

## BACK SAFETY & PROPER STRETCHING PROGRAM

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### PURPOSE / SCOPE

The purpose of the Winger Companies, herein referred to as Winger, Back Safety Program is to inform its employees of the positive effects proper lifting techniques, performing stretches before, during and after work to promote a healthier lifestyle both on and off the job site.

Our goal is to prevent musculoskeletal disorders (MSDs) in our workforce. MSDs are a major concern in the construction industry. This program will explain how to stretch effectively to prevent unnecessary pain and injury. You may want to check with your healthcare provider before starting any health care program.

### FACTS

- ✚ Overexertion is the leading cause of lost time injuries, these are all preventable
- ✚ This happens when a load being lifted, shifted, carried, pushed, or pulled exceeds the body's limits
- ✚ Back injuries account for nearly 20% of all injuries in the workplace, impacting more than 1 million workers, costing between \$20 billion in worker's comp cases to \$54 billion of other expenses annually
- ✚ Back pain is most common between the ages of 25 – 60
- ✚ 80% of American workers will experience low back pain at least once in their lifetime
- ✚ 70% of the population will suffer from neck pain at some point in their life, 15% will experience chronic neck pain. This can be prevented by practicing good posture and performing stretches.
- ✚ It is estimated that an average worker loses as many as 7 workdays per year because of back injuries
- ✚ Most low back pain is acute and will resolve itself in 3 days to 6 weeks. If pain persists longer than 3 months to a year, the condition is considered chronic.
- ✚ A normal human body has 400 muscles, 1,000 tendons, 31 pairs of nerves and 33 vertebrae
- ✚ The spinal column is one of the most vital parts of the human body, making all of our movements possible
- ✚ In the past 5 years, 35% of Winger OSHA recordable injuries have been from strained or sprained muscles. The number two injury (32%) was cuts and lacerations, then pinched/smashed, particle in eye, flash burn, broken bones, and finally burns.

### CAUSES

- ✚ Bad Posture – a forward head posture and rounded shoulders add stress to the structures and muscles
- ✚ Sitting slouched at your desk
- ✚ Improper lifting techniques
- ✚ Holding the computer mouse away from your body for hours at a time
- ✚ Limited Activity Level
- ✚ Ergonomics – improper body positions and use of the body; i.e. lifting with your back while twisting
- ✚ Emotional Stress – emotional stressors have shown to be a contributor to chronic neck and back pain
- ✚ Muscle Strain
- ✚ Sleep Positions
- ✚ Degenerative Diseases
- ✚ Acute Events – such as a car accident
- ✚ Most back-related sprains and strains are caused by “micro trauma,” things like lifting children, getting in and out of vehicles, yard work and incorrect posture at computers.

### RESULTS

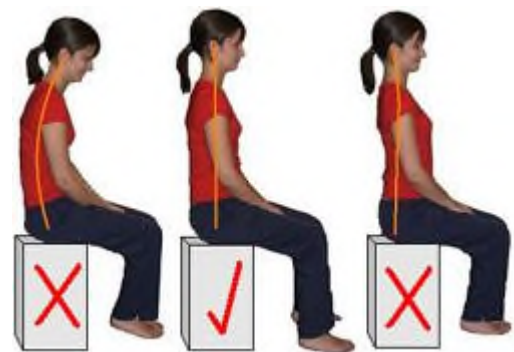
Skanska Construction, General Contractor for Le Bonheur Children's Medical Center, requires all contractors to

perform a 10 minute stretch before beginning each work day. Over 600 contractors gather with several different coaches on the campus at 7 am every morning.

- ✚ One way to gauge a worker’s readiness for the workday
- ✚ Wakes those up who have just rolled out of bed, put on their clothes and showed up to work
- ✚ Great way to loosen up, especially for those that don’t have a personal exercise program
- ✚ Gets blood and oxygen flowing through muscle tissue, increases mental alertness
- ✚ Workers feel better and perform better all day
- ✚ Great morale builder
- ✚ Builds camaraderie and character
- ✚ Helps workers focus on our most important resource, THEMSELVES and their well-being
- ✚ Reduced number of strain and sprain injuries

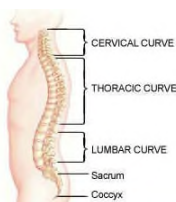
## PREVENTION

- ✚ **Good Posture** – maintain the natural “S” shape of the spine. So What Is A Good Posture? Good posture is NOT about standing or sitting up straight. This is just tightening your back and leg muscles and forcing yourself into the proper position. Compare the different sitting positions in this photograph.



- ✚ **Slouched v. Poised v. Forced sitting:** While sitting: Sit straight, with back resting against the back of a chair. Place feet flat on the floor. Adjust the chair so that the knees are slightly higher than the hips

- ✚ **While standing:** Feet shoulder width apart and weight balanced. Ears, shoulders, and hips aligned
- ✚ **Micro Breaks:** Frequent breaks of 10 – 20 seconds to arch back and stretch tense muscles. Increases blood flow and decreases the risk of back injuries
- ✚ **Healthy Weight:** Excess weight, especially in the belly, put extra stress on the back muscles.
- ✚ **Exercise:** Simple exercise improves overall wellness. Reduces back and muscle injuries. Do stretches throughout the day to reduce tension and strain on muscles
- ✚ **Sleeping:** Too soft mattress can actually cause back pain. Best sleeping position is on your side with a small pillow between your knees. If you sleep on your back, keep a small pillow under your knees. When driving, sit with your back against the seat, legs bent, knees slightly higher than the seat. Use safe lifting techniques on and off the job.
- ✚ **Bend your knees** when picking up small children, lifting a garage door, trash bags, doing household chores, cutting wood, lifting objects into back of truck, putting in fence, gardening, etc.



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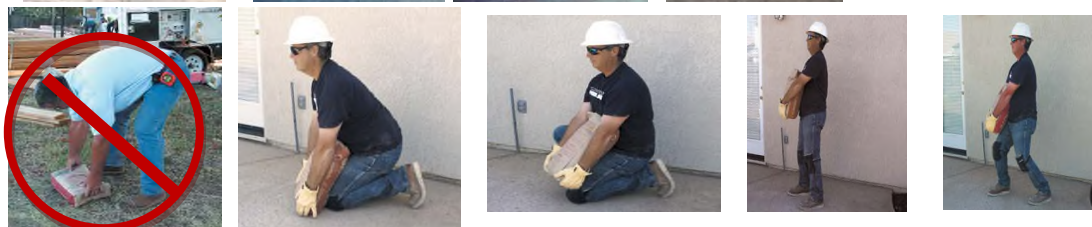
## SAFE LIFTING

As a basic starting point, one person should be able to lift an object weighing up to 50 pounds (Lifting loads heavier than about 50 pounds will increase the risk of injury and is against Winger policy):

- ✚ If the object is at waist height *and* directly in front of the person.
- ✚ If the object is within 7 inches from the front of his or her body.
- ✚ If there is no twisting involved.
- ✚ If there is a handle on the object.
- ✚ If the load inside doesn't shift once lifted.
- ✚ Face the load with feet shoulder width apart
- ✚ Keep heels down and toes pointed slightly out
- ✚ Squat by bending at the hips
- ✚ Use leg and stomach muscles to power the lift
- ✚ Maintain the backs natural curves while lifting by keeping the head up
- ✚ Keep your nose between your toes. In other words, don't twist while lifting.
- ✚ Test the weight of the object, if it is too heavy, ask for assistance or use material handling equipment

Before manual lifting is performed, a hazard assessment must be completed. The assessment must consider size, bulk, and weight of the object(s), if mechanical lifting equipment is required, if two-man lift is required, whether vision is obscured while carrying and the walking surface and path where the object is to be carried. If any of the conditions listed above is not met, then the load would be considered "unsafe," and modifications must be made to make it a "safe" lift. In order to make it a safe lift:

- ✚ The weight of the load must be decreased, or
- ✚ It needs to be a "two-person" lift, or
- ✚ Mechanical assistance must be used (dolly, cart, lift, etc.). Manual lifting equipment such as dollies, hand trucks, lift-assist devices, jacks, carts, hoists must be provided for employees. Other engineering controls such as conveyors, lift tables, and work station design should be considered.



## BENEFITS OF STRETCHING

- ✚ Stretching increases flexibility. Flexible muscles can improve your daily performance. Tasks such as lifting materials, bending to tie your shoes or hurrying to catch a bus become easier and less tiring.
- ✚ Stretching improves range of motion of your joints. Good range of motion keeps you in better balance, which will help keep you mobile and less prone to injury from falls — especially as you age.
- ✚ Stretching improves circulation. Stretching increases blood flow to your muscles. Improved circulation can speed recovery after muscle injuries.
- ✚ Stretching promotes better posture. Frequent stretching keeps your muscles from getting tight, allowing you to maintain proper posture and minimize aches and pains.
- ✚ Stretching can relieve stress. Stretching relaxes the tense muscles that often accompany stress.
- ✚ Stretching may help prevent injury. Preparing your muscles and joints for activity can protect you from injury, especially if your muscles or joints are tight.



## STRETCHING ESSENTIALS – HOW TO'S

How often to stretch is up to you. As a general rule, stretch whenever you exercise. If you don't exercise regularly, you might want to stretch at least three times a week to maintain flexibility. If you have a problem area, such as tightness in the back of your leg, you might want to stretch every day or even twice a day.

Stretching increases blood flow to the muscles. Stretching after work may be even more important. Stretching helps to remove lactic acid from the muscle, which in turn reduces muscle soreness. That promotes better flexibility. Stretching also helps you relax. Here are some pointers for stretching:

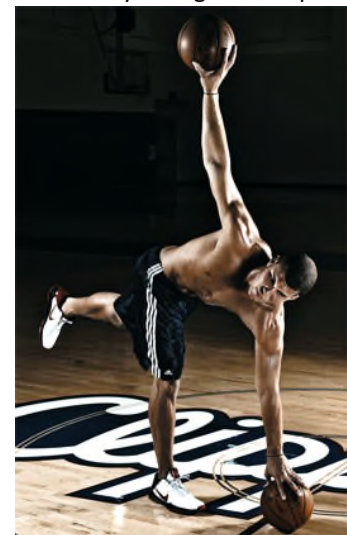
- ✚ Target major muscle groups. When you're stretching, focus on your calves, thighs, hips, lower back, neck and shoulders. Also stretch muscles and joints that you routinely use at work or play.
- ✚ Warm up first. Stretching muscles when they're cold increases your risk of injury, including pulled muscles. Warm up by walking while gently pumping your arms, or do a favorite exercise at low intensity for five minutes. Better yet, stretch after you exercise — when your muscles are warm and more receptive to stretching.
- ✚ One caveat: If you plan to stretch only after your workout, increase the intensity of the activity more slowly than you would if you had stretched your muscles before exercising.
- ✚ Hold each stretch for at least 30 seconds. It takes time to lengthen tissues safely. Hold your stretches for at least 10 - 30 seconds — that can seem like a long time, so keep an eye on the clock or your watch. Then repeat the stretch on the other side. For most muscle groups, a single stretch is often enough if you hold it long enough.
- ✚ Don't bounce. Bouncing as you stretch can cause small tears in the muscle. These tears leave scar tissue as the muscle heals, which tightens the muscle even further — making you less flexible and more prone to pain.
- ✚ Focus on a pain-free stretch. Expect to feel tension while you're stretching. If it hurts, you've gone too far. Back off to the point where you don't feel any pain, then hold the stretch.
- ✚ Relax and breathe freely. Don't hold your breath while you're stretching.
- ✚ Don't overstretch. Stretching too far can actually damage the muscles.





## SUGGESTED STRETCHES FOR WINGER EMPLOYEES - WARM UP FIRST BY WALKING IN PLACE

- ✚ **Neck Stretch – Side to Side-** With shoulders parallel to the floor, bend your head to one side as if to put your ear on your shoulder. Do not raise your shoulder. You will feel the stretch on the opposite side. Hold for 10 seconds. Now, do the other side. Relax and repeat 10 times.
- ✚ **Neck Stretch – Forward & Back-** With shoulder parallel to the floor, bend your head forward as to touch your chin to your chest. Hold for 10 seconds. Now, bend your head back, pointing your face towards the ceiling. Hold for 10 seconds. Relax and repeat 10 times.
- ✚ **Shoulder Warm-Up-** Relax your arms at your side. Lift your shoulders up and roll them forward 10 times. Now, roll them backwards 10 times.
- ✚ **Arm Circles-** With your body standing straight, raise your arms slightly at your side and make a circular motion. Repeat making circles and slowly raise your arms toward the ceiling. Then, repeat making circles in the opposite direction and slowly lower your arms to the starting position.
- ✚ **Hand Stretch-** With your right hand, press against the fingers or palm of your left hand. Hold for 10 seconds. Relax and repeat with the other hand. You can also stretch each finger individually.
- ✚ **Capital “C’s”-** Stand with your hands on your hips, feet shoulder-width apart. Raise your right arm up over your head in the shape of a “C” and bend at the waist to your left. Hold for 10 seconds. Do the same with your left arm and bend at the waist to your right. Hold for 10 seconds. Relax and repeat 10 times.
- ✚ **Twist your Trunk-** Stand with feet shoulder-width apart. Stand tall with rib cage lifted and hands on hips. Now, slowly rotate your upper body to the right until you feel the stretch. Keep your back straight with feet and hips facing forward. Hold for 10 seconds and then repeat in the opposite direction doing 10 repetitions for each side.
- ✚ **Bend at Waist-** Stand with feet shoulder-width apart. Bend forward at waist. Hold for 10 seconds. Raise body and bend backwards at waist, look upwards. Hold for 10 seconds. Repeat 10 times.
- ✚ **Calf Stretch-** Lean against a wall or other stationary object, both palms against the object. The leg you want to stretch is back, several feet from the wall, your heel firmly positioned on the floor. Your other leg is flexed about halfway between your back leg and the wall. Start with your back straight and gradually lunge forward until you feel the stretch in your calf. It is important to keep your back foot straight and angled 90 degrees from the wall. Hold for 10 seconds and repeat each leg 10 times.
- ✚ **Quad Stretch I-** Balance yourself with one hand. With your other hand, reach back and grasp your ankle. Pull heel toward buttocks until you feel a stretch in the front of the thigh. Hold for 15 seconds. Switch leg. Repeat 10 times. You want to keep your back straight and not allow the knee to drift forward ahead of the stance leg. Do not slouch forward, as that effectively negates the stretch’s effectiveness.
- ✚ **Quad Stretch II-** Balance yourself. Bend your left leg upwards behind you. With your right hand, grasp your left ankle. Point your knee towards the floor. Now, press your hips forward until you feel the stretch in the front of the thigh. Hold for 10 seconds. Relax and repeat the other side. Repeat 10 times.
- ✚ **Hamstring / Groin Stretch-** Stand with feet a little farther apart than shoulders to widen stance. Bend one knee above but not over the toe. Keep the other leg straight. Put hands on thighs for support. Hold for 10 – 15 seconds. Switch sides. Repeat 10 times.
- ✚ **Other Stretches-** You may have other stretches you have learned that work very well for you. Incorporate those into your daily stretch routine.



## **MANAGEMENT AND SUPERVISION RESPONSIBILITIES**

Musculoskeletal injuries caused by improper lifting must be investigated and documented. Incorporation of investigation findings into work procedures must be accomplished to prevent future injuries. Supervision must periodically evaluate work areas and employees' work techniques to assess the potential for and prevention of injuries. New operations should be evaluated to engineer out hazards before work processes are implemented. Manual lifting equipment should be used instead of manual lifting where possible. Supervisors should enforce the use of lifting equipment.

## **TRAINING**

All Winger employees will be required to perform stretches at the beginning of their work day and as needed throughout their work shift. Winger employees will be trained on the proper way to do stretches and safe lifting practices. This program became mandatory as of January 1, 2014. This program will also be supplemented by the Winger Manual Material Handling and Ergonomics Programs.

## **SUMMARY**

The safety and well-being of our employees is our prime concern. This can be achieved through proper pre-job planning and workplace analysis. We encourage our employees to establish and maintain a safe working environment. This program is intended to help our employees become educated and maintain a better lifestyle.

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## **DOCUMENT CONTROL:**

Initial Program October 5, 2011  
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