



## Musculoskeletal System

### Small Joints, Big Limitations

One of the most common age-related disorders of the skeletal system is arthritis. This disorder refers to either the inflammation or breakdown of cartilage tissue in joints due to wear and tear. This causes the swelling and tenderness, pain, stiffness and joint instability that worsen with age. The two most common types of arthritis are osteoarthritis and rheumatoid arthritis. Osteoarthritis is one of the leading causes of disability in people over the age of 65 (1). This simulation will demonstrate the stiffness and limited range of motion commonly experienced by older adults with osteoarthritis. The simulation will require you to perform various activities of daily living that may be affected by osteoarthritis. The goal of this simulation is to help you experience joint stiffness and limited range of motion in the fingers. This will increase your awareness of challenges older adults face daily and to build a sense of empathy towards older adults.

### Materials

- 1 pair of shoes with laces
- 1 jacket with a zipper
- 1 chair
- 1 computer/keyboard
- Flat surface

### Procedure

1. Complete the precursor simulations if you have not already done so.
2. Assure that the glove from the precursor station is still on, put on another glove on the other hand, and use tape to join fingers on both hands.
3. Sit down on a chair with your unlaced shoes on the floor in front of you.
4. Put the shoes on your feet and tie the laces; then stand up from your chair.
5. Put the jacket on and zip it up.
6. Unzip the jacket and take it off.
7. Sit back down onto the chair, untie your shoelaces, and take off your shoes. Be sure to keep the gloves on for the next section of the simulation.
8. Position the laptop or keyboard on a flat surface in front of you.
9. Begin typing a 10-item list of groceries you would buy from the store.

### Reflection Questions

1. Are there any other daily tasks you can think of that would be seriously impacted by having osteoarthritis?
2. If you were diagnosed with osteoarthritis, how would it impact your daily life?
3. Did you ever feel frustrated while completing tasks? How do you think older adults would deal with these changes?