Musculoskeletal Disorders (MSDs) are injuries and disorders of the muscles, nerves, tendons, ligaments, joints, cartilage and spinal discs. The symptoms of MSDs can include a dull aching sensation, discomfort with specific movements, tenderness to the touch, a burning sensation, pain, tingling, cramping or stiffness. Symptoms often appear gradually and may disappear during rest. The most common problems occur in a person’s neck, low back, shoulders, elbows, wrists and hands.

Primary Risk Factors
When we are aware of motions or movements that might cause problems, we can take steps to avoid doing something that might develop into a MSD. The four primary risk factors for MSDs include:

- Awkward postures
- Using excessive force
- Repetitive motions
- Contact stress

Maintaining Flexibility
One of the contributing factors to strains is moving our body or muscle groups before they have been ‘warmed up’ for work. There is real value in practicing some basic stretching exercises to prepare our bodies for work. Simple stretching exercises for our hands and wrists, back, and neck can help to avoid problems during the day. Hands and wrists should be stretched so they are ready to move in typical ways required at work. Your neck can be stretched gently from side to side and then from front to back. Your back can be stretched while sitting in a chair and bending so your chin gets close to your knees.

Not only should you stretch when you begin work, but take mini stretch breaks throughout the day.

Lifting Techniques
How we lift and use our back will determine if we experience pain and troubles that we can avoid. Improper lifting will result in strains and pain. By following these lifting tips, you can avoid being hurt and having pain. No one can force you to lift the right way; you have to decide to do the right thing every time you lift.

First, when lifting, size up what is going to be lifted and if it is too awkward, too big or too heavy, get some help. Too many times, people have lifted items that were too big and the results were painful.

Second, always lift with your legs and never with your back. Most of us still lift freestyle (lifting with our backs instead of our legs) because it is easier. Our leg muscles are designed to lift loads, our backs are not set up that way. When lifting, don’t bend at your waist; bend with your knees. Lifting with your waist will cause lower back injuries.

Third, when lifting, avoid lifting and twisting all in the same motion. Your first goal is to get what you are lifting up and then, once your legs are straight, you can move your legs instead of twisting your waist and lower back.

Rules of Good Lifting
If you follow these rules for lifting, you will reduce the possibility of injury:

- Size up the load before lifting—test by moving a corner or pushing the load.
- Bend the knees when lifting—let your legs do the work.
- Place feet close to the object and center yourself over the load.
- Lift straight up in a smooth motion.
- Do not twist or turn your body once the lift is made.
- Make sure there is a clear path—don’t fall over something you can’t see.
- Set the load down properly.
• Always push a load that is on a cart—never pull it.
• If it is a long object, get some help.
• Split the load into smaller loads if possible.

Twisting, Reaching, Sideways Bending, Unequal Lifting

How we lift is very important, but there are other factors that cause strains and they involve twisting and reaching. Any amount of twisting, reaching or bending while lifting causes more stress on the back. Here are some points to consider:

• Reaching upward: This usually causes the back to arch and increases the forces on the lower spine. It also puts stress on the upper back, shoulders and arms.
• Forward reaches: Reaching beyond the length of your arm puts a lot of stress on your lower back.
• Bending and twisting concerns: Bending sideways or twisting your trunk puts stress on your lower back and increases the possibility of a lower back strain.

The possibility of causing a muscle strain increases when you don’t move properly and you do a lot of reaching, twisting, sideways bending and unequal lifting or carrying.

Some Final Thoughts...

Lifting and over-reaching are some of the main causes of musculoskeletal disorders. Pausing for a moment to make sure that you are lifting properly and not over reaching will help to prevent strains. The safety and health services available through the company can help you with any ergonomic questions or concerns that you may have.

Quiz

1. MSD stands for:
   a. Musculoskeletal Disorder
   b. Musculoskeletal Disease
   c. Minor and Serious Distresses

2. Which one of these are primary risk factors for MSDs?
   a. Too much stretching
   b. Repetitive Motion
   c. Restricted movement

3. Should you stretch before you begin working?
   a. Yes
   b. No

4. Lift with your back not your legs.
   a. Yes
   b. No

5. Try not to twist your body when lifting.
   a. Yes
   b. No

Answers

1. a. 2. b. 3. a. 4. b. 5. a
STRETCH FOR SUCCESS

**Chest/Bicep Stretch**
Lace fingers behind back and squeeze shoulder together. Slowly raise and straighten arms. Hold for 15-30 seconds. Repeat 3 times.

**Standing Backward Bend**
Arch Backward to make hollow of back deeper. Hold for 15-30 Seconds. Repeat 3 times.

**Shoulder Shrugs**
Shrug shoulders up and down, forward and backward. Hold for 15-30 seconds. Repeat 3 times.

**Wrist Extension Stretch**
Sitting with elbows on table and palms together, slowly lower wrists to table until a stretch is felt. Be sure to keep palms together throughout the stretch. Hold for 15-30 seconds. Repeat 3 times.
**STRETCH FOR SUCCESS**

**Estiramiento de pecho / bíceps**
Entrelace los dedos por detrás de la espalda y apriete los hombros hacia dentro. Alce los brazos y endécelos lentamente. Sostenga durante 15 a 30 segundos. Repítalo 3 veces.

**Inclinación de pie hacia atrás**
Arquéese hacia atrás de modo que la depresión de la espalda se haga más profunda. Sostenga durante 15 a 30 segundos. Repítalo 3 veces.

**Encogimiento de hombros**
Encoja los hombros hacia arriba y hacia abajo, hacia delante y hacia atrás. Sostenga durante 15 a 30 segundos. Repítalo 3 veces.

**Estiramiento prolongado de la muñeca**
Siéntese con los codos sobre la mesa y las palmas juntas; baje lentamente las muñecas hasta que sienta un estiramiento. Asegúrese de mantener las palmas juntas durante todo el estiramiento. Sostenga durante 15 a 30 segundos. Repítalo 3 veces.
**MEETING TOPIC:**  
Driving Don’t Get Bent Out of Shape  
**DATE:** __________

**LOCATION/DEPARTMENT:** ____________________________________________

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*By signing this sheet you are acknowledging participation in this training.*