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Factsheet #14
Updated: January 2013

ACTIVITY-RELATED SOFT TISSUE DISORDERS

Please read the Factsheet called "Introduction to Occupational Diseases" for basic information about workers' compensation for occupational diseases.

What is an activity-related soft tissue disorder?

Activity-related soft tissue disorder (ASTD) is a term used to describe a variety of medical conditions affecting muscles, tendons and/or ligaments, resulting from repetitive movements or exposure to mechanical vibrations. ASTDs are also known as repetitive strain injuries (RSIs), repetitive motion disorders, and accumulative trauma disorders.

These disorders usually involve discomfort or persistent pain in soft tissues of the arms or legs. They may also involve numbness, tingling, sharp pains, and muscle weakness, and they often begin with fatigue and discomfort related to movement.

ASTDs are often occupational diseases, caused or aggravated by employment activities, but they may also be caused or aggravated by activities outside of work.

Can I get workers' compensation for an ASTD?

Yes, if you meet two conditions:

- 1) you must be unable to earn your full wage because of the ASTD; **and**
- 2) your disability **must be caused by the nature of your work**, whether you were employed in one or more jobs.

What information do I need to give WorkSafeBC when I file a claim?

When you file a claim for an ASTD, you will need to provide:

- a diagnosis from your doctor; **and**
- a detailed description of your work activities.

For more information:
Website: www.labour.gov.bc.ca/wab



Lower Mainland/Fraser Valley/Kootenays: 1-800-663-4261
Northern & Central Interior: 1-800-663-6695
Vancouver Island: 1-800-661-4066

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WorkSafeBC will probably send you a lengthy questionnaire to fill out. It asks about your job and the details of your work activities. Take the time to fill this questionnaire out carefully. The information you give will be important to WorkSafeBC's decision about whether your ASTD is caused by work.

WorkSafeBC will also ask your employer for information, and it may phone you for further information.

Below are the kinds of questions you will need to answer:

- What are your symptoms?
- When are your symptoms worse - morning, evening, at home, at work?
- What makes your symptoms worse - gripping, writing, driving, etc.?
- Did your symptoms develop over minutes, hours, days, months, or a number of years?
- Is your problem on the left or right side? Which side was first?
- Do you get better when you are away from work?
- What is your current job and how long have you done it?
- Did you have problems doing this kind of work for other employers?
- Have you recently had any interruptions in your employment such as a vacation, leave of absence, strike or lockout, layoff, or medical treatment before your condition started?
- Were there any changes in your normal work hours, such as overtime or an increase in regular hours?
- Have your employment activities or job duties changed, such as having new activities added, using new equipment, a change in production, loss of a helper, equipment in disrepair, etc.?
- If your job requires a repeated task, how long does it take to complete the task once?
- How many times do you repeat the same motion or muscular activities per minute or per hour?
- Is there any significant force involved?
- Do you work in extreme temperatures?
- Does your work involve any awkward or uncomfortable postures?
- Do your work activities vary throughout the day and, if so, how often?
- How often do you get breaks and how long do they last?
- Do you regularly use tools or vibrating equipment?

How does WorkSafeBC decide if my ASTD is caused by work?

WorkSafeBC divides ASTDs into 3 categories. There are different ways of deciding whether your ASTD was caused by work, depending on the category of your ASTD. This Factsheet discusses each of these categories separately. The 3 categories are:

1. ASTDs listed in **Schedule B** of the *Workers Compensation Act*;

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2. ASTDs that are not listed in **Schedule B**, but are recognized by *Regulation* as occupational; and
3. ASTDs that have not previously been recognized as occupational.

1. Schedule B of the *Workers Compensation Act* recognizes four ASTDs as occupational diseases when they occur under certain work conditions. They are:

- Bursitis of the shoulder and knee;
- Tendonitis;
- Tenosynovitis; and
- Hand-arm vibration syndrome.

Schedule B specifies what type of industry or process you must be working in for WorkSafeBC to recognize these ASTDs as occupational. If you have one of these disorders, and you work in the type of process or industry listed, then WorkSafeBC will **presume** that your disease is caused by your work, **unless proven otherwise**.

In order for WorkSafeBC to accept your claim through the Schedule B presumption, you must still show that your work situation meets the requirements listed in Schedule B. Below is information about what kinds of work meet the requirements of Schedule B.

Bursitis

<p>(a) Knee bursitis (inflammation of the prepatellar, suprapatellar, or superficial infrapatellar bursa).</p>	<p>Where there is repeated jarring impact against, or where there are significant periods of kneeling on, the affected knee.</p>
<p>(b) Shoulder bursitis (inflammation of the subacromial or subdeltoid bursa).</p>	<p>Where there is frequently repeated or sustained shoulder abduction (movement of the upper arm away sideways, away from the body) or shoulder flexion (movement up the upper arm forward, in front of the chest) greater than sixty degrees and where such activity represents a significant component of the employment.</p>

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Tendonitis and Tenosynovitis

These two conditions often occur together, usually in the shoulder, wrist or hand. WorkSafeBC will presume tendonitis or tenosynovitis is related to work when the conditions laid out in Schedule B are present. Schedule B says:

<p>(a) Hand-wrist tendonitis, tenosynovitis (including deQuervain's tenosynovitis).</p>	<p>Where there is use of the affected tendon(s) to perform a task or series of tasks, where such activity represents a significant component of the employment, and that involves any two of the following:</p> <ol style="list-style-type: none"> (1) frequently repeated motions or muscle contractions that place strain on the affected tendon(s); (2) movement of the affected hand or wrist in significant flexion (moving the palm toward the inside of the forearm), extension (moving the knuckles toward the back of the forearm), ulnar deviation (moving the hand sideways in the direction of the little finger) or radial deviation (moving the hand sideways in the direction of the thumb); (3) forceful exertion of the muscles utilized in handling or moving tools or other objects with the affected hand or wrist.
<p>(b) Shoulder tendonitis.</p>	<p>Where there is frequently repeated or sustained shoulder abduction (movement of the upper arm away sideways, away from the body) or shoulder flexion (movement up the upper arm forward, in front of the chest) greater than sixty degrees and where such activity represents a significant component of the employment.</p>

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Hand-arm Vibration Syndrome

Hand/arm vibration syndrome (HAVS) is a vascular disturbance of the hand and arm. It is also called Reynaud's phenomenon or white finger disease.

Schedule B says these are accepted as occupational diseases when your employment involves at least 1000 hours of exposure to tools or equipment that cause significant vibration to the hand or arm.

You will not receive temporary wage loss benefits, because the condition is permanent from the beginning. You will be assessed for a permanent disability award.

What if I have one of the conditions in Schedule B, but my work does not meet the requirements of Schedule B?

WorkSafeBC will not *presume* that your work caused your condition. Instead, the evidence must show that it is more likely than not that the condition was caused by your work activities. Depending on the evidence, WorkSafeBC may still accept your claim using the same method as for ASTDs recognized as occupational by Regulation. For more information on this process, see below.

2. ASTDs recognized by Regulation as Occupational

In addition to the ASTDs listed in **Schedule B**, the following ASTDs have been recognized by Regulation as diseases often caused by work:

- Carpal tunnel syndrome;
- Cubital tunnel syndrome;
- Epicondylitis;
- Thoracic outlet syndrome;
- Stenosing tenovaginitis (also called "trigger finger");
- Radial tunnel syndrome;
- Hypothenar hammer syndrome; and
- Plantar Fasciitis.

If you have a disease in this category, you must provide evidence that the ASTD is caused by the nature of your work in order to get workers' compensation. WorkSafeBC will **not presume** it is caused by your work, as in the case of ASTDs listed in **Schedule B**.

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You will need a written opinion from your doctor or, preferably, from your specialist saying that your work caused your ASTD and exactly how your problem relates to your work.

How does WorkSafeBC decide if these ASTDs are caused by work?

In addition to looking at medical evidence, WorkSafeBC looks at various **risk factors** to decide whether an ASTD in this category is caused by your work. These are factors that medical research has shown are connected to ASTDs. A risk factor can be related to the mechanical aspects of your job, such as vibration, or the physical motions you perform, such as repetitive flexing of a joint. WorkSafeBC will also look at any risk factors related to your general health or previous medical history and activities outside of work.

WorkSafeBC will gather information from both you and your employer. You will probably be asked to complete a questionnaire. It is important that you tell WorkSafeBC about any risk factors in your job.

WorkSafeBC will examine the magnitude or intensity of the risk factor, its impact on the specific part of the body affected by the ASTD, the length of time you were exposed to the risk factor, and the time allowed for the muscles to rest. WorkSafeBC will then determine whether it is likely that the work caused the disorder.

Some risk factors that WorkSafeBC looks at are:

Risk factors in the physical tasks you perform

- **Repetition** – the shorter the time is between repeated actions, the less chance there is for the muscle to rest and recover and the higher the chance of an ASTD.
- **Force** (tension, pressure, friction, or irritation on or of the affected tissue) – the greater the force required by the muscles, the higher the potential for ASTD.
- **Awkward postures**, such as overhead reaching and lifting – there is a higher risk of developing an ASTD where you do work at the end of your range of motion, where force is absorbed by soft tissues instead of bony ones, or where muscle strength is required to hold the posture.
- **Local mechanical stresses** – more forceful contact with objects, such as tools and machinery, may increase the likelihood of developing an ASTD.

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- **Shock** (also known as impact loading) – resisting force from a tool, or applying sudden, high amounts of force, creates a higher chance of developing an ASTD.
- **Grip type** – gripping with fingers alone causes more soft tissue stress than a whole-hand grip, increasing the chance of getting an ASTD.
- **Vibration** – more vibration means that there is an increased chance of developing an ASTD.
- **Task variation** – the less varied the task, the more chance there is for an ASTD.
- **Extremes of temperature** – exposure to hot or cold may increase the chance of sustaining an ASTD.

Physical risk factors considered the most important by WorkSafeBC are the intensity, duration, and frequency of repetition, force, awkward posture and vibration.

Risk factors in your work environment

- poorly designed work stations or tasks (ergonomics);
- work organization - how the work tasks are structured and supervised (e.g. overtime, incentive for faster pacing, lack of supervision);
- work behaviour – non-optimal work habits;
- cognitive demands – the amount of mental effort required, which can increase muscle tension; and
- rest breaks (their length and frequency).

Risk factors in your general health

- age;
- weight;
- gender;
- previous medical history (including having similar disorders in the past, or having a history of smoking);
- inflammatory disorders (rheumatoid arthritis, ankylosing spondylitis, systemic sclerosis, polyneuritis, colitis, etc.); and
- diabetes mellitus.

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How do risk factors affect claims for specific ASTDs?

Risk factors are not all equal, and their significance will vary depending on what ASTD you have. Generally, repetition, force, posture and vibration are most significant. However, WorkSafeBC normally considers risk factors for specific ASTDs recognized by Regulation in the following ways:

Epicondylitis

WorkSafeBC is likely to accept claims where your work involves performing frequent, repetitive, forceful, and unaccustomed movements of the wrist, including gripping, which puts stress on the inflamed tissues of the arms.

Carpal tunnel syndrome

The kinds of work activities most likely to be accepted with carpal tunnel syndrome are those that require: highly repetitive motions of the hand or wrist; use of high force; prolonged wrist flexion (where the palm is held toward the inside of the forearm); highly repetitive motions in cold temperatures; or the use of hand-held vibrating tools. WorkSafeBC will also consider your age, general health and relevant medical history when assessing this disease. Generally, it is more likely that WorkSafeBC will accept the relationship between work activities and carpal tunnel syndrome where the carpal tunnel syndrome is only found in one arm, than where it is found in both arms at the same time.

Other peripheral nerve disorders

Disorders such as cubital tunnel syndrome, radial tunnel syndrome, and thoracic outlet syndrome may be caused or aggravated by repetitive work activities. They all typically result in numbness, tingling, pain, and weakness of the arms and hands.

3. ASTDs not previously recognized as occupational

In some cases, you may have an ASTD that has not previously been recognized by WorkSafeBC as an occupational disease. You may still file a claim. You will have to provide medical evidence that the disorder is caused by your work.

How do I get medical evidence to support my claim?

Start by discussing the cause of your problems with your family doctor or specialist. If your doctor feels your work is most likely a factor in causing your problem, he or she should send a written opinion to

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WorkSafeBC in which it is clear that he is familiar with the nature of your work activities and in which he provides specific and detailed reasons why he believes these work activities were a factor in the development of your condition. If you have an ASTD that is not often accepted by WorkSafeBC, medical or scientific studies about the nature of the problem and work activities would also help support your claim. However, such studies on their own without your doctor's support are not likely to be enough.

If my claim for an ASTD is turned down, what can I do?

If you disagree with WorkSafeBC's decision to refuse your claim, you can request a review by the Review Division. You have **90 days** from the date of the decision to request the review.