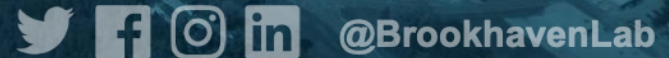




TAKE FIVE for Safety- December Safety Theme: Ergonomics

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Musculoskeletal Disorders (MSDs)

- These disorders include muscle strains and tears, ligament sprains, joint and tendon inflammation, pinched nerves, herniated spinal discs, and other conditions.
- These conditions may develop gradually over time or may result from instantaneous events such as a single heavy lift.
- Pain, loss of work, and disability may result.

Ergonomics

- In occupational health, ergonomics is the design of work tasks and job demands to fit the capabilities of the working population.
- The goal of ergonomics is to reduce and prevent musculoskeletal disorders caused by multiple factors. These include:
 - Physical (work tasks such as pushing, pulling, or lifting)
 - Personal (age, gender, and physical fitness)
- **In simple terms, the goal of ergonomics is to prevent physical discomfort and injuries caused by work.**

Elements of the BNL Ergonomics Program- Planning and Evaluation

- Supervisors, work planners, and workers identify tasks with significant potential for ergonomic injury and contact a [qualified ergonomics evaluator](#) or the Ergonomics Subject Matter Expert (SME) to determine if a formal ergonomics evaluation is required.
- This evaluation may be triggered by:
 - New or significant changes to a workplace or workstations
 - Large scale or non-routine work that involves handling or moving equipment and supplies
 - Observing operations for the presence of risk factors, including:
 - Heavy lifting
 - Contact stress
 - Forceful exertion
 - Vibration
 - Awkward postures (including twisting, reaching, and turning)
 - Repetitive movements
 - Staff comments or suggestions
 - Injury experience and injury record.

Elements of the BNL Ergonomics Program- Reporting

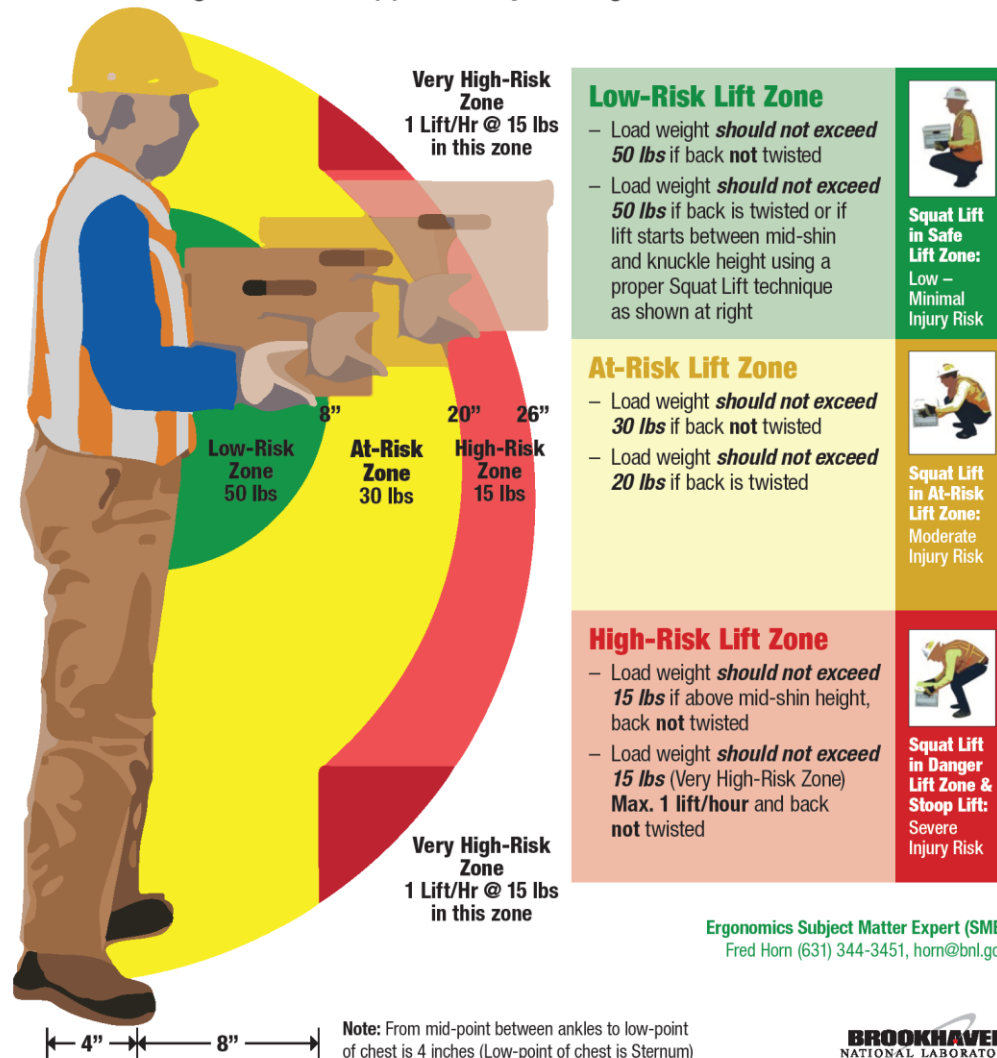
- Staff promptly notify their supervisor of any work that creates prolonged musculoskeletal disorders.
- Symptoms of musculoskeletal disorders include:
 - Shooting or stabbing pains (especially in arms, legs, or the back)
 - Burning, soreness, or stiffness of muscles
 - Tingling or numbness (in hands or legs)
 - Color change in extremities (especially fingers or toes turning pale)
 - Swelling or inflammation of joints or extremities
 - Loss of mobility or decreased range of motion
 - Pressure or tightness in muscle groups
 - Decrease in feeling/sensation (especially in hands, fingers, and legs)
- The supervisor assists the worker in obtaining medical attention from the [Occupational Medicine Clinic \(OMC\)](#).
- If applicable, the OMC initiates the request for a formal evaluation by a [qualified ergonomics evaluator](#).
- **Note:** Staff may consult directly with the [OMC](#) if they are uncertain a symptom is related to their work.

Sample of Risk Factors and Corrective Actions

Risk Factor	Potential Corrective Action
Carrying >25 pounds manually for more than 25 feet	Use material cart
Extending arms more than 24 inches from the body while holding more than 5 pounds.	Get closer or use support
Maintaining static postures (crouching, kneeling, etc.) for long periods	Frequent Repositioning
Need for maximum force to push or pull object with body.	Use a mechanical device
Lifting an object above shoulder height.	Use lift to reposition body
Reaching above shoulder height repeatedly.	Use lift to reposition body
Using high hand force (pinching an unsupported object)	Use tool or aid to reduce pinch force
Working with wrists bent repeatedly	Reposition the work or work station
Working with neck bent forward/backward	Reposition the work or work station
Working with tools with constant vibration to hands, arms, and upper extremities	Use vibration dampening materials.

BNL Ergonomics Lifting Guidelines for Two-Handed Lifts

Frequency of Lifting shall not exceed an average of 12 lifts per hour at stated weights unless approved by an Ergonomics Evaluation



Ergonomics Subject Matter Expert (SME)
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For More Information...

- See R. Filler message on 12/8/25 and link to video: [Rubbermaid](#)
- Manual Material Handling workshop at BNL being planned for early 2026
- Reach out to ESSHQ group with questions or concerns.