

# What is a MSD?

A musculoskeletal disorder (MSD) is a soft-tissue injury caused by sudden or sustained exposure to repetitive motion, **force**, vibration, and **awkward positions**. NIOSH

# 12,700

Total MSDs **due to ladders**  
vs. **740 MSDs due to stairs**  
2011-2016, Bureau of Labor Statistics

# \$90,000

Average cost of a MSD-related  
workers' compensation claim  
Center for Disease Control

# 12

Median days missed for MSD  
vs. **8 for non-MSD injuries**  
Bureau of Labor Statistics

Percent of MSDs that  
could be prevented

Center for Disease Control

# 100%

ALTERNATING TREAD STAIR OSHA  
1910.25(f)

VS. FIXED LADDER OSHA  
1910.23(d)

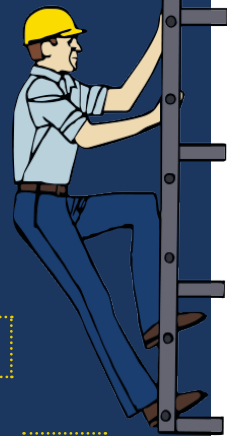


- ✓ Forward-facing design
- ✓ Hands are free to carry items
- ✓ Neutral body posture
- ✓ Less energy exerted
- ✓ Hand contact not required
- ✓ Increased tread depth

- ✗ Device-facing design
- ✗ Three-point contact required
- ✗ Flexed body posture
- ✗ More energy exerted
- ✗ Hand force and torque required
- ✗ Increased risk of foot slips

AWKWARD  
POSITION

FORCE



## LAPEYRE STAIR

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