



# MUSCULO-SKELETAL HEALTH SURVEY REPORT

## March 2009

### SYNOPSIS

The report provides compelling evidence that corporate organisations need to move heaven and earth to protect the musculo-skeletal health of their staff - if they're to make huge savings on their workers compensation arrangements, plus have staff who are pain free. (Musculo-skeletal dysfunction is one of the major contributors to presenteeism.)

There's an absolute epidemic of musculo-skeletal dysfunction in our workplaces. In our 2007 Health Climate Survey, 55% said they had some sort of musculo-skeletal dysfunction. In our 2009 survey it was similar; 54% of people gave themselves a score of 5 or less on the current condition question.

This March 2009 report is based on the results of 953 people who've completed the Musculo-skeletal Risk Factor profile in 2008 and 2009. You can view it on the next page.

To put things in perspective.

#### Those who train

Of the 953 people surveyed, few people are doing any strength or flexibility training, but those that do feel better.

1. Only 17% of people had a reasonable strength training program. Their average total score on the Musculo-skeletal Risk Factor profile was 74. The average score for current condition was 6.6.
2. Only 10% had reasonable flexibility training program but their average total score on the profile was 75. The average score for current condition was 6.5.
3. Only 5% of people had a half decent strength and flexibility training program and their average total score on the profile was 84. The average score for current condition was 7.3.

#### Those who don't train

The average total score of the 57% of people who had no strength or flexibility training program at all was a miserable 46. The average score for current condition was 5.0.

Only 28% of people gave themselves a score of 7 or more out of 10 for current condition.

It sticks out like the proverbial. You can close up all the musculo-skeletal research institutes and put down the glasses. Just implement a regular and systematic strength and flexibility training program in your workplace.

At Miller Health we can show you how to willingly engage your staff in such a project.

# MUSCULO-SKELETAL RISK REPORT - March 2009

## MUSCULO-SKELETAL RISK FACTOR PROFILE

This is a simple, test of your risk of musculo-skeletal dysfunction. If you're already in pain the results may indicate what the problems are. The test does not involve expensive gadgetry. You can measure your progress toward becoming stronger and more flexible at any time. It will take you less than 10 minutes.

1. How would you rate the **current condition** of your musculo-skeletal system?

	Painful									Good		
Points	0	1	2	3	4	5	6	7	8	9	10	<input type="text"/>

2. **Body composition.** How close are you to your **ideal weight**?

Record the number of kilos you are over your ideal weight? .....

>20Kg	20	18	16	14	12	10	8	6	4	2Kg	<input type="text"/>
0	1	2	3	4	5	6	7	8	9	10	

3. **Leg Strength – number of full squats in 30 seconds** .....

	Poor							Good				
	Less than 4			4	6	8	10	12	14	15	<input type="text"/>	
	0			4	5	6	7	8	9	10		

4. **Abdominal strength** - situps in 30 seconds..... Start with feet flat and knees up. Sit up so your fingers touch the bottom of your kneecaps.

	Poor									Good		
	<3	3	5	7	10	13	15	17	20	23	25	<input type="text"/>
	0	1	2	3	4	5	6	7	8	9	10	

5. **Upper body strength** - pushups in 30 seconds..... Men on toes, women on knees.

	Poor									Good		
	<3	3	5	7	10	13	15	17	20	23	25	<input type="text"/>
	0	1	2	3	4	5	6	7	8	9	10	

6. **Extent flexibility** - sit and reach. Seated, with legs outstretched.

	Poor							Good				
				Fingers				Palm			Wrist	<input type="text"/>
	0	1	2	3	4	5	6	7	8	9	10	

7. **Mobility** - sit down and stand up in 30 seconds. How many times can you sit down on the floor, (legs out straight) and stand up? .....

	Poor									Good		
		1	2	3	4	5	6	7	8	9	10	<input type="text"/>
	0	1	2	3	4	5	6	7	8	9	10	

8. **Shoulder function** – subjective wall test

Stand with your back to the wall. Place your hands in the 'surrender' position with elbows, forearms, wrists and fingers flat on the wall.

	Poor									Good		
	0	1	2	3	4	5	6	7	8	9	10	<input type="text"/>

9. **Strength training behaviour** Do you have a regular and systematic strength training program? Sessions per week. ....

	Poor								Good				
	0			1				2			3	<input type="text"/>	
	0	1	2	3	4	5	6	7	8	9	10		

10. **Flexibility training behaviour** Do you have a regular and systematic flexibility training program? Sessions per week. ....

	Poor							Good				
	0			1			2			3	<input type="text"/>	
	0	1	2	3	4	5	6	7	8	9	10	

The pass mark is 70. The lower the score the higher the risk of dysfunction.

**TOTAL**

### **THE RISK - of dysfunctions being treated as work-related injuries.**

I've said many times that the risk of the personally-generated musculo-skeletal dysfunctions being treated as work-related injuries is extremely high in this country.

If people are not strong or flexible and if they are more than 15 Kg overweight your organisations' workers compensation arrangements are at serious risk.

There is a compelling reason for all organisations to have in place a regular and systematic workplace strength and flexibility training program. 10 minutes a day may be enough for most staff. For those at risk your organisation will need to allow more time for a **prehab program**.

For those currently on rehab programs there is a compelling reason for your organisation to adopt the **Formula 1 Rehab** methodology. You want them doing the things sports people do to get themselves back on track as soon as is humanly possible. You can't afford to have people lolling around at home on the couch eating Delta Cremes and going to the physio once a week.

#### **Watch out!**

If you are employing new staff who are 15Kg or more overweight and who can't do at least 20 situps, 20 pressups, 20 squats on the trot, watch out! The reasons for establishing a set of physical standards for prospective employees to meet is compelling. The days of fogging up a mirror in a surgery are over. You've got to insist that your staff keep themselves in good shape, other wise you cannot afford to carry their workers compensation insurance.

### **THE RESULTS**

Below is an analysis of the results of the 955 people who took the survey.

#### **CURRENT CONDITION**

**Score/100**

**Exceptionally good nick** - (10/10) - 30 people (.3%) - average total score 73. They're keeping themselves in good shape.

**73**

Only 30 people (.3%) out of 953 gave themselves a score of 10/10. This is an exceptionally low number and says something about the poor musculo-skeletal health of the Australian community.

**Pretty good nick** - Those scoring more than 7/10 - 329 people (35%) - average score was 65.

**65**

These people are keeping themselves in pretty good nick. Most of them don't have a regular and systematic strength and flexibility training program but they are still strong and flexible enough to keep their pelvis and spinal column in good alignment.

**People in pain** - those scoring less than 6/10 - 510 people (54%) - average score 45.

**45**

It sticks out like the proverbial. These people are in poor shape. They are not strong or flexible and they don't have a strength and flexibility training program.

**People scoring 0 for current condition:** - 15 people (.15%) - average total score 26.

**26**

#### **Discussion**

The reasons for implementing a work-place strength and flexibility training program are compelling.

A good predictor of the musculo-skeletal risk posed by your staff is the measure of how strong and flexible they are and whether your organisation has a strength and flexibility training program.

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If you're a manager, make sure you can tell the difference between a dysfunction and a genuine work related injury and be wary, very wary of people who complain that work was to blame for their dysfunction. Also be very wary of doctors who sheet blame home to the workplace; get a second opinion. Go back to your staff member's score on the Musculo-skeletal Risk factor profile. You want to be in the position to prove that the dysfunction was not caused by the workplace; that the demands placed on the staff member were the reasonable demands of a fit and healthy person.

In a nutshell, all staff have a requirement to present themselves in work-fit condition, whether they wield a mouse or a crowbar.

### **BODY COMPOSITION**

	<b>Score/100</b>
<b>Ideal weight:</b> - 192 people (20%) - average total score 65	<b>65</b>
<b>Less than 10Kg over weight:</b> - 508 people (53%) - average total score 61	<b>61</b>
<b>10 - 14 Kg overweight:</b> - 238 people (25%) - average total score 50	<b>50</b>
<b>15 - 19kg over weight:</b> - 82 people (8%) - average total score 40	<b>40</b>
<b>20Kg or more over weight:</b> - 127 people (13%) - average total score 36	<b>36</b>

### **Discussion**

46% of people were more than 10Kg over weight. This is by their own assessment. A few would have erred on the side of leanness!

However once you get to 15 Kg over weight there seems to be a sharp decline in musculo-skeletal health. Being over weight in our culture usually means people don't have a good aerobic exercise program; that's a key reason why they're over weight. The price of over-eating is to do more exercise. Anyone who runs for 40 minutes most days of the week usually looks like a greyhound.

Show me a person who's 15 or more Kg over weight and I'll show you someone who's under-exercised.

And if people don't have an aerobic fitness training program you can bet London to a brick they don't have a strength and flexibility training program either.

### **Strength and flexibility training**

A few people have a strength training program. Hardly anyone has a good flexibility training program. A few people do yoga, but not many.

If you're a manager, particularly of people who sit down all day in an office, and you're keen to reduce musculo-skeletal risk you'd be up for a best practice award if you could get your staff to attend a workplace CrookBack or yoga program a couple of times a week.

Keep in mind that many people who work outside sit down all day too - in trucks, in earth-moving equipment, on mowers ...

**So, being more than 15Kg over weight is a good predictor of future musculo-skeletal dysfunction.**

**Recommendation:** Employ staff who are close to their deal weight - and give great encouragement to those who are over weight to get back over to their ideal weight. It will save you money in the long run.

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### STRENGTH

Score/100

#### Squat test of leg strength

People who did 15 or more squats - 394 people (41%) - average score - 63

**63**

People who couldn't do a squat - 71 people (7%) - average score 30

**30**

#### Situp test of front of body strength

People who did 25 or more situps - 91 people (9%) - average score 72

**72**

People who couldn't do 1 situp - 235 people (25%) - average score 38

**38**

#### Pressup test of upper body and arm strength

People who did 25 or more pressups - 110 people (11%) - average score 75

**75**

People who couldn't do a pressup - 121 (13%) - average score 32

**32**

### Discussion

People who lack leg, front of body and upper arm and shoulder strength are setting themselves up for musculo-skeletal dysfunction.

Improving the strength of these three body segments takes less than 3 minutes a day.

These three key exercises, together with Superman back arches are the exercises that need to be included in the 10 minute workplace exercise program at least 3 times a week.

### Gym program

If your corporate musculo-skeletal health program is successful, some of your staff will start going to the gym off their own bat. Here's the program I do and recommend - involving a few simple exercises:

#### Arms

- push out
- pull in
- push up
- pull down

#### Legs

- extend out
- curl back

#### Front of body

- situps

#### Back of body

- back extension.

This is not rocket surgery. If you do it with a partner the routine will take about 30 minutes.

**Recommendation:** institute a mandatory 10 minute daily strength and flexibility training program in the workplace, three or four minutes of which will involve strength exercises.

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### SHOULDER FUNCTION

Score/100

Those scoring 10/10 for shoulder function - 449 people (47%) - had an average profile score of 60. The average number of pressups they could do was 15.

**60**

Those scoring less than 5/10 for shoulder function - 170 people (18%) - had an average profile score of 37. The average number of pressups they could do was 11.

**37**

Those scoring 0/10 for shoulder function - 24 people (.25%) - had an average profile score of 24. The average number of pressups they could do was 7.

**24**

#### Discussion

Weak shoulder and dysfunctional shoulders go together. You need to protect your staff from shoulder dysfunction otherwise it will definitely be diagnosed by their doctor as a work-related injury.

You can get a copy of the strength and flexibility exercises on this link:

<http://www.globalbackcare.com/>

### STRENGTH TRAINING

People who had a strength training program that involved 3 or more sessions a week - 108 (11%) - had an average score of 77.

**77**

People who did not have a strength training program - 645 (67%) - had an average score of 48.

**48**

#### Discussion

The results speak for themselves.

### FLEXIBILITY TRAINING

People who had a flexibility training program that involved 3 or more sessions a week - 49 people (5%) - had an average score of 80.

**80**

People who did not have a flexibility training program - 606 people (64%) - had an average score of 46.

**46**

#### Discussion

The results speak for themselves.

### FUNCTIONAL MOBILITY

**People who could sit down and stand up 15 or more times in 30 seconds** - 292 people (31%) - average score 68.

**68**

**People who couldn't sit down and stand up:** - 90 people (9%) - average total score 29.

**29**

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### Discussion

It's useful to compare the mobility scores with all the other scores on all the items in the Musculo-skeletal Risk Profile.

Item	High mobility group. Score out of 10	Low mobility group. Score out of 10
Current condition	6.5	4.1
Closeness to ideal weight	8.0	4.3
Leg strength	9.0	5.4
Abdominal strength	6.5	2.5
Upper body and arm strength	7.7	3.0
Flexibility	5.9	2.5
Shoulder function	8.5	5.3

This table will confirm what your intuition has been telling you; people who are overweight, and lacking in strength and flexibility are at great risk of mobility problems. It's not something that's going to be fixed by physiotherapy, chiropractic, surgery or pills.

The \$64,000 question is, 'What are you going to do about it?'

Doing nothing is no longer an option. It costs too much.

### Recommendation

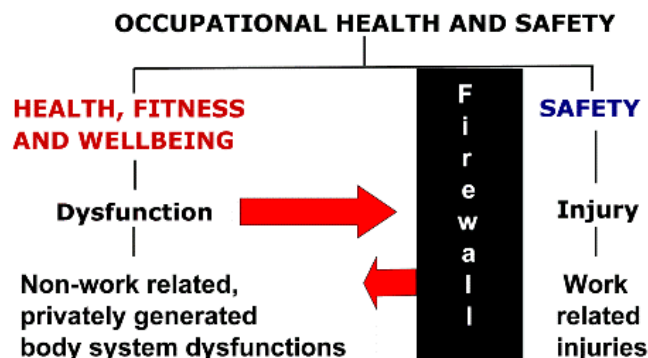
Get on the front foot; move heaven and earth to implement a 10 minute a day strength and flexibility training session for all your staff and the Formula 1 prehab and rehab programs for those at risk and those already dysfunctional.

Read all about the Formula 1 Rehab program on this link, which will either open up directly from this page or by pasting the link into your internet browser.

<http://www.millerhealth.com.au/rehab/index.htm>

## HEALTH, FITNESS AND WELLBEING FIREWALL

Unless you want your workers compensation arrangements to spiral out of control you have to put in place a firewall between the personally generated dysfunctions and the genuine work-related injuries. Do that and you could cut your workers' compensation bill by 80%.



## CONCLUSION

I started off this report by making reference to the epidemic of musculo-skeletal dysfunction.

It's costing some organisations in excess of \$2,000 a person to cover their workers compensation insurance. In some of these organisations people sit down all day in an office. How can you injure yourself sitting down in an office?

## **MUSCULO-SKELETAL RISK REPORT - March 2009**

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Of course you can't. What sitting down does is manifest the dysfunctions, but only if people don't have a regular and systematic strength and flexibility training program.

Because most people don't, you're going to have to implement one.

My feedback confirms that 95% of people who have been through the [Crookback Clinic](#) will willingly agree to take part in a 10 minute strength and flexibility training program at work, in work's time.

Those already dysfunctional and those at risk will willingly agree to attend a couple of CrookBack Clinics a week until they're back in better shape.

You will not have to coerce many people into a program that will make them feel better. On the contrary, they'll thank you for doing them a favour.

### **WHERE WILL THE MONEY COME FROM?**

Short answer; from a reduction in your workers compensation premiums.

If it's currently costing \$2,000 a person for insurance and you can knock that down to \$1,000 a person, there's going to be a lot of change left over from the investment you'll make in getting the program up and running.

### **SUPERVISION**

All you have to do is insert a musculo-skeletal health key performance indicator into the duty statement of every manager and supervisor.

### **WANT TO KNOW MORE?**

Use the contact form at [www.millerhealth.com.au](http://www.millerhealth.com.au) or phone John Miller on (02) 6288 7703.

In the meantime keep your staff tuned, highly tuned; they'll feel better.

*John Miller*

March 2009