Dear Sir / Madam,

I would like to introduce myself and give you an overview of my involvement in Productivity Bootcamp. I have been practicing as a physiotherapist for close to 30 years, treating back pain for over 25 years, and running a private practice in Concord for 23 years. Low back pain management makes up over 50% of my current practice workload. In recent years I have been undertaking extensive research into low back pain, related to both the office environment and the construction industry. A review of my research findings for construction can be found online at:
http://www.cssphysio.com.au/pdfs/LBP-in-Construction-Workers-Highlighted.pdf
A summary of this article is provided with this letter.

Contribution to Injury Prevention

The following summarises the contribution I have made to Productivity Bootcamp:

1. Design of morning warm-up. The value of warming up before strenuous activity is being increasingly recognised in industry. Morning stretching programmes are becoming more common in construction settings. However an effective warm-up does not involve stretching. The programme I have designed is based on the latest research from sports medicine on how to most effectively prepare the body for the tasks to follow.
2. Lectures to trainees. I give two talks to the construction trainees which relate to injury prevention and back care principles. These include a brief description of anatomy and function, discussion of what parts of the job are most risky, and advice on harm-minimisation. I also give the trainees tips on what to do if they suffer an injury. I educate them on bending and lifting techniques, and explain why the traditional adage of "bend your knees not your back" is poor advice.
3. Manager training. I train the Productivity Bootcamp managers how to train their staff in injury prevention. Managers can be taught to look out for warning signs, teach better manual handling skills, and give advice to trainees who have potential or actual musculoskeletal problems.
4. Musculoskeletal screening tests. I am undertaking individual *movement and function screening tests* with new trainees. This will give detailed information on important physical measures relative to 'normal' population data. It will also help to identify potential risk factors for injury, and help in design of individual prevention interventions.
5. Design of an end-of-day strength and stretching programme. This has been designed to target the areas of the body most needing strength and flexibility. The programme has been determined through research and experience, and modified subject to outcomes of the musculoskeletal screening tests.

Plans for the Future:

1. Design a training manual. In conjunction with Paul Breen, a training manual is being put together which will give the workers an illustrated reference guide for the important components of job safety and injury prevention.
2. Research. Paul Breen has already set in motion plans for a database to monitor progress of the workers' in the medium to longer-term. Part of the data will be targeted to monitoring

any injuries sustained and work-time lost. Baseline screening measures recorded at the start of the programme will be compared to measures over the course of the year.

3. Introduction of a standard injury management system. Injuries will inevitably occur. When this happens, I would like to oversee the management and rehabilitation approach, to ensure interventions and advice are consistent, appropriate and evidence-based.

Yours faithfully

[This is also to be included]:

Low Back Pain (LBP) in Construction Workers – Summary

Paul Monaro, Sports & Musculoskeletal Physiotherapist

Full transcript available online: http://www.cssphysio.com.au/pdfs/LBP-in-Construction-Workers-Highlighted.pdf

This overview of LBP in construction workers contains the following information: basic anatomy, causes and types of injuries, risk factors, epidemiology, prevention and management, current interventions, and future directions. In summary:

The incidence of LBP in construction workers is reported as being up to 50% higher than in all other industries [6]. Up to 66% of surveyed workers had experienced LBP in the previous year [41,50], and 30% in the previous week [50]. 77% of apprentice construction workers reported a musculoskeletal injury [85]. Injury risk is influenced not only by work-related factors [17,18,23,67,81], but also by individual and lifestyle factors [13,14,57,76,97,118]. An increasingly sedentary lifestyle is making us all more vulnerable to low back injury (LBI) [57,85]. However many important risk factors are modifiable. With the understanding that most LBI's occur due to an accumulation of stresses, workplace interventions have been designed to minimise these stresses.

Findings particularly relevant to workers new to construction include:

- Endurance factors, postures & work strategies often increase risk for younger workers [16,81].
- Poor 'movement strategies' increase the risk for certain individuals [18,23,67].
- Younger workers are more trainable in correct technique [24,70].

Up to 89% of surveyed workers reported receiving no formal training [50,51] , and when it was provided, 86% felt it was inadequate for the job [51]. Over 90% of surveyed workers desired more information on health and safety, the nature of injury, lifting and handling methods, exercise programmes, and better access to health services at the workplace [41,51,130]. Lifting training is frequently provided, but the techniques currently recommended are questionable [8,12,24,35,40,53,65] and rarely applicable to the workplace [24,30,70,76,130]. The advice to bend the knees not the back is inadequate, potentially harmful [26,37,38,56,72,82] and rarely useful [8,9,31,37,56,79,107,108,121]. Recent evidence suggests effective training and injury prevention relies on 'body mechanics' training [69,70,97,108], repetition, ongoing training, observation and regular feedback [24, 108,121].

Musculoskeletal screening is extensively used in professional sporting populations, to identify potential risks and modify these to prevent injury. It could be argued that workers in construction engage in more strenuous day-to-day activities than many professional sportspeople. The concept of screening workers new to construction is not described in the literature. Screening is currently being undertaken at Productivity Bootcamp, and the results of this intervention will be available over the course of the next 12 months & beyond

All references are listed in the online article.