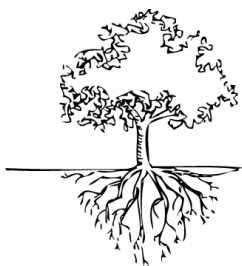


# VIEW

Vol. 1

## Vascular Imaging Essential WorkWellness Toolkit



Essential  
WorkWellness

A comprehensive  
guidebook for  
implementing an  
ergonomics program for  
injury reduction in the  
Vascular Imaging Lab

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# WELCOME!

Welcome to the Vascular Imaging Essential WorkWellness (VIEW) Toolkit.

Revisions made to the Intersocietal Commission for the Accreditation of Vascular Laboratories (ICAVL) Standards for Accreditation in Noninvasive Vascular Testing in 2010 require that accredited labs have an injury avoidance policy. Section 3.1.1 states that *a policy must be in place to address technical staff safety, comfort and avoidance of work-related musculoskeletal disorders (MSD)*. With injury rates among sonographers reaching 90% such a prerequisite is long overdue, but to create a policy, where do you start?

The *Vascular Imaging Essential WorkWellness (VIEW) Toolkit* will take you step-by-step through the basic elements of developing an injury reduction ergonomics program, including hazard assessment, incident and near miss reporting, risk control and statistical tracking. Forms and checklist templates are provided for each phase of program development. The VIEW Toolkit also includes assistance for documenting program outcomes and continuous process improvement. Knowing where to start requires first knowing where you're going. Then all you need is the map to get you there. Here's your map.

Whether seeking to develop an injury reduction program as part of the ICAVL requirements, or simply as best practices, Essential WorkWellness hopes that you find this information helpful.

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## Introduction

The Vascular Imaging Essential WorkWellness (VIEW) Toolkit is designed as a step-by-step guide to creating a safety program that identifies, addresses and manages risks for work-related musculoskeletal disorders (WRMSD) among vascular imaging technologists. The approach to ergonomics can be either *proactive* or *reactive*. A reactive approach means fixing something or making corrections after a problem has occurred, while a proactive approach seeks to identify and improve a situation before it becomes a problem. It is likely that most departments will be starting from a reactive approach. In time, however, your work will set the stage for a proactive system of best practices for worker safety. Management commitment, worker participation and adequate staff training are critical to the success of the program, as are procedures for identifying, evaluating and remediating risks for WRMSD. Included with the VIEW program is a “toolbox” of techniques, templates and resources to assist in the development of a departmental WRMSD avoidance program.

Work-related musculoskeletal disorders among diagnostic medical imaging professionals have reached an all-time high, with 90% of sonographers, echocardiographers and vascular technologists reporting symptoms. <sup>1</sup> The financial and productivity burden of these injuries is becoming prohibitive, and the personal cost to the individual is life altering. As a result, the Intersocietal Commission for the Accreditation of Vascular Laboratories (ICAVL) has added language related to avoidance of work related musculoskeletal disorders (MSD) under Section 3.1 of the 2010 ICAVL Standards. <sup>2</sup>

### **3.1.1 A policy must be in place to address technical staff safety, comfort and avoidance of work related musculoskeletal disorders (MSD).**

Furthermore, every employer has a legal obligation to provide and maintain a safe and healthful workplace for his or her employees, according to the Safety and Health Act of 1970.<sup>6</sup>

While the level of risk for WRMSD depends on the intensity, frequency and duration of exposure to risk factors, it is also influenced by the individual worker’s capacity to meet the demands of the job. When the demands of the job exceed those capabilities, whether through intensity, frequency or duration of exposure, work-related musculoskeletal disorders occur, implementing an ergonomics or injury reduction program assists in fitting the demands of the job to the capabilities of the

worker. Effective ergonomics programs assure optimal productivity, avoidance of injury and increased satisfaction among workers.

## **Cost of Injuries**

Sonographers, vascular technologists and echocardiographers face a daunting list of physical demands in the course of a normal day. One of the original studies looking at WRMSD in sonography showed that 84% of clinical sonographers experienced pain related to their profession. Of those, twenty percent suffered career-ending injuries.<sup>4</sup> More recently, a 2008 study showed that 90% of diagnostic medical sonographers are scanning in pain.<sup>1</sup>

Furthermore, according to the 2008 Salary Survey published by the Society of Diagnostic Medical Sonography, a third of the nation's sonographers are over the age of 50. If more than one third of sonographers are 50 or older, how will institutions adequately fill their staffing needs when 90% of the work force is injured and one third of them are approaching retirement? Workforce shortages are affecting productivity, patient care and reimbursement revenue.

Direct costs for work-related musculoskeletal disorders, such as time-loss wages, medical expenses and insurance premiums, generally range from \$13,000-\$26,000. For every dollar spent on the direct costs of a worker's injury, it is estimated that four times that amount is spent on indirect or hidden costs.<sup>5</sup> Consider what one worker injury would cost your organization in terms of:

- Productivity time lost by injured employee
- Productivity time lost by supervisor managing the injury process
- Cost of time spent by Risk Management/HR staff to complete paperwork generated by the incident
- Cost of continuing all or part of the employee's wages, in addition to medical expenses and replacement staff
- Time to hire or to retrain other individuals to replace the injured worker until his/her return
- Reduced morale among remaining staff, potential for increased staff turnover and lower efficiency
- Increased workers' compensation insurance rates (which are based on historical numbers of injuries)

## Getting Started

In developing an injury reduction program, you identify what has to be done to promote the safety and health of your employees and worksite, and then outline policies and procedures to achieve your safety and health goals. Bringing in an outside expert for consultation and assistance with getting started may speed up the process while you develop in-house expertise. However, this book is designed to guide you through the process step-by-step, whether doing it on your own, or with the guidance of an ergonomics professional.

Before getting started, you should have a basic understanding of what WRMSD are and how they affect sonographers. WRMSD are defined by the Occupational Safety and Health Administration (OSHA) as disorders of the muscles, nerves, tendons, ligaments, joints, cartilage or spinal discs to which the work environment and work tasks significantly contribute, or are made worse by work conditions. WRMSD reduce the productivity and satisfaction of workers, and are the most prevalent injuries to result in time loss. A detailed CME activity on WRMSD Awareness in Vascular Sonography may be found at [www.essentialworkwellness.com/ce.asp](http://www.essentialworkwellness.com/ce.asp)

### Step 1: Know Where You're Starting From

In order to get to where you're going, you have to know where you're starting from. Use this important step to discover what goals should be set and identify the internal resources you have available to assist you in achieving them.

Start by evaluating your current departmental safety program status.

- Do you have an active safety program in your department?
- Is one person clearly responsible for the overall activities of the safety program? Who?
- Do you have a procedure for handling employee concerns regarding safety and risks for work-related injury? Is it being used effectively? If not, what are the barriers to using it?
- Are you keeping your employees advised of the efforts and accomplishments you and/or your safety committee have made in assuring they will have a workplace that is safe and that there is a system in place for reporting risks, injuries and near misses?

An anonymous symptom survey can help you identify patterns that may indicate areas of concern, as well as give you the data you need to present your case to administration. A **Sample Symptom Survey**



can be found in the VIEW Toolbox Appendix A-2. Once your staff has completed the Symptom Survey, analyze the data, totaling the numbers to determine what percentage of staff is symptomatic and look for trends such as common symptoms among multiple staff members or types of exams consistently noted as difficult.

Another important step of risk assessment is take an inventory of the condition and specifications of the equipment that staff are required to use in performing their work. Is all equipment used by employees in good, working order? Do a walkthrough of your department with your staff to identify equipment that is broken, working improperly, out of date or lacking in the particulars needed to perform their work safely. Recommendations for equipment specifications for the reduction of injury can be found in the Industry Guidelines for the Prevention of Work-related Musculoskeletal Disorders in Sonography, available at <http://www.essentialworkwellness.com/resource.asp> . A **Sample Equipment Inventory checklist** for use in performing your equipment walkthrough can be found in the VIEW Toolbox Appendix A-3.

Is equipment reconditioned or replaced as necessary? If not, make a note to include this information in your budget proposal for next year. Building a business case for ergonomics through the development of a cost benefit analysis will be discussed later in this book. *An easy tool for building a business case for ergonomics can be found at <http://www.essentialworkwellness.com/resource.asp>*

Is broken equipment replaced promptly? Broken equipment not only places the staff at risk, but patients as well. Broken equipment should be pulled from use immediately and replaced with equipment that is fully operational. Make sure staff knows the importance of reporting faulty equipment in a timely manner. Is there a program in place for reporting of broken or improperly working equipment? This can be as simple as a clipboard posted for staff to note equipment concerns, and should be available to all staff members. If necessary, meet with your maintenance or biomedical department, or equipment service vendor to discuss the process for reporting equipment problems. If you haven't already done so, designate someone within your department to be the go-between for communicating equipment repair needs with your service providers. This would be a good time to review the equipment repair reporting process with staff. A **Sample Equipment Problem form** can be found in the VIEW Toolbox Appendix A-4.

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## A2: Work-related Symptom Survey

Shift hours and days \_\_\_\_\_ Total hours per week \_\_\_\_\_

Job duties/responsibilities:

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Time on this job \_\_\_\_\_ Other jobs in last year? \_\_\_\_\_

If yes where \_\_\_\_\_ Job title \_\_\_\_\_

1. Number of years working in your current profession.

1   2   3   4   5   6   7   8   9   10 or more

2. Do you have any injury symptoms related to your present job?

0   1   2   3   4   5   6   7   8   9   10

**None**

**Some**

**A lot**

3. If yes, how often?

Seldom

2-3 times per week

4 or more days per week

4. If yes, number of years working in pain.

1   2   3   4   5   6   7   8   9   10 or more

5. On a scale of zero to ten, zero being no pain, and ten being the worse pain imaginable, how would you rate your pain? \_\_\_\_\_

6. Body parts affected.

Neck

Upper back

Mid back

Lower back

Right shoulder

Left shoulder

Wrist(s)

Hand(s)

Other \_\_\_\_\_

A2: Work-related Symptom Survey - pg.2

7. Have you taken time off from work because of your symptoms?  Yes  No

8. If yes, did you use:

Sick time  Vacation time  Time without pay  Worker's Comp

9. Have you received medical treatments for your symptoms?  Yes  No

10. If yes, did you use:

Personal medical benefits  Worker's Comp medical benefits  Pay out of pocket

11. Have you had any work safety training in the past for the job you are currently performing?

0 1 2 3 4 5 6 7 8 9 10  
None Some A lot

12. How EFFECTIVE was any prior training in helping you know how to change how you do your job in order to avoid injury?

0 1 2 3 4 5 6 7 8 9 10  
Very Average Very  
Poor Good

13. What is your level of knowledge of postural alignment as it relates to work safety?

0 1 2 3 4 5 6 7 8 9 10  
Very Average Very  
Poor Good

14. What specific task related to your job aggravates your symptoms the most? \_\_\_\_\_

\_\_\_\_\_

15. Please comment on what you think would improve your symptoms

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_