

Over the years, several Argonne employees have sustained hand, arm and back injuries while attempting to either change a water bottle or carrying a bottle. Because these are typically office type tasks, they are not viewed as hazardous work. However, the reality is far different.

A full five-gallon water cooler bottle weighs approximately 43 pounds. The bottle's awkward shape, combined with the clockwise motion involved with lifting, increases the likelihood of muscular skeletal type injuries. If you feel comfortable placing the bottle on the cooler, please be aware of the hazards associated with the task and follow the steps below in order to help prevent injury.

#### **Step 1: Preparation**

- If possible, position a sturdy table or chair near the water cooler where the water jug can be set before it is placed on the cooler. Doing this reduces the distance the jug must be lifted, as opposed to lifting from the floor directly to the cooler dispenser.
- You may also use a chair or cart with wheels to move the bottle from storage to the cooler.



#### Step 2: Lifting from the Floor

- Spread both feet to align with the width of your shoulders with one foot slightly in front of the other for leverage.
- Squat down close to the water bottle, keep your back straight and stomach muscles tight. Doing this causes the knees to bend, forcing the legs to absorb most of the shock from the lift.



# **Step 3: Gripping and Lifting**

- Use your dominant hand to securely grasp the bottle's neck or handle and place your other hand under the bottle.
- When you feel comfortable, slowly stand up, consciously keeping your back straight, stomach muscles tight, and lifting from your knees.
- Keep the bottle below your field of vision. If you have to turn with the bottle in hand, turn your entire body, feet first, to prevent twisting the spine.
- Set the bottle on a sturdy raised surface next to the cooler.



# Step 4: Lifting from a Raised Surface

- Remove the sanitary pull tab from the lid.
- Slowly lift the bottle up with one hand under the bottle and the other hand, thumb facing down, securely around the bottle's neck. Inverting your hand like this will account for the 180 degree flip the bottle requires to be inserted in the cooler.



# **Step 5: Inserting the Bottle in the Cooler**

- Slowly tip the bottle 45 degrees above the cooler until the neck can be rested in the hole.
- At the same time, slide your hand from the neck to the wider part of the bottle. Allow gravity to insert the bottle while using both hands to position it in an upright position.



# **Tips and warnings:**

Make sure you can safely lift 43 pounds by yourself before performing this task. Ask for assistance if you don't feel comfortable lifting this weight. Do not attempt to carry a water bottle over a long distance. Instead, use a cart.

# For more information, contact ESQ Safety Associate Quinn R. Matula at ext. 2-3734 or qmatula@anl.gov.

[Information source: "How to change a five-gallon water cooler bottle" by Josh Arnold. eHow.com]