40%	21%
Massage	40%	n/a
Physiotherapy	38%	n/a
Equipment changes	37%	6%*
Pain relief medication	30%	n/a
Reduced work hours	26%	7%*
*Not direct comparison		

Table 7. Changes introduced to reduce pain and discomfort suffered.

	2006	1999
Sought medical advice	66%	58%
Received treatment	61%	52%
Reasonable improvement	87%	77%
Treatment longer than 6mths	30%	23%
Time off work	30%	23%
Reduced hours of work	30%	7%

Table 8. What did sonographers do?

Table 9 demonstrates the type of support sonographers received regarding their injuries.

Comments by the OH&S committee on Part 2

So after all of this, is it getting any better? The incidence of workplace injuries is still unacceptably high and is of great concern to our profession. A lot of changes have been introduced into the workplace over recent years but there is virtually no change in the percentage of sonographers suffering pain and discomfort. The work of the sonographer is both physically and mentally taxing – maybe only by drastically changing our work practices will this

	2006	1999
Claimed workers compensation (WC)	25%	14%
WC liability accepted	85%	100%**
Work reorganised to comply with work restrictions	58%	n/a
Pressured to return to work early	27%	n/a
Support from employers	50%	n/a
Support from Supervisors	48%	n/a
Support from Colleagues	66%	n/a
Sympathy from WC consultant	65%	n/a
**8% accepted after appeal.		

Table 9. What support did sonographers receive?

injury rate improve. Although there were seven years between surveys there is a possibility that we are surveying the same sonographers. As commented on in the 1999 survey there is also a possibility that this survey is biased as the members of a professional body were surveyed.

The distribution and type of pain and discomfort has not significantly changed. Symptoms being suffered on the non-scanning side are very high (44% in the shoulder) and all but a few sonographers reported problems on their non-scanning side.

Work actions that aggravated injuries have changed significantly in the time between the compared surveys, as did the changes introduced by the sonographer to reduce injuries. The committee believes this is largely due to education on OH&S in sonography offered by professional bodies and the publishing of the 'Safe Scanning for Sonographers' and 'Posture is Important' posters by the ASA that are displayed in most ultrasound departments. These posters are readily available through the ASA National Office.

Changes such as exercise programs to reduce injuries demonstrated sonographers are implementing lifestyle changes to improve their fitness, enabling them to continue to work in the profession.

The support that injured sonographers receive in the workplace is appalling and many sonographers are not reporting their injuries. There are several reasons for this including: no definite injury date, no

specific incident causing the injury, lack (or perceived lack) of support in the workplace, the stigma attached to injuries and the general reluctance of sonographers to report their injuries. All injured sonographers deserve and need more support from their employers, supervisors and colleagues – you may need this support yourself one day!

The number of sonographers who have claimed workers compensation for their treatment is very low – 25%. In all States and Territories it is our right as employees (permanent, casual or contract) to be covered by workers compensation for treatment and time lost due to work-related injuries. To do this, the first step is for sonographers to report their injury in writing to their employers and consult a medical practitioner. The publishing of the results of this survey may encourage more sonographers to exercise this right.

Conclusion

This survey demonstrates that the guidelines have been of assistance to the majority of sonographers in their workplace. However, the incidence of workplace injuries is still unacceptably high.

It has also demonstrated that sonographers have poor control over their workload and, if injured, only half are receiving support from employers and supervisors. The level of support from colleagues is also poor

and the vast majority of sonographers are paying for their own rehabilitation.

Some sonographers have become actively involved in their own injury prevention as a result of OH&S education. It is most important that you are fit to work and, if you have an injury, that you report it and seek appropriate treatment early to have any hope of complete recovery

The ASA OH&S committee's message to take home from this survey is:

LOOK AFTER YOUR BODY
It is the only place you have to live.

Further information on OH&S issues is available on the ASA website or from the members of the ASA OH&S committee.

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