



Study shows alarming injury rate amongst ultrasonographers

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The final report of the BC Ultrasonographers' study reveals that 91% of survey respondents have experienced musculoskeletal pain and discomfort at some point during their sonography career.

The final results of the BC Ultrasonographers study are in and they present a disturbing picture of the dangers associated with sonography. The final report reveals that ninety one percent of survey respondents have experienced musculoskeletal pain and discomfort at some point during their sonography career.

One injury is one too many

The study of BC's sonographers was designed by a multidisciplinary group consisting of sonographers, employers, ergonomists, unions and professional associations. Of the 232 sonographers in BC, 211 (92 per cent) of them completed the survey.

A full sixty per cent of respondents reported having sought medical attention for complaints related to their work in sonography. A further 30 per cent of respondents reported experiencing pain but not seeking medical attention.

Twenty percent of respondents had filed claims with the WCB for pain related to their work. The rate of injury claims amongst all workers in BC is five percent. That means that sonographers are being injured at a rate which is four times greater than the provincial average.

Sonographers report that the areas of their bodies which are most at risk for injury are the shoulder (84%), neck (83%), upper back (77%), wrist (61%), lower back (58%), hand (56%), eyes (52%), and upper arm (50%). Severe symptoms were most likely to be reported in the shoulder, neck and upper back.

The activities that were most likely to be identified as triggering or aggravating symptoms included shoulder abduction, the application of sustained pressure with the transducer, and the sustained or repetitive twisting of the neck and trunk. In terms of the equipment they used, the Acuson machine was identified as the least comfortable while the ATL machine was identified as the most comfortable.

The report concluded:

It should be emphasised that the prevalence rates are self reported and the investigation of risk factors for musculoskeletal symptoms is descriptive in nature. However, the excellent response

rate among the population provides a strong, representative description of musculoskeletal symptoms and associations with the work of sonography. The prevalence of musculoskeletal disorders is high amongst this population. The findings suggest that musculoskeletal symptoms be related to the work of scanning, in particular, the tasks related to sustained shoulder abduction, manipulating the transducer while sustaining applied pressure, sustained twisting of the neck/trunk and performing repetitive twisting.

Now that this problem has been so clearly identified, the next task facing both the union and the employer is to develop and implement ways to prevent further injury. The employer must commit to doing whatever possible to redesign the equipment, the work environment and the work schedule associated with ultrasound work to protect sonographers. Meanwhile, the union and its members must devise new strategies to compel the employer to take action.

Injured sonographers speak out

Andrea McCallum, a former sonographer at BC Womens Hospital and Health Centre, had to give up the career she loved after only six years in the field. "I'm depressed, and I'm in a lot of pain," she said. "And I'm grieving about losing my job that I really really loved. It was a really great place to work. And I really feel for my supervisor, who has three people off injured right now, when there's already a shortage of sonographers."

To add insult to injury, the Workers Compensation Board is refusing to accept her claim of workplace injury. "I was working in a particular area... vaginal ultrasound ... where you scan in a different position from other people," she said. "It's a very repetitive motion, and it involves extension of the arm, with a static contraction. And it just caught up with me."

McCallum had to go on Medical Employment Insurance because the WCB rejected her claim. "And then I had to go on Long Term Disability," she said. This was devastating for McCallum, a fit, active swimmer who used to compete. "I was 33. And now I only have ten months left on LTD, and I have no idea what's going to happen to me when I'm no longer on claim."

McCallum has chilling advice for those who are hoping for a career in sonography: "Don't expect this to be your lifetime job ... because it won't be, unless you then go into management. Document your injuries. It's frightening, but after all that time and money invested in becoming a sonographer, it only lasted six years for me. And I know other people are getting injured, too."

As a result of her injury, she still can not do simple daily activities like lift groceries or do the laundry without pain and risk of further inflammation. "I'm lucky I have a great family to support me," she said. "This is very stressful for my partner. I'm lucky he's here."

With the aid of the union, McCallum is appealing the WCB's decision. And with the help of HSAs Madden Scholarship Fund, she is enrolled in a certificate program in Occupational Health and Safety. "I hope I can find a job as an OH&S Officer, maybe in a hospital, where I'll be able to work with people whomight one day be in my position," she said. "I'm very grateful for the unions support and guidance."

One factor that McCallum thinks helped stave off her injury for a while is the advice and support she received from fellow sonographers in her department. "People in the department talk to each other if they thought you could be scanning more comfortably. I don't know what I would have done if I had been the one sonographer in an isolated community."

Beth Webb found herself in exactly this situation when she began performing ultrasounds in Golden, BC. "Were

a small hospital, so we have to be versatile," she said. "It's very rewarding. Being in a small community, we get to know everyone really well ... we really become quite close to our patients. We become very involved in their care: they are often your friends and co-workers."

Webb says part of the challenge of being the only sonographer in town is the added responsibility. "We don't have a radiologist on-site," she said.

"We have to make judgements or decisions that other sonographers in centres that have radiologists would not be forced to make, and consequently I feel that I have to try harder to do a good job and provide quality images," she said. "I have to make sure that I can answer questions, and take it one step further to provide all possible information to the radiologist so that the patient gets the best possible care."

Webb's injury began as a "burning pain" in her elbow while at work. "I had recurring pain following exams that were particularly difficult to do ... these would usually be larger patients, when I had to apply extra pressure over a prolonged period. You have to compress the tissue and apply force to bring the image into the focal zone, and make it sharper."

Over time, however, she found that she was beginning to "bring home the pain." "I found that even in lifting a gallon jug of milk from the fridge I wouldn't do it with my right arm," she said. "If I had to pick up my purse or carry my groceries with my right arm, it would cause pain."

Finally, she went to her doctor. "I went to go see my doctor when I felt that the strength in my arm was diminished," she said. "I was concerned that this was related to work." Her doctor prescribed anti-inflammatory medication, and sent her to see a physiotherapist. The physio suggested that Webb was using the "wrong" grip to use her transducer. "She saw that I was using what's called a 'pincher' grip, and had me change my grip to more of a 'grasp,'" Webb said.

"And she assessed that I was scanning in an awkward position, with my arm far away from my body ... with my arm fully extended, my elbow locked ... and that was bad. She told me to keep my arm as close to me as possible, and always bring the patient in as close as possible."

With the help of the medication, tennis-elbow splints, strengthening exercises, and ergonomic education, Webb is steadily recovering from her injury. But like McCallum, she is having difficulty getting WCB to recognize her injury as having been caused as a result of her work.

"I think part of the reason I got injured is because I work in isolation and I don't have contact with other sonographers," she said. "I'm guessing that in a larger centre, they would have been more aware of better scanning techniques; someone would have noticed, and would have told me to try and modify how I'm doing the scans."

"Another reason is that instead of a scanning bed, we're making do with an old inpatient hospital bed that's too wide and not easily adjusted. And though the transducer heads are much better than they were, they are still heavy and awkward to hold."

She is still concerned that even with her new knowledge about the importance of more comfortable scanning positions, she may experience another injury. "I'm 42 now. If I'm looking at retirement at 60 or 65, that's a lot more years to be putting in. If the current workload continues, who's to say I'm not going to have a relapse or recurrence with this?"

"You want your retirement years to be enjoyable. You don't only want to be able to use one hand."

Watch future editions of The Report for more information on prevention initiatives and the strategies for dealing with the employer on this important health and safety issue.

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