Soft tissue injuries drop a staggering 75%

By Nathan Deans*

Body Active Consultancy started a pilot project with Sandvik employees at the Lanfranchi mine in Western Australia site during June 2009 which was specifically aimed at reducing the incidence of musculo-skeletal sprain and strain injuries by a minimum of 50%.

This program ran until October 2009 and comprised several interventions – including a number of specific customised educational packages, various ergonomic workplace assessments, a wide range of musculo-skeletal task analyses (MSTA), a warm-up for work program, evaluations of aches pains and discomforts (APD) as well as tracking actual injury statistics.

Initial baseline information was obtained through the application of a manual handling perception map and the collection of self-reported APDs in conjunction with the injury statistics provided to BAC by Sandvik's management for the previous 12 month period from June 2008 to June 2009.

The information provided by these methods indicated priority concerns for the low back, shoulders, neck, feet/ankles and knees.

Subsequently, this data was critical in determining what specific customisations were applied to the educational packages, toolbox training sessions and the warm-up for work intervention.

Ergonomic workplace assessments were completed for the data entry and maintenance planners. As both positions were classified as high end chair users, they required specific detail and attention to setting up correct and comfortable workstations to reduce the stresses associated with excessive chair use.

These kinds of working positions are risky for the hands and wrists, shoulders as well as the upper and lower back.

Several minor adjustments were made and recommendations were provided to management which had either been addressed or were in the process of being looked at.

MSTAs were performed for six specific and distinct job positions, including underground fitters, workshop fitters, auto electricians, storemen, administrators and LV fitters.

The results clearly demonstrated the body areas with the highest risk of musculo-skeletal sprain or strain injury were the low back, shoulders and wrists. This mimicked, to a large extent, the initial self-reported APD data.

Focus determined

As a result, the topics selected for the educational packages included manual handling, the low back and the neck, while the warm-up for work initiative included a specific emphasis on lower back and shoulder exercises as demonstrated by the stretch cards which were issued to all employees as part of the program.

During the four-and-a-half month period that BAC was on site at Lanfranchi, only two soft tissue injuries were recorded. Both were considered minor, and this represented a reduction of soft tissue injuries of 75% when compared to the 12 month period prior to the consultancy's arrival on site. This far exceeded the initial target of a 50% reduction.

As with all pilot projects of this nature, caution must be taken not to lose this initial impetus and to maintain these positive affects through careful integration of ongoing programs and interventions aimed at maximising the sustainability of these initial gains.

A workshop posture with high risk elements to the hands, wrists and shoulders.

**Deans is in charge of BAC's research and design arm.*