



WORKPLACE HEALTH ASSESMENT

Prepared by:

**DBC ASIA HEALTHCARE SDN BHD
(DBC Malaysia)**





Workplace Health Assessment (WHA)

“Preventative care at workplace”

WHA INTRODUCTION

- Education on musculoskeletal health talk and occupational safety awareness program covers the whole picture of musculoskeletal disorders. This mainly emphasizes on the back, neck, shoulder, knee and other musculoskeletal problems. Besides managing and preventing musculoskeletal disorders, creating awareness is currently the most powerful strategy to reduce the risk of injury. However, some problem occurs in a sudden without any specific reason. Therefore, the need to improve the posture and related exercise specifically for this area of musculoskeletal problem is important to restore functional capabilities and to prevent reoccurrence of injury and other musculoskeletal problem.
- Ergonomics is the science of fitting workplace conditions and job demands to the capabilities of the working population. Effective and successful "fits" ensure high productivity, avoidance of musculoskeletal illness and injury risks, and increased satisfaction in the workforce.
- A workplace health assessment is a process of gathering information about the factors that support or hinder the health of employees at a particular workplace and identifying potential opportunities to improve, create awareness or addressing them. It helps to identify the current picture of health at a company as well as ways to improve it that can potentially increase productivity, decrease absenteeism, and control health care costs for both employees and the organization



WHA OBJECTIVES

- To create awareness and understanding in occupational safety and health.
- Implement programs emphasizing on postural awareness, injury prevention, and behavioural changes.
- Provide current evidence-based information on personal and community health issues.
- Create an environment where each individual is pro-active to adopt a healthy lifestyle.
- Provide knowledge and skills to improve and maintain health that may enhance occupational performance.
- To instil the sense of responsibility that health awareness is about daily habits and making lifestyle changes for the better.



What is workplace health assessment?

- A workplace health assessment is a process of gathering information about the factors that support or hinder the health of employees at a particular workplace and identifying potential opportunities to improve, create awareness or addressing them
- A workplace health assessment helps to identify the current picture of health at a company as well as ways to improve it that can potentially increase productivity, decrease absenteeism, and control health care costs for both employees and the organization



How do we conduct workplace health assessment?

- i. On-Site
- ii. Employee fills in online questionnaire
- iii. Employee undergoes assessment:
 - . Strength test using ActivForce device
 - . Muscle-fat analysis using IN-BODY machine
 - . Lower back screening using EMG device
- iv. Consultation post screening
- v. Screening result emailed to employees
- vi. Overall analytics of screening sent to person in-charged

WHA Work Flow

1. Sample Online Questionnaire

HEALTH & SAFETY
WORKPLACE ASSESSMENT

Company: Test A Date: 2nd October 2019

Name _____

Department _____

Id _____

Email _____

Gender _____

Work Activities (Average Time)

Hours Sitting
12 Hours / Day 83 Hours / Week

Hours Standing
12 Hours / Day 83 Hours / Week

Hours Walking
12 Hours / Day 83 Hours / Week

Hours at Computer Station

Work Surface

1.1 Is there adequate space for required task & equipment?
 Yes No N/A

Comments _____

1.2 Does the workstation height fits the task (writing, reading, precise work - 5cm above elbow)?
 Yes No N/A

Comments _____

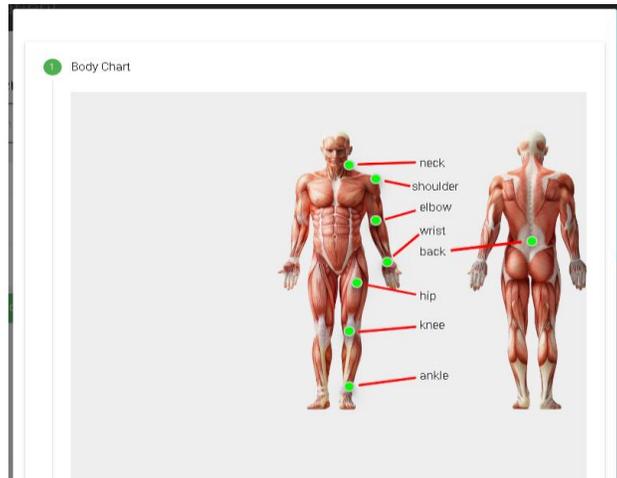
1.3 Is the workstation height appropriate for typing (elbow height with arms dangling on the sides)?
 Yes No N/A

Comments _____

1.4 Are heavier work tasks just below elbow height?
 Yes No N/A

Comments _____

2. Assessment & EMG Screening



2 Remarks

Remarks

Muscle Imbalance:

Upper Left Right

Middle Left Right

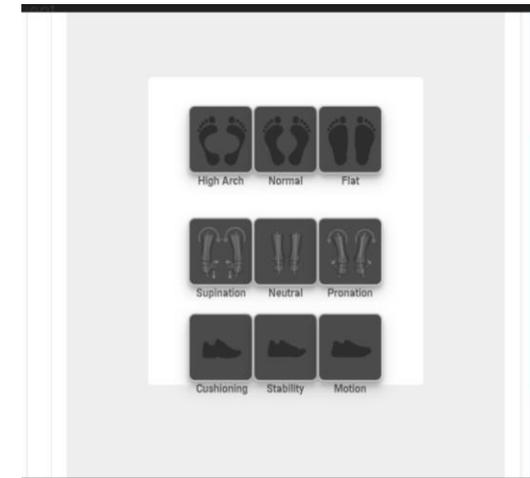
Lower Left Right

Scoliosis:

Lumbar Left Right

Thoracic Left Right

Multifidus Over Activity: No



3 Foot Profile

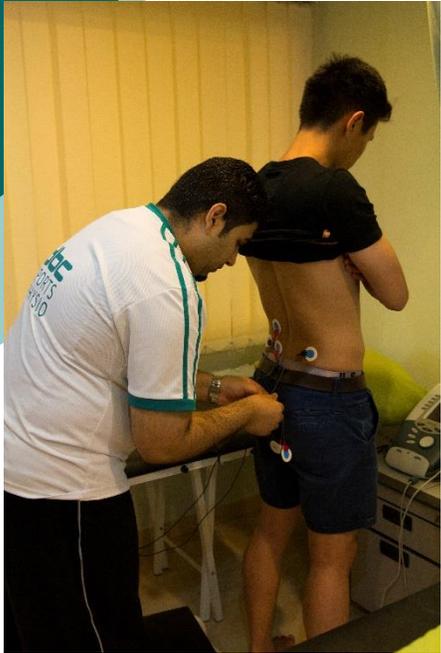
4 EMG Screening

Lower Back Screening

EMG Reading	Left	Right
Standing	Insert Num	Insert Num
Bending	Insert Num	Insert Num
Extending	Insert Num	Insert Num
Sitting	Insert Num	Insert Num

* >6 Muscle tightness

EMG Screening:



Strength Test:



Muscle-Fat Analysis



InBody

[InBody270]

InBody

TEL:02-501-3939 FAX:02-501-2716

ID	Height	Age	Gender	Test Date & Time
Jane Doe	156.9cm	51	Female	2015.05.04. 09:46

Body Composition Analysis

Total amount of water in body	Total Body Water (L)	27.2 (27.0 - 33.0)
For building muscles	Protein (kg)	7.1 (7.2 - 8.8)
For strengthening bones	Minerals (kg)	2.74 (2.49 - 3.05)
For storing excess energy	Body Fat Mass (kg)	22.1 (10.6 - 16.9)
Sum of the above	Weight (kg)	59.1 (45.0 - 60.8)

Muscle-Fat Analysis

	Under	Normal	Over
Weight (kg)	50-70	70-110	110-200
	59.1		
SMM (kg)	70-80	80-110	110-170
	19.3		
Body Fat Mass (kg)	40-60	60-100	100-150
	22.1		

Obesity Analysis

	Under	Normal	Over
BMI (kg/m ²)	10.0-15.0	15.0-25.0	25.0-35.0
	24.0		
PBF (%)	10.0-15.0	15.0-20.0	20.0-30.0
	37.5		

Segmental Lean Analysis

1.81 kg	1.89 kg
90.2 %	94.1 %
Normal	Normal
16.7 kg	16.7 kg
92.2 %	92.2 %
Normal	Normal
4.61 kg	4.70 kg
72.8 %	74.3 %
Under	Under

Segmental Fat Analysis

1.7 kg	1.7 kg
190.0 %	185.9 %
Over	Over
11.9 kg	11.9 kg
239.8 %	239.8 %
Over	Over
2.9 kg	2.9 kg
127.7 %	127.4 %
Normal	Normal

Body Composition History

Weight	65.3	63.9	62.4	61.8	62.3	60.9	60.5	59.1
SMM	20.1	20.0	19.7	19.7	19.8	19.7	19.8	19.3
PBF	41.3	40.7	39.2	39.0	39.4	38.6	37.8	37.5

Research Parameters

Fat Free Mass	37.0 kg
Basal Metabolic Rate	1168 kcal
Obesity Degree	112 % (90 - 110)
Recommended calorie intake per day	1397 kcal

Calorie Expenditure of Exercise

Golf	104	Golfball	112
Walking	118	Yoga	118
Badminton	134	Table Tennis	134
Tennis	177	Bicycling	177
Boxing	177	Racketball	177
Mountain Climbing	193	Jumping Rope	207
Aerobics	207	Jogging	207
Soccer	207	Swimming	207
Japanese Fencing	295	Racketball	295
Squash	295	Table Tennis	295

Results Interpretation QR Code

Scan the QR Code to see results interpretation in more detail.

Impedance

	RA	LA	TR	RL	LL
Z(m)20u/s	345.0	338.5	23.4	286.6	296.0
100u/s	322.0	335.5	21.2	273.2	282.6

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3. Post Screening Employee Results

Hours at Computer Station
DAY : 12 Hours
WEEK : 83 Hours

Overall Summary

Neck Score : 2
Wrist Score : 0
Elbow Score : 0
Back Score : 0
Knee Score : 0
General Score : 1
Final Score : 78%

RESIDUAL RISK RATING	ACTION REQUIRED
HIGH (H) (>81%) Possibility of serious injury occurring	The activity must not take place at all. You must identify further controls to reduce the risk rating.
MEDIUM (M) (41%-80%) Possibility of significant injury or over 3 day absence occurring	If it is not possible to lower risk further, you will need to consider the risk against the benefit. Monitor risk assessments at this rating more regularly and closely.
LOW (L) (0-40%) Possibility of minor injury only	No further action required.

4. Emailed Post Screening Recommendation and Result To Employee



Dear [redacted],

Thank you for being part of our "Preventative care at work place". We are proud to be able to help the community through early detection and prevention into chronicity.

The screening results attached is the first step of understanding your condition. If you have any queries, feel free to contact us. Further comprehensive assessment can be done in one of our centres to manage your condition.

We hope you gained some insights of what DBC Physiotherapy does. Do like us on Facebook for tips on managing musculoskeletal conditions.

Warm Regards,
DBC Physiotherapy

5. Overall screening analytics with recommendation sent to person in-charge



Good day,

We would like to thank you for giving us the opportunity in conducting the Workplace Assessment and Lower Back Screening for the staff of [redacted]. Here we would like to share the results of the assessment and screening conducted that day.

A total of 62 of your staff had participated in the assessment. Based on the Workplace Assessment conducted;

- 50% were in the LOW risk category
- 30% were in the MEDIUM risk category
- 20% were in the HIGH risk category

Based on the lower back screening;

- 10% were having severe muscle imbalance, which may lead to scoliosis
- 55% were over-using their back, which may lead to lower back pain
- 35% were in the normal range

The good news is:

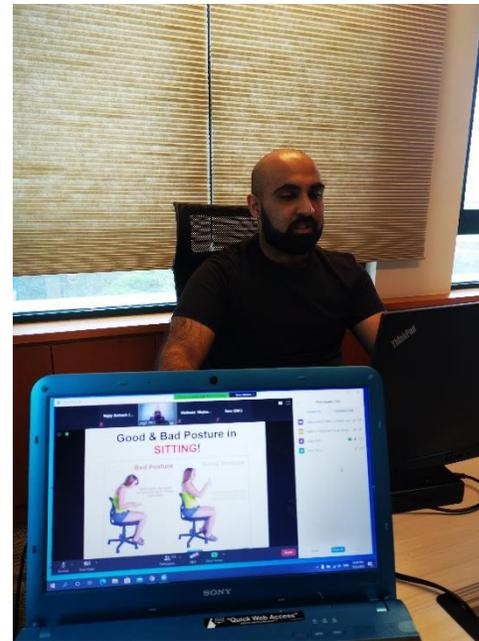
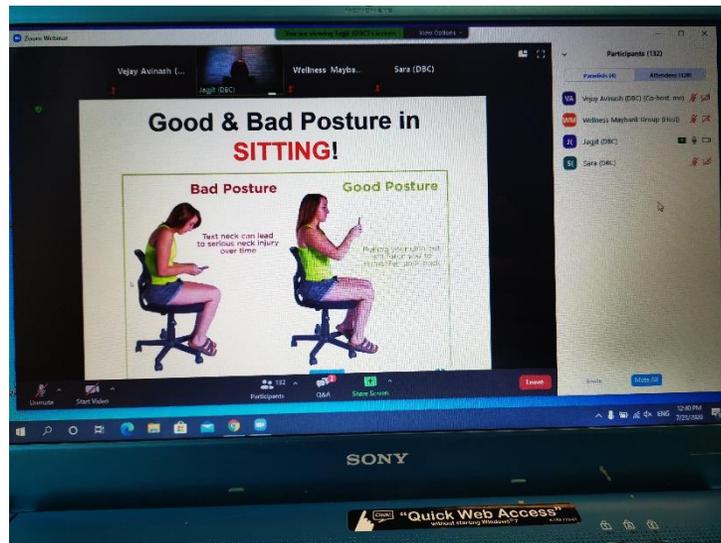
80% of those surveyed are at low or moderate risk of developing chronic lower back pain. However there is potential of moderate risk surveyors developing high risk musculoskeletal disorders

Based on our findings the incidence of back, shoulder, neck & CTS (carpal tunnel) are higher. Hereby below are few suggestions from DBC

- Ergonomics assessments: As part of the preventive care, we would recommend those with irritation at more than 2 body parts to organize an ergonomic assessment on their workstations.
- Organize weekly/monthly stretching or relaxation exercises to be held in office workspace.
- Repeat the lower back screening again next year.

Virtual health talk

During this pandemic , our team has been conducting virtual health talks to cater corporate needs on injury prevention at work and home.





What is the benefits of WHA to organisations?

- Decreased absenteeism
- Reduced turnover of staff.
- Improved productivity
- Reduced healthcare costs
- Reduced risk of elevated health risks



What is the benefits of WHA to Individuals?

- Reduced health risks.
- Access to health information.
- Improved performance and work environment.
- Better mental health.
- Reduce musculoskeletal injuries.



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