

Warm-Up and Stretch

A Companion Guide



Warm-Up and Stretch: A Companion Guide

This pamphlet is a companion piece to the *Warm-Up and Stretch* poster, instructional DVD and pocket card, and is part of WorkSafeNB's Back in Form™ (BIF) training system. Once employees learn the stretching exercises, it only takes 10 minutes to perform them.

WorkSafeNB injury analysis indicates that the majority of work-related musculoskeletal injuries (MSIs) result from activities involving manual handling. In response to, and with the input of subject matter experts and stakeholders, WorkSafeNB developed the Back in Form™ (BIF) training system to address these injuries.

The BIF training system provides instruction on proper posture, body mechanics, manual handling techniques and warm up and stretch exercises. It is implemented into the workplace with other critical ergonomic program elements necessary for an effective health and safety management system that aims to reduce MSIs.



Several nursing homes and many industrial workplaces in New Brunswick have implemented this 10-minute *Warm-up and Stretch* program for their employees. Internal trainers who have been properly trained by WorkSafeNB's ergonomists lead the program at the beginning of each shift.

Why do we need to warm up and stretch before performing physical activities?

Cold muscles injure more easily than warm muscles.

The human body is like the engine of a car: an engine works better when it is properly maintained and warmed up. The same is true of the human machine; maintenance and warm-up will lead to better performance.

When muscles, tendons and ligaments aren't properly warmed up, they're not prepared to meet the physical demands of manual handling. Under cold conditions, muscles are more likely to pull, tear, or cramp, leading to more serious and permanent injury if work is continued.

Still not convinced? Stretching...

- Prevents injuries (strong, pre-stretched muscles resist injury better than strong muscles that haven't been stretched).
- Helps develop an overall awareness of your body, giving you a better understanding of the body mechanics required for manual handling activities.
- Reduces muscle tension and makes your body feel more relaxed.
- Improves co-ordination by giving you freer and easier movement.
- Increases the range of motion in your joints.
- Prepares you mentally and physically for any activity.
- Promotes circulation.
- Feels good!

Everyone can learn to stretch, regardless of age or flexibility.

GLOSSARY

Below are a few key terms that you should understand before you begin. Please refer to the *Warm Up and Stretch* poster for important body positions that are essential for your safety.

Manual handling: Tasks that require a person to lift, lower, push, pull, hold or carry any object, animal or person.

Flex: To bend a limb at a joint.

Extend: To straighten a limb at a joint.

Hyperextension: When a joint is moved beyond its normal range of motion, the connective tissue in the joint is less able to stabilize and protect it. Repeated hyperextension will stretch ligaments and tendons so that their supporting capability is severely reduced.

Neutral back: Maintains the back's natural upright S-curve.

Neutral posture: Maintains the correct alignment of all joints, including the spine. Muscles supporting the joints are strongest in this position. Awkward alignment, non-neutral positions or locked joints will compromise muscular strength and place joints at risk of injury.



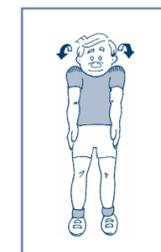
Before performing this *Warm-Up and Stretch* program, contact WorkSafeNB and ask to speak with an ergonomics consultant. We can help you implement a program at your workplace.

Call us at **1 800 222-9775**, or visit us online at worksafenb.ca.

TYPES OF STRETCHES

There are three types of stretches: dynamic stretches, tension-breaker stretches and flexibility stretches. Each stretch is important and serves a different purpose.

1 Dynamic Stretches (General muscle warm-up activities)



A gentle warm-up activity before stretching will help promote blood flow and will increase the temperature of your body's tissues. This increases your muscles' ability to do work, and makes them less susceptible to injury.

A warm-up also prepares your body for tension-breaker stretches, getting your muscles ready for activity. Dynamic stretching or general warm-up activities include light jogging, brisk walking, or the general muscle warm-up activities depicted on the *Warm-Up and Stretch* poster.

Tip: Repeat dynamic stretches 5-10 times.

2 Tension-Breaker Stretches

Tension-breaker stretches follow your dynamic stretches or general muscle warm-up activities. They are used to reduce feelings of muscle tightness, or to prepare your muscles for activity.



Over the course of a working day, we may experience muscle tension for various reasons. If left unchecked, this tightness can intensify and cause persistent pain and discomfort. Tension-breaker stretches can be performed at virtually any time during the day to alleviate discomfort.

Tip: Stretch to the point where you feel mild tension in your muscles. Relax and hold the stretches, without bouncing, for a minimum of *8-10 seconds*.

3 Flexibility Stretches



A flexibility stretch can be performed after any activity, when muscles are warm, and may be used at home as part of a regular stretching program. This type of stretching will increase the pliability of your muscles and the range of motion in your joints.

Note: Flexibility stretches are the same physical stretches as shown in the tension-breaker stretches on the poster. The only difference is the amount of time that you hold each stretch.

Tip: For maximum effect, hold flexibility stretches for a minimum of *15-30 seconds*.

A combination of dynamic and tension-breaker stretches prepare your muscles for activity.

A combination of dynamic, tension-breaker and flexibility stretches promote long-term flexibility.

If you have any personal health limitations, previous back injuries or other concerns, we urge you to consult with a medical professional before beginning the *Warm-Up and Stretch* program.

FINALLY...

You should begin the 10-minute *Warm-Up and Stretch* program with general muscle warm-up activities, followed by tension-breaker stretches.

Avoid stretching cold muscles.

There are good and bad habits associated with stretching. Below are some tips to help you get started with the exercises, as well as pitfalls to avoid.

- Begin with general muscle warm-up activities (dynamic stretches).
- Your stretches should be relaxed, sustained and gradual. *Don't bounce!*
- Your breathing should be slow, rhythmical and under control. *Don't hold your breath!*
- Avoid stretching cold muscles. Remember, do your dynamic stretches first!
- Avoid over-stretching. A stretch should not be painful; you should only feel mild discomfort.
- Exhale as you begin the stretch; inhale slowly as you hold the stretch.
- Silently count the seconds for each stretch; this will ensure that you hold the proper tension for a sufficient period.

After a while, stretching will become automatic and you'll be able to feel the gradual relaxation of your muscles. *Listen to your body!* If the stretch causes you pain, stop!