

## Back Pain in the Workplace

### Introduction

Back pain is a common problem among working adults. More than 1 in 4 working adults report current back pain [1]. Some episodes of back pain may be precipitated by physical job demands, but both work-related and non-work related episodes of pain can contribute to work absences, and some workers may experience problems continuing or resuming normal job tasks. While most back pain is not medically serious, the experience of pain can be aversive and self-limiting, and back pain can lead to occupational challenges and disruption. This fact sheet summarizes evidence about back pain in the workplace.

### Prevalence and Course

Both acute episodes of back pain and primary chronic back pain (> 6 months) are common among working age adults, both males and females. Surveys of manual material handling workers suggest a one-year back pain prevalence of 25% for back pain lasting more than 7 days, 14% for back pain requiring medical attention, and 10% for back pain requiring time away from work [2]. After an acute episode of back pain, a majority of individuals are able to return to normal function within several weeks, but in approximately 10 percent of cases, acute back pain can transition to a more chronic problem lasting more than 6 months [3]. After an initial episode of back pain, recurrent episodes of back pain are common, with recurrence estimates as high as two-thirds within 12 months of back pain recovery [4]. In the case of primary chronic back pain, workers may be offered more extensive diagnostics, therapeutic or palliative treatments, employer coordination, or occupational rehabilitation services. Biopsychosocial treatment for subacute or primary chronic back pain is generally considered to be the most effective approach to improve function and prevent long-term work disability [5, 6].

### Workplace Risk Factors for Back Pain

Certain types of physical job demand increase the risk for back pain onset, but back pain can be experienced across all industries and occupations. Physical job tasks associated with back pain onset include awkward postures, sudden task disruptions, fatigue, heavy lifting, outdoor work, hand movements, and frequent bending and twisting [7-11]. Psychological demands that increase risk for back pain are low supervisor support, stressful monotonous work, rapid pace work, job insecurity, work-family imbalance, and exposure to hostile work [7-11]. Occupations reporting the highest rates of back pain include nursing, transportation, construction, warehousing, and landscaping [1].

### Primary Prevention in the Workplace

In medium- and high-income countries, considerable efforts have been made to prevent the onset or exacerbation of back pain in the workplace. These efforts include reducing high physical demands and awkward postures, training workers in safer lifting and materials handling practices, and re-engineering workstations and assembly lines [12, 13]. These risk reduction measures have led to some decreasing trends in work-related back pain [4], but some commonly recommended prevention measures at the individual level (e.g., use of “back belts”) have not shown convincing benefits in randomized trials [14,

15]. There is evidence that workers who participate in regular exercise or are provided opportunities to exercise at work with or without education experience lower rates of back pain [14, 16-18].

### **Back Pain and Workability**

Even after careful medical evaluation and management, workers with similar patterns of back pain may experience highly variable outcomes in terms of their ability to stay at work or return to work. Efforts to create valid and objective measurement systems to assess functional capacity and workability are often uncorrelated with return-to-work outcomes [19,20], and researchers have noted the complexity of factors contributing to functional and occupational outcomes of back pain including pain beliefs, healthcare systems, workplace support and accommodation, and socio-demographics [21, 22]. Therefore, whether back pain leads to disabling levels of workplace dysfunction depends on individual, system-level, and workplace characteristics, not just on pain intensity.

### **Secondary Prevention in the Workplace**

In most high-income countries, regulations and policies exist that require employers to provide reasonable accommodation and support to workers with back pain to prevent long-term work disability, unemployment, or unnecessary departures from the workforce. A typical core requirement is that employers provide temporary or permanent job modifications to allow workers to continue working with adjustments for some time as long as essential job elements can be ultimately phased back in over time. In organizations with more proactive policies in return-to-work facilitation and job modification, workers experience fewer sick days and report more positive return-to-work outcomes [23, 24].

### **Psychosocial and Workplace Factors Associated with Work Disability**

Some pain-related beliefs and perceptions have been shown to predict more workplace difficulties after the onset of back pain. These include pain catastrophizing, fear of movement, low confidence to overcome pain-related challenges, poor expectations for recovery, psychological distress, and perceptions of greater functional loss [25]. Some workplace factors are also predictors of more workplace difficulties. These include physical job demands, ability to modify work, job stress, workplace social support or dysfunction, job satisfaction, expectation for resuming work, and fear of re-injury [26]. If many of these factors are present, then additional intervention in the form of RTW coordination, counseling, pain education, or gradual activity exposure may be helpful to alleviate these concerns [27,28].

### **Communicating with your Provider**

Many treatment options exist for workers with back pain, and patients should expect health care providers to address occupational factors in their diagnostic and treatment decision-making. Written job descriptions provided by employers may not provide the necessary level of detail for informed decisions about work restrictions, so patients should be prepared to share information with their clinicians about specific job tasks, especially those viewed as most problematic to resume. Proactive communication and guidance from a healthcare provider has been shown to help facilitate return-to-work [29], especially when providers outreach directly to employers [30].

## Occupational Rehabilitation

When back pain prevents a return to normal work for more than a few months, there is evidence that multidisciplinary rehabilitation programs are moderately effective to facilitate a return-to-work and improve physical and social function for both acute and chronic back pain [5, 6, 31, 32]. These programs typically integrate the benefits of pain management, psychological counseling, physiotherapy, exercise, patient education, gradual activity exposure, and peer support; however, availability or payment for these programs is limited in many countries and regions. In some cases, vocational retraining may be necessary to transfer skills to a less physical occupation, though job retention is often the preferred goal of the employee and employer.

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