## Deskercise – Small Joints Are a Big Deal

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Many American workers are at risk for repetitive stress or strain injuries. Such injuries are not limited to those who spend workdays on desktop computers. Farmers or agricultural workers and factory workers who perform repetitive movements are also at risk for musculoskeletal disorders. Musculoskeletal disorders, including repetitive stress injuries like carpal tunnel syndrome and tendonitis, account for about one-third of all injuries and illnesses causing missed days of work. Musculoskeletal refers to the muscles, tendons, ligaments, bones and joints that move the body.

Musculoskeletal disorders, like carpal tunnel syndrome, gradually develop over weeks, months and years. Musculoskeletal disorders can affect the arms, hands, fingers, neck, back, wrists, legs and shoulders. Carpal tunnel syndrome develops in the hands and wrists when individuals perform a lot of repetitive wrist, hand and arm motion without time to recover.

Carpal tunnel syndrome is caused by pressure on the median nerve where it passes through the wrist into the hand. The median nerve passes through the carpal tunnel and provides sense of touch and movement to parts of the hand. Tendons inside the carpal tunnel can get irritated and swell, pressing against the median nerve. This pressure causes tingling, numbness, weakness or severe pain in the hand and fingers. It can also result in a lack of hand strength and inability to make a fist and hold objects. Continued pressure can damage the nerve and cause permanent loss of feeling.

Certain conditions make computer users or desk workers at increased risk for developing musculoskeletal disorders. Risky conditions include:

• Using a keyboard for long periods without breaks or rest

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- Using force when striking the keyboard or gripping a computer mouse
- Working with awkward neck, shoulder, elbow, wrist or back postures
- Staying in the same position for a long time with little or no movement
- Continuous pressure against wrist from the work surface edge or chair armrest
- Continuous pressure from the front edge of the chair on the backs of the legs

Musculoskeletal disorders like repetitive stress injuries are preventable. Take micro-breaks to allow overused parts of the body to rest and recover. Do not wait until you feel pain or discomfort. Moving more will prevent or reduce stiffness and pain. Move joints through their full range of motion.

Deskercise, or desk exercises, can help reduce repetitive stress injury risk. The exercises in this guide can help you avoid injury. These exercises can be performed daily or multiple times a day if needed. These small joint exercises, combined with moderate-intensity exercise of at least 150 minutes each week, will help you to stay healthy and be productive.

### **Sample Exercises**

### **Chin Tucks**

- 1. Sit up straight with your shoulders down and back away from your ears.
- 2. Without leaning forward, stretch your neck and chin forward.
- 3. Without leaning back, bring your neck back to a neutral position and pull your chin in.
- 4. Repeat 10 times.



- 1. Sit up straight with your shoulders down and back away from your ears.
- 2. Slowly turn your head to look to the right.
- 3. Return to center, and then slowly turn your head to look to the left.
- 4. Repeat 10 times on each side.







### **Head Tilts**

- 1. Sit up straight with your shoulders down and back away from your ears.
- 2. Slowly lower your right ear to your right shoulder.
- 3. Return to center, and then slowly lower your left ear to your left shoulder.
- 4. Repeat 10 times on each side.

\*To increase the stretch, let the hand on the side you are tilting toward rest on top of your head, and let gravity do the work. Do not pull or apply pressure to your head.

### Wrist Stretch

- 1. Sit up straight with your shoulders down and back away from your ears.
- 2. Bring your palms together in front of your heart.
- 3. Rotate your wrists to point your fingers forward and extend your arms in front of you.
- 4. Bring your hands back to your chest and rotate your wrists to point your fingers toward the ceiling.
- 5. Repeat 10 times.









### Cat's Claws

- 1. Sit up straight with your shoulders down and back away from your ears.
- 2. Hold your hands in front of you with your fingers spread out and extended toward the ceiling.
- 3. Leaving your palm open, curl your fingers to create claws.
- 4. Straighten your fingers toward the ceiling and repeat 10 times.





### Finger O's

- 1. Sit up straight with your shoulders down and back away from your ears.
- 2. Hold your hands in front of you with your fingers spread out and extended toward the ceiling.
- 3. Slowly touch the tip of the index finger to the tip of your thumb, creating an "O." Repeat with the middle, ring, and pinkie fingers creating an "O" each time. Try to keep the fingers not making the "O" as straight as possible.
- 4. Repeat 10 times on each hand.









### **Reverse Prayer Hands**

- 1. Sit up straight with your shoulders down and back away from your ears.
- 2. Press the backs of your hands together in the center of your chest.
- 3. Hold for 15-30 seconds.

### Wrist Bend

- 1. Sit up straight with your shoulders down and back away from your ears.
- 2. Hold your hands in front of you with your wrists in a neutral position and your fingers pointing forward.
- Without moving your forearms, point your fingers upward, and then 3. point your fingers downward – holding for 3-5 seconds in each position. 4.

Repeat 10 times. \*To increase the stretch, use your left hand to pull your right fingers toward your body. Do the same on the left side.





### **Toe Raises**

- 1. Sit up straight with your shoulders down and back away from your ears and your feet flat on the floor.
- 2. Raise your heels off the floor so that you are on your tiptoes.
- 3. Slowly lower your heels back to the floor.
- 4. Repeat 10 times.

\*To increase the intensity, use your hands, or hold hand weights on top of your legs, to create resistance when you raise your heels.

### **Toe Lifts**

- 1. Sit up straight with your shoulders down and back away from your ears and your feet flat on the floor.
- 2. Keeping the balls of your feet pressed into the floor, raise your toes off the floor as high as you can.
- 3. Lower your toes back to the floor, and repeat 10 times.

### Toe Curls

- 1. Sit up straight with your shoulders down and back away from your ears and your feet flat on the floor. If you have a towel, place it under your feet.
- 2. Curl your toes under to scrunch the towel then release.
- 3. Repeat 10 times.

### **Ankle Circles**

- 1. Sit up straight with your shoulders down and back away from your ears and your feet flat on the floor.
- 2. Raise your right leg so that your foot is a few inches off the ground.
- 3. Rotate your ankle in small circles to the right and then to the left 10 times each.
- 4. Repeat on the left side.

The poster MP523, *Deskercise: Small Joints Are a Big Deal*, and companion poster MP524, *Deskercise: Sit, Stretch and Strengthen*, are available at <u>www.uaex.edu</u> (click the "Publications" link).

### References

U.S. Department of Labor, Occupational Safety and Health Administration. <u>www.osha.gov</u>. Van Tulder, M., A. Malmivaara and B. Koes. (2007). "Repetitive Strain Injury," *The Lancet*, Vol. 369(9575), pp. 1815-1822. Photos Credit: Kerry Rodtnick, Extension Videographer, Communications, University of Arkansas Division of Agriculture, Little Rock

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