



Discomfort Survey Results (Sample)

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Overview of the ErgoRisk Online Discomfort Survey

- Discomfort surveys are commonly used in ergonomic programs to identify if musculoskeletal symptoms exist, how widespread they are (prevalence) and how bad they are (severity).
- ErgoRisk's Online Discomfort Survey is based on research¹ that helps identify individuals that are likely to seek medical attention for their work related discomfort.
 - High risk or 'Red Zone' symptoms correlate with individuals that are very likely to seek medical attention for their symptoms
 - Moderate risk or 'Yellow Zone' symptoms correlate with individuals that are somewhat likely to seek treatment; and
 - Low risk or 'Green Zone' symptoms correlate with individuals that are not likely to seek treatment for their symptoms.
- High and Moderate Risk symptoms indicate workers that may be at higher risk for reporting a 'work related injury' or 'first aid' since they are reporting symptoms related to work and at a level that correlates with seeking further medical attention (the criteria for a first aid).

Interpreting the Results

As an employer, it is important to understand the prevalence and severity of MSI symptoms. If left untreated, MSI symptoms can progress from discomfort through to chronic conditions. Recognizing and addressing these symptoms early is a cornerstone of effective MSI prevention. The following graphs provide an overview of the basic trends that were identified based on the feedback provided using the ErgoRisk Online Discomfort Survey.

Executive Summary

- 77 online discomfort surveys were completed between March 21, 2008 and March 29, 2008. This represents a high response rate of 73%.
- Over 50% of the workers report symptoms of MSI related to their work.
- Over 30% of the workers that completed the survey reported symptoms in the 'red' or 'yellow' zones. This indicates that approximately one in three workers is currently experiencing a level of discomfort related to their work where they are likely to seek medical treatment..
- A small portion of the workforce (5%) indicates they have discomfort that substantially affects their ability to work.
- 4% (3 individuals) reported that they are experiencing work related discomfort in more than 6 areas of their body. 24% (17 individuals) reported that they are experiencing work related discomfort in 3 to 5 body areas.
- The top 5 areas of the body where workers report MSI symptoms are:
 - Mid/Low Back – 26%
 - Neck – 21%
 - Right shoulder – 18%
 - Left shoulder – 16%
 - Right Wrist – 15%
- Low back and neck discomfort were the most frequently reported symptoms relating to the spine.
- Shoulders and wrists were the parts of the arms which have the highest level of discomfort.
- There is a higher prevalence of symptoms in the right arm than the left arm (42% vs 31%).

¹ Marley and Kumar (1996) developed a tool which compared the frequency and severity of symptoms reported with the likelihood that employees would seek medical attention. The tool works by attributing a classification of "Red", "Yellow" or "Green" based on the combination of frequency and severity of symptoms reported during the workstation assessment.

Results

How many people completed the Online Discomfort Survey?

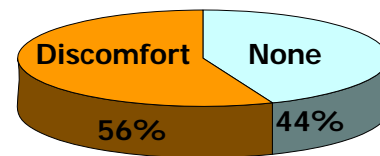
- 77 surveys were completed between March 21, 2008 and March 29, 2008.

How many people have discomfort?

- Proportion of people with discomfort.

What does this mean?

- Over 50% of the workers report symptoms of MSI related to their work.

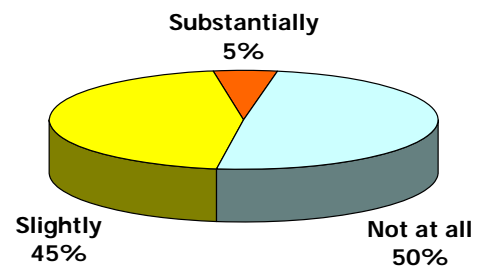


Is discomfort affecting work?

- Proportion of people indicating how much discomfort affects work.

What does this mean?

- A small portion of the workforce indicates they have discomfort that substantially affects their ability to work.

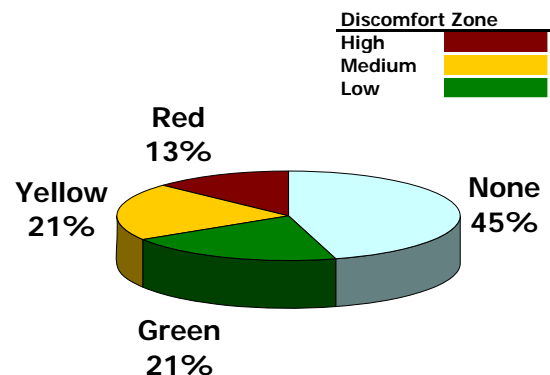


What is the highest level of symptoms reported per person?

- Using the definitions outlined in the overview, this graph shows the maximum zone of discomfort reported by those who completed the survey.

What does this mean?

- Over 30% of the workers that completed the survey reported symptoms in the 'red' or 'yellow' zones. This indicates that approximately one in three workers are currently experiencing a level of discomfort related to their work where they are likely to seek medical treatment.

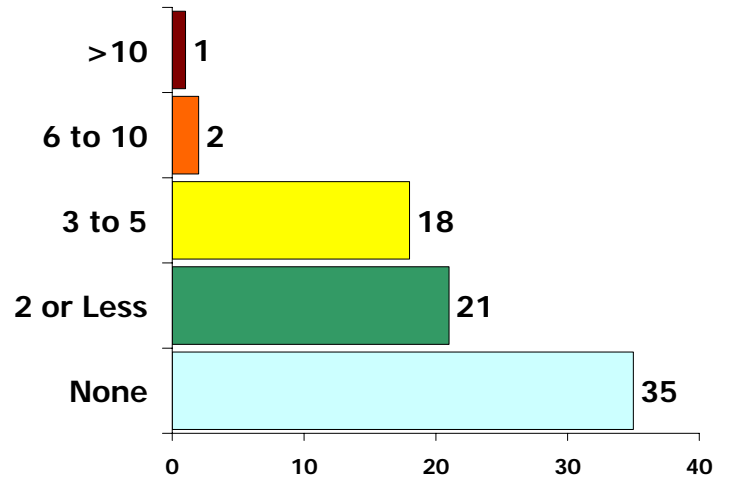


How many parts of the body hurt per person?

- This bar graph shows the number of areas of discomfort (vertical axis) each person reported.
- The bottom axis and the number at the right of each bar indicate how many people reported that number of affected body areas.

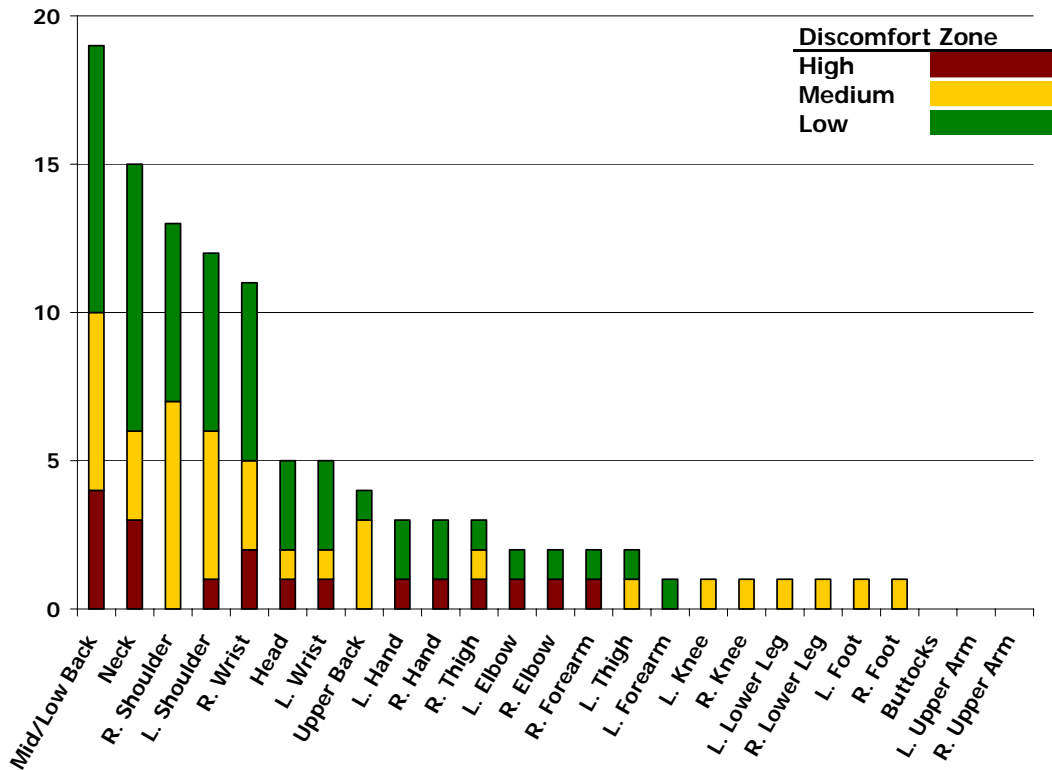
What does this mean?

- 4% (3 individuals) reported that they are experiencing work related discomfort in more than 6 areas of their body
- 24% (17 individuals) reported that they are experiencing work related discomfort in 3 to 5 body areas.



Body Parts Prioritized by Greatest Discomfort

- This graph shows how many people reported discomfort in each part of the body.
- The data is prioritized by the number of people reporting discomfort in each area and not necessarily by the severity of the discomfort. The body part in the leftmost column was the most common area for discomfort. Symptom severity is indicated by the colour of the bars and height of the bars indicates the number of people having some kind of discomfort in that body part.
- Jobs should be reviewed to identify ergonomic hazards and risk factors which may contribute to discomfort in these areas of the body.

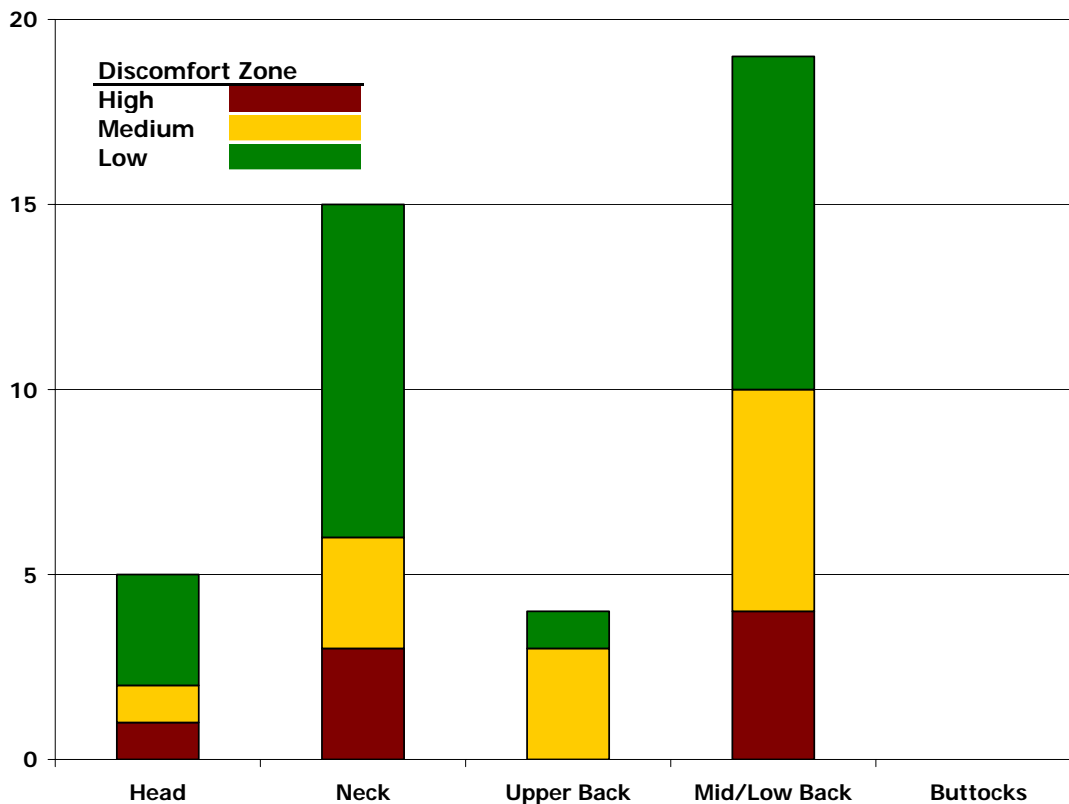


Top 5 Body Areas Employees Report Discomfort

1. Mid/Low Back – 26%
2. Neck – 21%
3. Right shoulder – 18%
4. Left shoulder – 16%
5. Right Wrist – 15%

Discomfort by Body Part – Trunk

- Symptom severity is indicated by the colour of the bars and height of the bars indicates the number of people having some kind of discomfort in that body part.



This graph highlights the discomfort reported along the trunk of the body. The spine is commonly the area of the body with the most symptoms.

Based on the responses to the online survey, there are two important points:

Number 1 Area of Concern: Mid/Low Back

- Back discomfort is a common area of discomfort (up to 80% of general population experiences back pain at some point in their life).
- Middle and low back discomfort rank number one for the number of people reporting symptoms (prevalence) and for the severity of the symptoms reported.
- Common factors contributing to back pain may include: overall chair fit & adjustment, employee posture, and prolonged sitting without change of position.

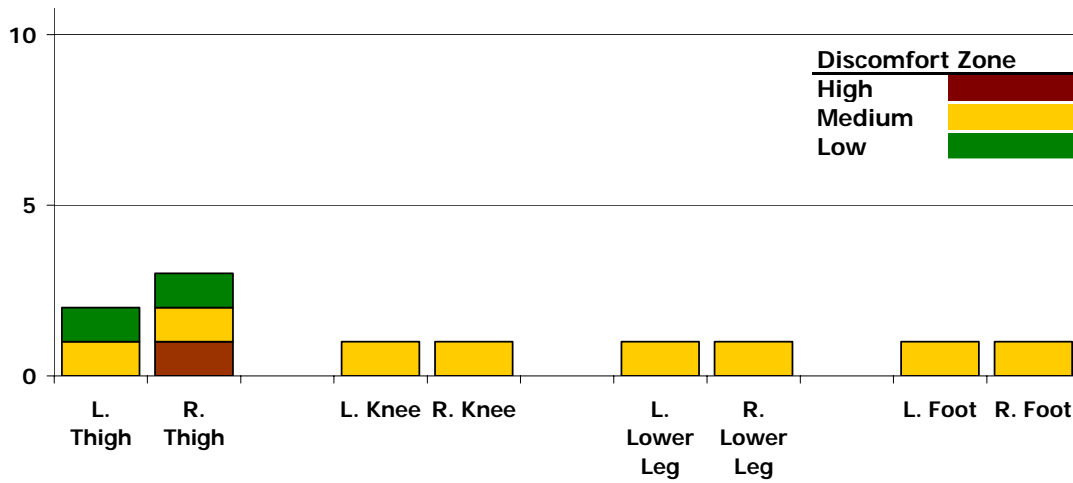
Number 2 Area of Concern: Neck

- Neck symptoms were also reported at a high prevalence but at a slightly lower severity (6/15 individuals reporting symptoms in the 'yellow' or 'red' zone).
- Common factors associated with neck pain may include: monitor position, monitor height, monitor depth, typing ability and general work posture.

Initiatives to encourage workers to review common factors may help to reduce MSI symptoms. Workers should also be encouraged to take frequent breaks throughout the day in order to minimize the development of fatigue and discomfort.

Discomfort by Body Part – Lower Extremity

- Symptom severity is indicated by the colour of the bars and height of the bars indicates the number of people having some kind of discomfort in that body part.

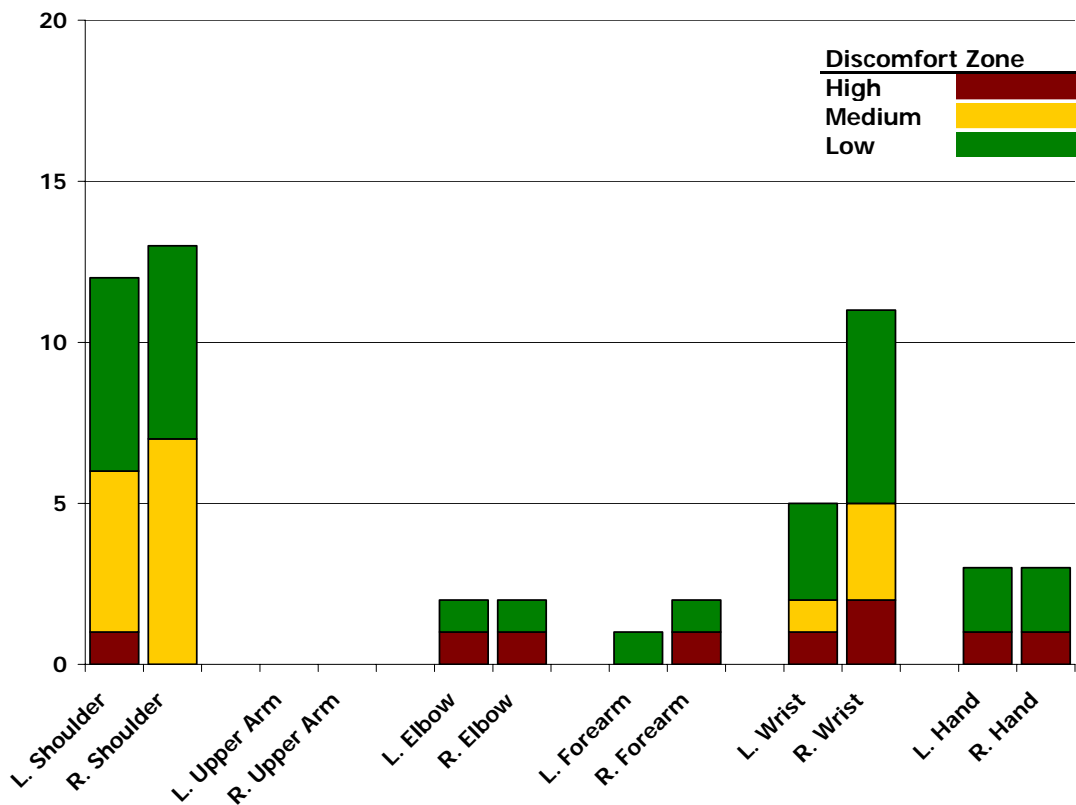


- The prevalence of lower body symptoms is low. Only 1-3 individuals reported symptoms in each area.
- Common factors associated with lower body discomfort may include: poor seating (in particular improper seat depth or height) and prolonged sitting without change of position including driving.

Initiatives to encourage workers to review common factors may help to reduce MSI symptoms. Workers should also be encouraged to take frequent breaks throughout the day in order to minimize the development of fatigue and discomfort.

Discomfort by Body Part – Upper Extremity

- Symptom severity is indicated by the colour of the bars and height of the bars indicates the number of people having some kind of discomfort in that body part.



- There is a higher prevalence of symptoms in the right arm than the left arm (42% vs 31%).
- Many people are right handed and are therefore more likely to perform more tasks on with this side of the body.
- Right wrist and shoulder symptoms are common at computer workstations since the right wrist and arm are typically working for longer periods than the left. This is primarily since the mouse is often used for approximately 50% of the time and the keyboard for approximately 50%. The result is that the right arm is responsible for up to 75% of the work (50% mouse plus ½ of 50% keyboard (25%)). For this reason, proper workstation set-up and input device technique is important and should be reinforced.
- Shoulder discomfort is common at computer workstations that require workers to reach to their input devices (e.g. off to the side, at another level or forward on the desk) or their documents frequently. This was one of the hazards identified during some of the ergonomic assessments.

Initiatives to encourage workers to review these factors may help to reduce MSI symptoms. Workers should also be encouraged to take frequent breaks throughout the day in order to minimize the development of fatigue and discomfort.

Employee Comments from Online Survey Responses

Desk set-up	<ul style="list-style-type: none"> • Discomfort is likely a result of improper desk/computer desk set-up. • Desk is not comfortable to work at. Not enough space. • I think my chair is too large for me. • Present work station forces poor posture, causing tiredness in back & shoulders. Also difficult to access key board, tray does not extract sufficiently to allow easy access. Frequently place the keyboard on desk top just to get positioned differently & to access k-board easier. • My supervisor has offered to buy what I would need to improve comfort. I just haven't decided what I need or what would work best. • We have been provided with very good equipment; it just needs to be set up better. • I think I need a newer computer station and desk.
Repetition	<ul style="list-style-type: none"> • Sitting for so long and looking at a computer is very difficult. • Discomfort depends on the amount of time spent at computer workstation typing on keyboard. • Lots of computer work
Eye Strain	<ul style="list-style-type: none"> • I also experience eye strain or some blurry vision after a full day of computer use and especially doing mapping operations.
Environment - Heat	<ul style="list-style-type: none"> • The office gets hot and stuffy around 1 to 2 pm on sunny days which can tend to give me a head ache. I have a fan that helps pass cool air. This occurs mostly in the summer
Wrist/hand comments	<ul style="list-style-type: none"> • I believe my discomfort is the beginning of carpel-tunnel in my right wrist. • I am not even sure the elbow pains are related to my workstation. Sometimes I get "pins and needles" in my hands, and sometimes my knees and other joints ache. • Just my mouse hand wrist gets sore when on the computer lots in a day.