

USER GUIDE

Multi-Task Ergonomic Risk Evaluation Tool **MERET**



2026, version 2.0

Developed by: A. Dolhy Ergonomics Inc.

www.dolhy.ca/MERET

SUPPORTED FROM A GRANT BY THE
Research and Workplace Innovation Program of the
Workers Compensation Board of Manitoba

Introduction

The Multiple-task Ergonomic Risk Evaluation Tool (MERET) was developed as a method to evaluate musculoskeletal injury risk for jobs with multiple tasks. The evaluation tool may be used for both pre-production and existing jobs to assess ergonomic issues for individual tasks and the cumulative effects. The MERET was designed and validated in Manitoba, Canada and supported by a grant from the WCB of Manitoba. The MERET quantitatively assigns three scores per task and a cumulative Job Score based on worker ratings of the three most difficult tasks. There are 13 categories that provide an evaluation of risk. The three task outcomes include a Cumulative Score, High Force Score and a Force and Body Position Score. There is also a Cumulative Job Score based on an algorithm of the three tasks.

The MERET was created to address the need to evaluate jobs with multiple tasks that may not occur repetitively, daily or occurs in uncontrolled environments. Beside assessing existing jobs with workers experiencing musculoskeletal issues, the MERET can also be used by those in charge of designing or putting together workstations, tools and equipment to determine if a musculoskeletal issue potentially exists. This tool can then be used to provide direction on corrective actions and to estimate the impact of controls.

The MERET is a web-based Evaluation Program in which drop down menus are chosen based on the observation of a job or the production information of a planned job and its tasks. No information is collected or stored on the web site. The user may download a pdf of the results.

The following is a quick guide on how to perform an analysis using the MERET. The outcomes of the MERET include a Cumulative Score, a High Force Score and a High Force/Body Posture Score for each task and a cumulative Job Score. The outcomes of the MERET were validated for 85 jobs in various industries in Manitoba with a positive predictive value of 96%, a negative predictive value of 64%, a sensitivity of 89% and a specificity of 92%. The outcomes were compared to a full ergonomic assessment conducted by a certified professional ergonomist. The reliability of the MERET tool was not tested. However users are encouraged to practice and learn the MERET on jobs in which they have experience in order to improve their scoring accuracy.

Collect Information about the Job

The first step in the evaluation process is to familiarize yourself with the job. The two pathways of using this evaluation tool is by observing a task that is currently in production or to review documentation of any planned changes to existing tasks or completely new tasks. The MERET works both for an existing job and one that is theoretical. Identify in your own notes if the evaluation is based on documentation or observations and if the measurements are estimates or actual measurements. A brief task analysis, background information about the job and interviews with those performing the task can be inputted into the Task Information and Description text box. Many 'Jobs' have multiple tasks that could vary in duration and demands, scheduling/seasonal or unexpected changes in production.

Ergonomic assessments become difficult when picking a single task to evaluate or looking at the whole or entirety of the Job. Research and experience indicate that a combination of worker input and ergonomic judgement is best when three of the worst tasks are assessed together. Workers have a vast knowledge of tasks, body positions or job demands that are particularly stressful, fatiguing or injurious. The ergonomic knowledge, experience and training of the assessor should also be combined with worker input to select the worst three tasks. There are many resources available to teach assessors how to conduct an ergonomic evaluation, www.dolhy.ca for a list of resources.

Become Familiar with the 13 Risk Categories

There are 13 risk categories that make up the content of the MERET. The assessor may use a printed version of the Worksheet and later input data into the web site program. In focus groups, it was better to print a hard copy or the Worksheet especially when first learning to use the MERET. The Worksheet contains detailed information regarding the 13 Risk categories, the options for picking the input for each category and specific ergonomic guidelines to help the assessor make a decision. The online tool does not store inputs. A pdf Results Sheet can be downloaded which provides the scores but not the individual category inputs. It is recommended to create a database for your workplace to store the evaluation inputs. An example of the first risk category is shown in figure 1. Access to Work involves selecting the element that best corresponds to each of the three selected tasks.

MERET Calculator

Supported by a grant from the WCB of Manitoba, RWIP program 2024.
Instruction Manual and Case Studies – coming soon.

Access to Work

- Front - Worktable neutral zone
- Overhead
- Far reaches or one posture issue
- Knee height
- Floor level
- Underneath, lying on back
- A combination of 2 or more posture issues

Task 1

Front - Worktable neutral zone

Task 2

Front - Worktable neutral zone

Front - Worktable neutral zone

Overhead

Far reaches or one posture issue

Knee height

Floor level

Task 3

Front - Worktable neutral zone

Perform the Evaluation

The MERET was set up to evaluate a Job from different perspectives. This allows for flexibility in conducting an ergonomic assessment. The first assessment method is to view the Job in its whole or complete form for the three worst tasks. That is, from beginning to end with averaging forces, frequency of motions and postures over the length of the process. The second assessment method is to focus on one ergonomic issue, a specific body area that is a concern or a sub-task that is the most concerning. For example, a task is conducted at a worktable for most of the process cycle, however a smaller percentage of time, the task is performed overhead. This method allows the assessor to pick 'Overhead' even though it may only make up 10% of the whole task. The assessor will also adjust the repetition and duration inputs. In another example, the Manipulation Force has an average force of 20lbs over the entirety of the task. In this method, the assessor can pick the highest Manipulation Force, say >50lbs even though it occurs rarely, and adjust the duration, repetition, body position etc., accordingly. A third Assessment method allows for a single task to be evaluated three different ways such as different worker techniques, methods or body mechanics. This allows the assessor to compare differences. The Job Score calculation would be invalid since it is a comparison evaluation. See Example 1: case Study #1: Laboratory Work for additional guidance.

Evaluation of Scores

There are three evaluation scores for each task and a cumulative Job Score for the Job.

For each individual task, there is a:

Cumulative Score	15 or greater
High Force Score	5 or greater
Force and Body Position Score	8 or greater

A Job Score of the three tasks is also evaluated with a score of 20 or greater as indicating a higher risk.

The MERET evaluates the risk of musculoskeletal injury as High, Moderate or Low based on a combination of outcome scores.

Low Risk

A Low Risk job has a Job Score of <20 and no individual task with 2 scores above their limits.
For example;

Workers rated the top 3 tasks by demands and discomfort.

MERET Scores Risk Increases if:	Task 1 Sitting Workstation	Task 2 Standing Workstation	Task 3 Inspections
Cumulative ≥ 15	13.1	10.4	8.3
High Force ≥ 5	6.5	7.5	4.3
HF / Body Position ≥ 8	4.9	5.6	3.2
Score for the Job ≥ 20	19.0		

Low Risk **RISK LEVEL : LOW** High Risk

Moderate Risk

A Moderate Risk job has two outcomes;

1. Lower than 20 Job Score

A Job Score <20 with at least one task with 2 or 3 outcomes score over the limits; for example;

MERET Scores Risk Increases if:	Task 1 Screeding	Task 2 Carry Pails	Task 3 Driving
Cumulative ≥ 15	8.4	8.8	9.3
High Force ≥ 5	3.8	5.5	5.5
HF / Body Position ≥ 8	2.8	8.3	4.1
Overall Cumulative ≥ 20	19.4		

RISK LEVEL

The Risk level is now considered Moderate.



2. Higher than 20 Job Score

A Job Score >20 with no individual tasks with 2 or 3 scores above limits; for example

MERET Scores Risk Increases if:	Task 1 Serve Food	Task 2 Load Drinks	Task 3 Push Cart
Cumulative ≥ 15	12.9	10.6	11.6
High Force ≥ 5	7.8	8.0	9.0
HF / Body Position ≥ 8	5.8	6.0	6.8
Overall Cumulative ≥ 20	21.0		



High Risk

A High Risk job has a Job Score ≥ 20 and at least 1 task with 2 or 3 scores above the limits; for example

Workers rated the top 3 tasks by demands and discomfort.			
MERET Scores Risk Increases if:	Task 1 Serve Food	Task 2 Load Drinks	Task 3 Push Cart
Cumulative ≥ 15	14.9	10.6	13.6
High Force ≥ 5	8.6	8	11
HF / Body Position ≥ 8	12.9	6	8.
Score for the Job ≥ 20	23.5		



Additional Resources

Ergonomics: A Guide to Program Development and Implementation

Contains information on 6 key elements of an effective ergonomics program

Small Workplace Ergonomics Resource Guide

Questions and Answers, 20 Common Hazards, Forms and Checklists

Small Business Ergonomic Case Studies: Hazards, Assessments, Solutions, Costs and Benefits

32 case studies of before and after ergonomic problems

Workplace Job Accommodations: Solutions for Effective Return to Work

Key principles and solution options for accommodating musculoskeletal injuries

Safe Work for an Aging Workforce

40 case studies of older worker issues arranged according to the Spot the Hazard, Assess the Risk, Find a Safer Way and Everyday

Acknowledgements

This evaluation tool is based on an original pre-production checklist developed by Motor Coach Industries, Winnipeg, MB. The validity and reliability study was conducted in the province of Manitoba with 80 case jobs from various sectors. All had multiple tasks with uncontrolled environments. Case studies can be viewed at www.dolhy.ca/MERET.

The material and guidance contained in the Multiple task Ergonomic Risk Evaluation Tool is not intended as legal or professional advice and is intended as an initial review of a task. The adoption and/use of the information and outcomes may not meet the needs, requirements or obligations of workplace safety programs, individual ergonomic assessments or other preventative measures.

Any program errors, software bugs or suggestions for improvement can be communicated to Andrew Dolhy CPE, A. Dolhy Ergonomics Inc., dolhy@shaw.ca (204) 299-9132 www.dolhy.ca/MERET

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WORKSHEET

Multi-Task Ergonomic Risk Evaluation Tool - **MERET**

Refer to the MERET User Guide version 2.0 for instructions
www.dolhy.ca/MERET

Task Information and Description:

Assessor and Date:

Is the evaluation for a pre-production task?	
Or is it currently in production?	

Rank sub-tasks based on worker input along with production information:
Frequency, Duration, Time Pressures, etc.

1	
2	
3	
4	
5	

Evaluation: Assess the job by ranking the 3 tasks with the most reported discomfort, fatigue or difficulty. The focus may also be on a specific ergonomic issue or region of the body as long as the frequency and duration categories do not exceed the total job duration. Each of the 3 tasks may be used to evaluate potential corrective actions.

Access to Work

Front, Worktable, or Neutral Work Zone	around waist height and within 22" reach
Overhead	above head height, >68"
Far Reach or one Posture issue	the arm is almost fully extended, reach more than 24"
Around Knee Height	below knuckle height to above ankles, ~4"-28"
Floor level	below 4"
Underneath/Blind	body is in an awkward position to see
A Combination of 2 of more Posture Issues	per body joint, e.g. low back rounded and twisted

The design of the workstation which dictates the worker's ability to perform or conduct the task.

Task 1	Task 2	Task 3	Comments/Corrective Action?

Motion, Speed, Static Work

Smooth Motion and Regular Pauses in Work
Smooth Motion and moderate, steady pace
Smooth Motion and Quick Pace
Rapid, Jerky Motions with Moderate Pace
Rapid, Jerky Motions with quick pace
Little Movement, hold > 30 seconds or long duration static postures
Observe the worker or consider the tasks involved from labour standards.
Would/are workers performing the same motions for more than half the task cycle or duration of the process?
What would the speed or pace of movement be/is?
Is there a lack of variety in the task which would change the worker's body positions?

Task 1	Task 2	Task 3	Comments/Corrective Action?

Manipulation Force

<2lbs	None	Barely noticeable or relaxed effort
3-8 lbs		
9-15 lbs	Light	Noticeable or definite effort
16-22 lbs		
23-29 lbs	Hard	Obvious effort
30-36 lbs		
37-43 lbs	Very Hard	Substantial effort
44-50 lbs		
>50 lbs	Near Maximal	Uses shoulder or trunk for force

The effort required to perform the task. Are the weights or force measurements known?
May include power grip, pinch grip, manipulation effort to accomplish a task.

Task 1	Task 2	Task 3	Comments/Corrective Action?

Duration of the Process*

>10 hrs
8-10 hrs
4-8 hrs
3-4 hrs
1-3 hrs
30min-1 hr
10-30 min

A process is a series of actions or steps taken in order to achieve a particular end.
The rater is to choose a duration based on an entire shift or the actual cycle of each process.
**Must be consistent with how the rater chooses the Process Repetition category.*

Task 1	Task 2	Task 3	Comments/Corrective Action?

Process Repetition

1-2 times
3-5 times
6-10 times
16-24
25-30
>30 times

The number of times a task repeats itself within the process time. Can be cyclic or the same body motions over repeated cycles. Tasks are usually performed without any rest break or substantial interruption by any other task.

Task 1	Task 2	Task 3	Comments/Corrective Action?

Duration of Exertion

<1sec
1-3 sec
4-9
10-20
21-30
31-45
46-60
61-90
91-120
>121

The time required to exert a force, hold onto an object or stay in a specific body position. From quick rapid motions of less than one second to long duration static holding of more than 121 seconds. Corresponds to the Manipulation Force Category and Process Repetition Category.

Task 1	Task 2	Task 3	Comments/Corrective Action?

Vibration

None
Vibration <2hours with anti-vibration PPE
Vibration <2hours
Vibration >2hrs with anti-vibration PPE
Vibration > 2hrs

Subjective assessment of hand arm or whole body vibration. This involves exposure to mechanical vibration affecting the whole body or hand-arm. The rating is for the whole shift, cumulative. Vibration protective equipment includes anti-vibration gloves, anti-vibration grip tape for tools or anti-vibration seat pads. The amount of vibration can be quantitatively measured with an accelerometer and compared to guidelines.

Task 1	Task 2	Task 3	Comments/Corrective Action?

Contact Stress

None Occasional
Use knee as a hammer Use hand as a hammer
Constant
None Occasional

Resting a body part on a hard or sharp edge. Mostly the wrist, palm or elbow areas. Includes using the hand or knee as a hammer.

Task 1	Task 2	Task 3	Comments/Corrective Action?

Pinch Grip

None

Pinch grip and Poor Posture

Pinch grip with >2 lbs of force

>2 lbs, poor posture and wrist flicking - Flicking includes rapid wrist twisting or jerky awkward motions.

Squeezing the fingers together. Examples include a key grip, pen grip or folding clothes. Greater than 2 lbs of force is like using a pen to write. Poor posture is any wrist bending while pinch gripping.

Task 1	Task 2	Task 3	Comments/Corrective Action?

Vision

None

Glare (reflection or direct)

Hard to See (shadows or blocked view)

Will the worker be able to see their work? Glare can be from overhead lights, windows or reflection off surfaces. Visual issues may also include small font on screens or documents, shadows or hidden or hard to see tasks. Do workers adopt poor postures in order to see better?

Task 1	Task 2	Task 3	Comments/Corrective Action?

Temperature Issues

None

Subjective Cold conditions, short duration

Subjective Heat conditions, short duration Either Temperature Issue and long duration

None

Subjective assessment of work tasks that may be perceived as cold, hot or other climate conditions. Both heat and cold are associated with increased risk of developing musculoskeletal issues by different injury mechanisms.

Task 1	Task 2	Task 3	Comments/Corrective Action?

Time Pressure

None or Effective Recovery Time between Tasks

Occasional Time Pressure or Little Recovery from Job Demands between Tasks

Continuous Time Pressure or Workers Rate the Job Demands as High or Difficult to Sustain Over Time

Time pressure tasks include: meeting strict deadlines, bottle neck processes, time sensitive processes, or when workers are unable to rest and recover between processes. Tasks that have a high duty cycle.

Task 1	Task 2	Task 3	Comments/Corrective Action?

Psycho-Social Issues

a risk reduction effect, decreases psychosocial stress or risk

a neutral risk or undetermined effect

an increased risk based on the psychosocial issues present

Considering the multitude of psychosocial issues, does this task involve organizational or system factors that can reduce the effects of musculoskeletal strain or increase worker's stress and inability to recover from physical strain? Consider the combination of job strain and job decision latitude as perceived by the workers, leadership and expectations, the amount of psychological and social support, the safety culture, workload management strategies and overall trust between workers, managers and the workplace as a whole.

Task 1	Task 2	Task 3	Comments/Corrective Action?

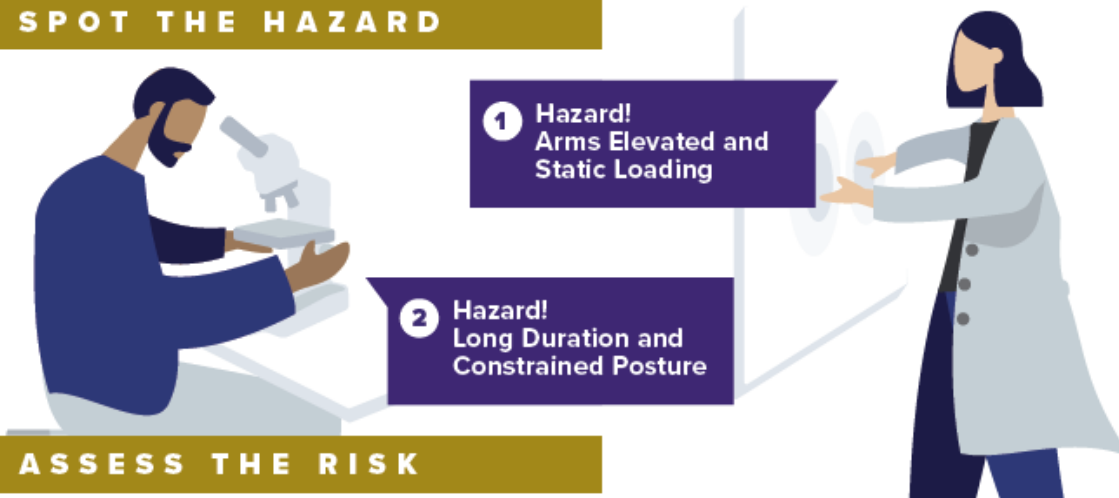
Example 1: Laboratory Work

CASE STUDY 1

Laboratory Work

Multiple tasks with varying demands and durations

SPOT THE HAZARD



ASSESS THE RISK

Ergonomic risks are evaluated by assessing a task several different ways – for this task the risk level is moderate due to the cumulative effects of the job

Workers rated the top 3 tasks by demands and discomfort.

MERET Scores Risk Increases if:	Task 1 Microscope Work	Task 2 Pipet Work	Task 3 Fume Hood Work
Cumulative ≥ 15	13.1	10.0	9.6
High Force ≥ 5	8.5	4.3	7.0
HF / Body Position ≥ 8	6.3	6.3	5.2
Score for the Job ≥ 20	20		

Low Risk

RISK LEVEL : MODERATE

High Risk



This job was assessed to be a 'moderate' risk. For task 1 there is one indicator 8.5 and for Task 3 there is one indicator of an issue. Both are acceptable, however the Overall Cumulative Score for the job was 20 which is greater than 15.

FIND A SAFER WAY



For this case study, a wrist rest for the workbench and more leg clearance was implemented for microscope work and an anti-fatigue mat and an awareness of duration with microbreaks was implemented for fume hood work.

MERET Scores Risk Increases if:

Cumulative ≥ 15

High Force ≥ 5

HF / Body Position ≥ 8

Task 1 Microscope Work

10.8

8.5

6.3

Task 2 Pipet Work

10.0

4.3

6.3

Task 3 Fume Hood Work

8.1

5.5

4.1

Overall Cumulative ≥ 20 14.5

RISK LEVEL

The Risk level is now below the recommendation of 15.

Before



After



DISCOMFORT

Workers Reported Discomfort has been reduced by 3 points.

Before



After



Results: This job is now assessed to be low risk since the cumulative effect for the job is now below 15.



Cost Benefit Analysis: Pay Back Period = 2 months

A cost benefit analysis included the cost of the equipment and down time to change the workstation layout. The benefits included less time to perform the work since there is less fatigue and soreness. Workers can move on to other tasks.

The 13 Categories with Inputs

Access to Work

- Front - Worktable neutral zone
- Overhead
- Far reaches or one posture issue
- Knee height
- Floor level
- Underneath, lying on back
- A combination of 2 or more posture issues

Task 1

Front - Worktable neutral zone ▼

Task 2

Far reaches or one posture is... ▲

Front - Worktable neutral zone

Overhead

Far reaches or one posture issue

Knee height

Floor level

Task 3

Front - Worktable neutral zone ▼

Reach is >22" and elbows winging out.

Motion / Speed / Static Work

- Smooth Motion and regular pauses in work
- Smooth Motion and moderate, steady pace
- Smooth Motion and quick pace
- Rapid, Jerky Motions with moderate pace
- Rapid, Jerky Motions with quick pace
- Little Movement, hold > 30 seconds or long duration static postures

Task 1

Little Movement, hold > 30 s... ▼

Task 2

Smooth Motion and quick pa... ▼

From observation, >30 seconds of holding time

Task 3

Little Movement, hold > 30 s... ▲

Rapid, Jerky Motions with quick pace

Little Movement, hold > 30 seconds or long duration static postures

Manipulation Force

- <2lbs none
- 3-8lbs, light
- 9-15lbs
- 16-22lbs, somewhat hard
- 23-29 lbs
- 30-36lbs hard/obvious effort
- 37-43 lbs
- 44- 50 lbs, hard substantial effort
- >50lbs, near maximum

Task 1

less than 2lbs to none ▲

less than 2lbs to none

3-8lbs, light

9-15lbs

16-22lbs, somewhat hard

23-29 lbs

Task 2

less than 2lbs to none ▼

All efforts are less than 2 lbs of force

Task 3

less than 2lbs to none ▼

Duration of Process

- More than 10hrs
- 8-10hrs
- 4-8hrs
- 3-4hrs
- 1-3 hrs
- 30min-1 hr
- 10-30min
- Less than 10min

Task 1

1-3 hrs

Task 2

1-3 hrs

Task 3

1-3 hrs

Each task varies, yet for this assessment, each was given 1-3 hrs. Other evaluations may include long durations times experienced by workers.

Process Repetition

- 1-2 times
- 3-5
- 6-10
- 11-15
- 16-24
- 25-30
- More than 30

Task 1

25-30

Task 2

25-30

Task 3

25-30

This is also an average for each task. Alternatively, the number of efforts can be higher or lower but must correspond to the Duration of Process.

Duration of Exertion

- Less than 1sec
- 1-3 sec
- 4-9
- 10-20
- 21-30
- 31-45
- 46-60
- 61-90
- 91-120
- More than 121

Task 1

21-30

Task 2

1-3 sec

Less than 1sec

1-3 sec

4-9

10-20

21-30

Task 3

10-20

Length of time to hold or squeeze.
An average of 2 workers.

Vibration

- None
- Less than 2hrs with equipment*
- Less than 2hrs
- More than 2hrs with equipment*
- More than 2hrs

Task 1

None

Task 2

None

Task 3

None

* Equipment: Anti-Vibration PPE

Contact Stress

- None
- Occasional
- Use knee as a hammer
- Use hand as a hammer
- Constant

Task 1

Occasional

Task 2

Occasional

Task 3

None

Leaning on the worktable edge.

Pinch Grip Tools and Objects

- none
- pinch grip and poor posture
- pinch grip with >2 lbs of force
- >2 lbs, poor posture and wrist flicking or rapid motions

Task 1

pinch grip and poor posture ▼

Task 2

pinch grip and poor posture ▼

Task 3

pinch grip and poor posture ▲

none

pinch grip and poor posture

pinch grip with >2 lbs of force

>2 lbs, poor posture and wrist flicking or rapid motions

Observation of wrist posture while working

Vision Issues

- None
- Glare (reflection or direct)
- Hard to see (shadows, blocked view)

Task 1

None ▼

Task 2

None ▼

Task 3

None ▼

Temperature Issues

- None
- subjective Cold conditions, short duration
- subjective Heat conditions, short duration
- Either temperature issue and long

Task 1

None ▼

Task 2

None ▼

Task 3

None ▼

Time Pressure

- None or effective recovery time between tasks
- Occasional time pressure or little recovery from job demands between tasks.
- Continuous time pressure or Workers rate the job demands as high or difficult to sustain over time

Task 1

Occasional time pressure or l... ▼

Task 2

Occasional time pressure or l... ▲

Task 3

Occasional time pressure or l... ▼

None or effective recovery time between tasks

Most experiments must be completed with time constraints

Occasional time pressure or little recovery from job demands between tasks

Psycho-Social Issues

Considering the multitude of psychosocial issues, does the task involve;

- a risk reduction effect, ie, decreases stress
- a neutral effect; undetermined risk change
- a risk increase effect, ie, raises stress

Task 1

a neutral risk or undetermin... ▼

Task 2

a neutral risk or undetermin... ▼

Task 3

a neutral risk or undetermin... ▲

a risk reduction effect, decreases psychosocial stress or risk

a neutral risk or undetermined effect

increases the risk based on the

The safety culture is rated good with trust between supervisor and workers yet there are organizational stressors that increase stress.

Results

Task 1: Cumulative Score

13.13

Task 2: Cumulative Score

10.00

Task 3: Cumulative Score

9.63

Risk increases when the task Cumulative Score is > or = 15.

Task 1: High Force Score

8.50

Task 2: High Force Score

4.25

Task 3: High Force Score

7.00

Risk increases when task High Force Score is > or = 5.

Task 1: High Force/Body Position Score

6.38

Task 2: High Force/Body Position Score

6.38

Task 3: High Force/Body Position Score

5.25

Risk increases when task HF/Body Score is > or = 8.

Cumulative Score for the Job

The Job is a hazard if 2 or more scores per task are above each threshold.
It is a hazard when the Cumulative Score for the Job is > or = 20

Cumulative Job Score was rounded up to 20.

Cumulative Score for the Job

19.66

Workers rated Pipet work to be the second most fatiguing/difficult. Stressful yet scored low. This may be due to performing Pipet work after working in the Fume Hood which had a higher High Force Score.

Corrective Actions

Workers and the health and safety committee decided to provide a laboratory forearm arm support to reduce contact stress and remove a cabinet drawer in order to provide more leg space so workers can sit more comfortably. An anti fatigue mat was provided for standing at the Fume Hood and workers were encouraged to take quick breaks before fatigue is felt (workers tend to take a quick stretch break after fatigue is felt).

Motion / Speed / Static Work

- Smooth Motion and regular pauses in work
- Smooth Motion and moderate, steady pace
- Smooth Motion and quick pace
- Rapid, Jerky Motions with moderate pace
- Rapid, Jerky Motions with quick pace
- Little Movement, hold > 30 seconds or long duration static postures

Task 1

Little Movement, hold > 30 s... ▼

Task 2

Smooth Motion and quick pa... ▼

Task 3

Smooth Motion and moderat... ▲

Smooth Motion and regular pauses in work

Smooth Motion and moderate, steady pace

Smooth Motion and quick pace

Long Duration static postures were reduced for Fume Hood Work

Contact Stress

- None
- Occasional
- Use knee as a hammer
- Use hand as a hammer
- Constant

Task 1

None ▼

Task 2

Occasional ▼

Task 3

None ▼

Contact Stress was eliminated for Microscope Work

Psycho-Social Issues

Considering the multitude of psychosocial issues, does the task involve;

- a risk reduction effect, ie, decreases stress
- a neutral effect; undetermined risk change
- a risk increase effect, ie, raises stress

Task 1

a risk reduction effect, decre... ▼

Task 2

a neutral risk or undetermin... ▼

Task 3

a risk reduction effect, decre... ▼

These changes lead to workers indicated psycho-social issues to be improved and overall stress is lowered for Microscope and Fume Hood tasks

The MERET Scores are lower and now rated as LOW RISK and workers rated their discomfort as improved from a 7 to 4 on a 10 point scale.

MERET Scores Risk Increases if:	Task 1 Microscope Work	Task 2 Pipet Work	Task 3 Fume Hood Work
Cumulative ≥ 15	10.8	10.0	8.1
High Force ≥ 5	8.5	4.3	5.5
HF / Body Position ≥ 8	6.3	6.3	4.1
Overall Cumulative ≥ 20	14.5		

RISK LEVEL

The Risk level is now below the recommendation of 15.

Before				19					
After		14.5							

DISCOMFORT

Workers Reported Discomfort has been reduced by 3 points.

Before						7			
After				4					