

Worker musculoskeletal pain and discomfort: What are we learning from workers?

This is a part of a series of research briefs reporting the findings from the Thoroughbred Worker Health and Safety Study. **The goal of this brief is to describe musculoskeletal discomfort (MSD) among thoroughbred farm workers and work factors that may influence worker risk for developing musculoskeletal discomfort.** All 225 Latino thoroughbred farm workers who participated in the Thoroughbred Worker Health and Safety Study were asked about the frequency and severity of musculoskeletal discomfort and potential work factors associated with this discomfort.

Worker Characteristics



86% Male



40% ≤ Elementary Education



Average years working on horse farms



Average hours working per week

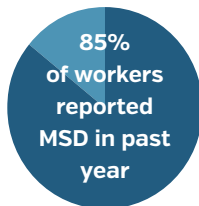


Safety Climate Score [Range 10-40]*

Average Age: 35

*Score of 23 is just below scale midpoint. Safety climate score reveals workers' perceived access to safety instructions, meetings, and equipment; importance of safety to management; and workers' perception of risk at work. Higher scores indicate a safer climate.

Musculoskeletal discomfort (MSD) reported in past year



Upper extremity

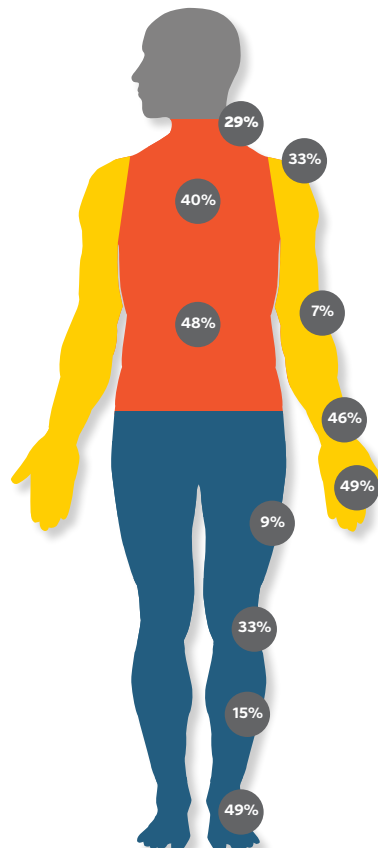
Shoulders = 33%
Elbows = 7%
Wrists = 46%
Hands = 49%

Neck/back

Neck = 29%
Upper back = 40%
Lower back = 48%

Lower extremity

Upper legs = 9%
Knees = 33%
Lower legs = 15%
Ankles/feet = 49%



Thoroughbred Worker Health & Safety Study

WHO? Researchers at the University of Kentucky and University of Maryland, guided by Industry and Community Advisory Councils, funded by CDC/NIOSH

WHAT? Research study to identify farm safety & health challenges, work organization & farms' best practices

WHEN? 2011-2016

WHERE? Thoroughbred Farms

HOW? Interviews with farm representatives & workers

WHY? To improve worker health & safety and reduce costs for farms



Factors Associated with Elevated Musculoskeletal Discomfort

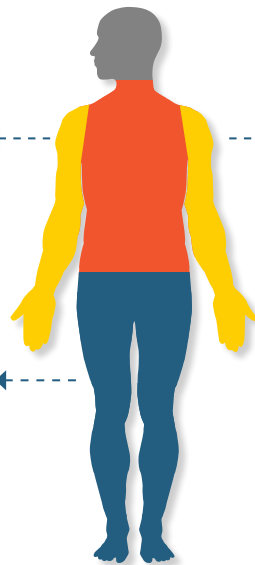
Workers reporting the following conditions experienced greater likelihood of experiencing MSD in the associated locations.

Neck/back

- Those who worked **>48 hours per week** were **1.64X** more likely to have neck/back MSD.
- Those who worked **>9 years on horse farms** were **1.52X** more likely to have neck/back MSD.
- Those who **perceived a poor safety climate** were **1.56X** more likely to have neck/back MSD.

Lower extremities

- **Male** workers were **0.6X** as likely to have MSD in lower extremities.
- Those who **worked >48 hours per week** were **1.5X** more likely to have MSD in lower extremities.
- Those who worked **>9 years on horse farms** were **1.5X** more likely to have MSD in lower extremities.



Upper extremities

- Those who were **≥35 years old** were **1.6X** more likely to have MSD in upper extremities.
- Those who **perceived a poor safety climate** were **2.6X** more likely to have MSD in upper extremities.

Whole body

- Those who **worked >48 hours per week** were **1.7X** more likely to have any form of MSD.
- Those who **worked >9 yrs on horse farms** were **1.9X** more likely to have any form of MSD.
- Those who **perceived a poor safety climate** were **1.5X** more likely to have any form of MSD.

What do these findings mean?

- Musculoskeletal discomfort [MSD] in our sample was high. In fact, Latino Thoroughbred workers experience higher rates of MSD than other types of livestock workers who are already at great risk of MSD.
- Elevated MSD may lead to decreased work productivity, lost time from work, increased risk of injury, and lower perceived quality of life.
- Higher rates of MSD may be due to the unpredictable nature of working with Thoroughbreds and the repetitive nature of workers' tasks.
- Long hours, poor safety climate, and longer tenure on horse farms was associated with greater likelihood of elevated MSD in multiple regions of the body. Reducing the frequency of overtime and improving farm safety climate may help reduce risk of MSD among workers.

Management Tips

- Safety climate was strongly associated with MSD. Ways that you can improve the safety climate on your farm include:
 - Instating safety meetings
 - Ensuring workers receive instruction on safety when hired
 - Praising workers for safe conduct
 - Ensuring safety equipment is available
 - Informing workers of hazards on the job and how to avoid them
- Avoid scheduling workers longer than the typical work week
- Instruct workers how to properly lift and, when possible, adjust the work environment to avoid awkward postures
- Model behavior that reduces the risk of MSD
- Alternate workers among tasks throughout the day to avoid overexertion

Resources

World Health Organization:

Preventing musculoskeletal disorders in the workplace

www.who.int/occupational_health/publications/en/oehtsd3.pdf

Centers for Disease Control and Prevention (CDC)

Health promotion and Musculoskeletal Disorders

www.cdc.gov/workplacehealthpromotion/tools-resources/workplace-health/musculoskeletal-disorders.html

Institute for Work and Health

Preventing Musculoskeletal Disorders [MSDs]

www.iwh.on.ca/msd-prevention

Acknowledgements

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