Ergonomic Designs for Hotel Work

Thomas Lorusso DEA 670, Spring 2000

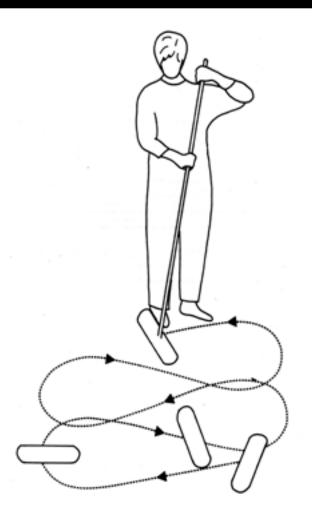
Backpack Vacuum

- Lightweight design for users of all sizes
- Distributes weight on back and hips
- Reduces stress on wrists and lower arms
- Allows users to clean stairs easily



Proper Mopping Motion

- Mopping should be done in an S motion while walking backwards
- Mop, rinse, and dry small sections at a time
- Use the appropriate mop head for different size area



Mop Bucket Considerations

- Bucket should have large cylindrical handles for easy lifting
- Long folding
 handle or pedals
 for wringing mop
 reduces stress on
 arms and back
- Bucket should empty from bottom





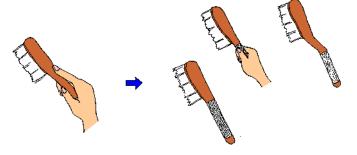
Cleaning Tools

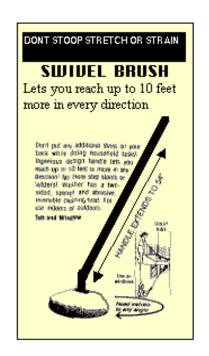
Handtools:

- bent handles to reduce high risk posture
- rubber coated handles for improved grip

Scrubbers

- adjustable length handles
- pivoting heads to allow for different cleaning angles





Cutting and Slicing

- Bent handle knives reduce high risk wrist posture of cutting and chopping
- Reduce accidental cuts by using a bagel holder



Colored Cutting Boards

- Cross
 contamination can
 produce food borne
 diseases
- Use of color coded cutting boards reduces cross contamination



Kitchen Footwear

- Shoes should have sturdy uppers and high grip soles
- Utility staff should wear safety shoes with toe protection
- Use strap on traction soles or slip on rubber soles on wet surfaces



Cleaning Pots and Pans

- Scrubbing is a highly repetitive, forceful motion performed in high risk postures
- Alternatives to hand cleaning pots and pans:
 - power scrubber
 - recirculating soaker
 - alkaline cleaning solution

(top view)



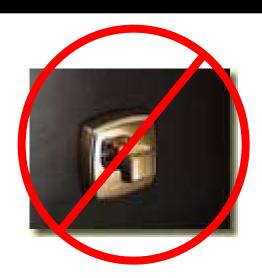
Shower Control Design

- Separate levers for hot and cold
- Off positions at 9 and 3 o'clock
- Hot and cold should be clearly labeled
- Red for "hot" and blue for "cold"
- Position shower controls on the wall opposite of the shower head



Advantages of Lever Use

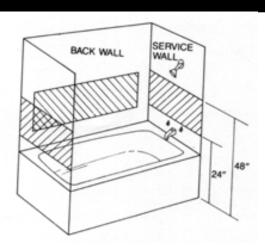
- Levers should be used instead of knobs
- 6 inch long, cylindrical handle
- 2 inch diameter of handle
- Allows for straight wrist grip
- Produce twice the torque
- Quickly shut off hot water
- Easier for elderly to use

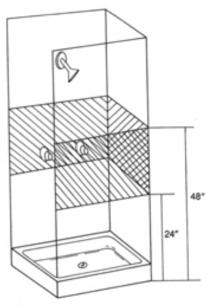




Grab Bars

- Located on all 3 walls
- 24 inch minimum length
- Support 350 pounds of force
- Bath: 24" above floor
- Shower: 48" above floor
- Assist entry and exit from bath
- Assist change from sitting to standing in bath





Sit-stand Chairs

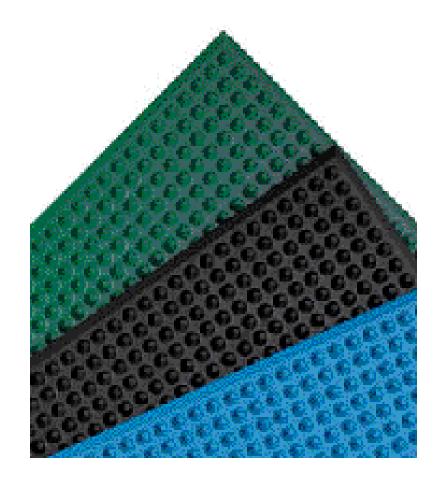
- Reduce standing time for employees
- Allow for easy transfer from standing to sitting position
- Supports more neutral posture for computer use





Anti-fatigue Floor Mats

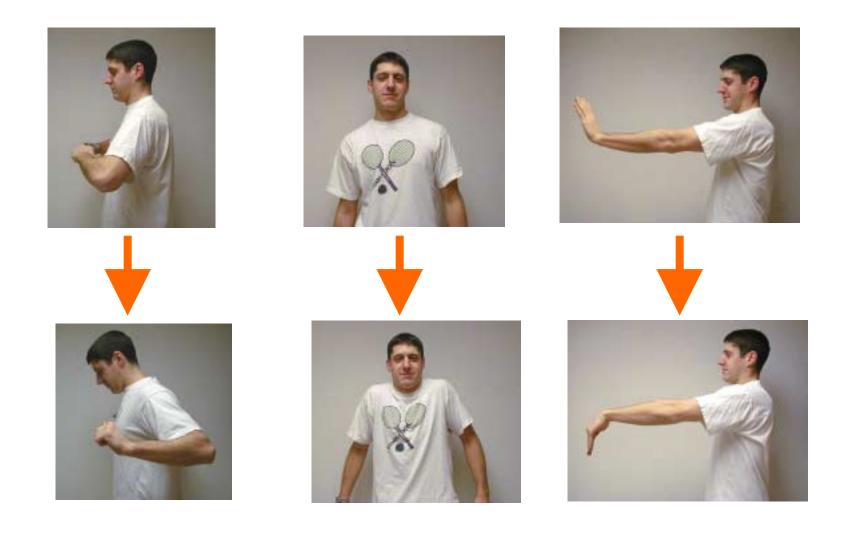
- Used for workers who are on their feet for long periods of time
- Padding reduces stress on knees, ankles and feet



Benefits of Stretching

- Employees should stretch upper and lower body parts before all physical activity
- Stretching can reduce complaints, injuries and absenteeism of manual workers. Stretching before work can help do the following:
 - Place bones in proper alignment
 - Reduce friction in joints
 - Increase flexibility, and durability

Examples of Upper Body Stretches



Miscellaneous

- Contrasting color for shower curb
- No unsupported fixtures
- Shower should include seat
- Ground fault protection on all outlets
- Wall mount all electrical appliances

