



Minimising mental ill-health associated with physical injury

A wellbeing resource for first responders

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Contents

| | |
|---|-----------|
| Introduction | 1 |
| The impact of mental-ill health on the recovery of a workplace physical injury | 3 |
| Reducing the risk of workplace injuries | 5 |
| Reducing secondary mental-ill health once physically injured | 6 |
| Benefits of exercise for prevention and recovery of physical injury | 8 |
| Developing skill mastery and achievement | 9 |
| Social connection in workplace physical injury prevention and management | 10 |
| Conclusion | 11 |
| References | 12 |



Introduction

It is commonly thought that recovering from a physical injury is simple. You visit the doctor, have time off work, go to see the physio, get a massage, and bounce back. However, sometimes it is just not that simple.

Experiencing a physical injury that causes time off work can lead to various physical limitations, as well as emotional and psychological responses like concerns for the return of physical function or capacity to do the job. The trauma of experiencing a physical injury can affect an individual in a variety of ways including:

- Managing pain
- Changes in body physique
- Physical limitations
- Disturbances to occupational functioning
- Difficulties completing activities of daily living
- Independence
- Being placed on alternate duties
- Social isolation
- Worried about welfare and recovery
- Worried about the additional burden on family
- Worried about financial hardship

These experiences can be short-lived or sustained depending on the injury and can contribute to the psychological burden and mental health challenges for the first responder and their family. There may also be additional pressure from the workplace to return due to staffing challenges and a sense that you may be inconveniencing your peers. Physical injury (whether it occurs in the workplace or not) has a very close relationship to how an individual feels mentally.

Research shows that three months after an individual experiences a workplace traumatic physical injury, one-third of these individuals may develop depression and experience higher levels of anxiety and PTSD ^(1,2). After one month from physical injury, higher levels of depression, anxiety and PTSD were observed in individuals who reported higher levels of workplace psychological stress, lack of support from the workplace and home, stress to return to job or financial burden, physical pain, required amputation, or sustained a spinal cord injury^(1,2).



Understandably there are links between the severity of physical injury and permanent disability, to a greater risk of developing anxiety, depression and PTSD.

Not only does the physical injury have an impact on the individual's functional capacity and wellbeing, but the mental state that exists before the work-limiting injury occurs can also impact recovery time and risk of mental health deterioration of the worker post injury.

Pre-existing mental health conditions increased the risk of persisting physical injury symptoms and worse physical and psychological outcomes compared to those who had no reported pre-existing mental health concerns or conditions^(1,3).

First responders are exposed to high levels of psychological distress causing a higher risk of developing depression and anxiety after injury^(4,5).

So, from what we can see, pre-existing and post-injury mental ill-health can complicate and prolong recovery from physical injury.



The impact of mental ill-health on the recovery of a workplace physical injury

- Slower healing rate
- Reduced adherence to treatment plan
- Increased pain perception
- Limited motivation
- Social isolation
- Heightened risk of reinjury
- Increased mental health symptoms



When looking at the first responder cohort, not only do they experience three times higher rates of severe injury and traumatic joint and musculoskeletal injury; first responders also experience significantly higher rates of psychological distress. **One in three** experience high levels of psychological distress and **one in ten** experience PTSD. Additionally, 16% have or had a substance use disorder⁽⁴⁾.

With such a high risk of sustaining physical or psychological injury as a first responder, there need to be strategies to assist the mental health and well-being of those who sustain an injury that limits their capacity to work, as well as physical and mental preparedness and resilience to prevent workplace/injury (physical or psychological).

First responders who experience a workplace injury causing pain and restricted movement, prolonged absence from work, needing to adjust lifestyle/work duties, loss of income, increasing financial burden or needing further medical intervention, can develop stress, anxiety, and depression impacting their physical, mental wellbeing.

Finding ways to minimise workplace injury is usually the overall goal for all workplaces. However, if a first responder was to experience a workplace injury, it is vital to their recovery and wellbeing to reduce the impact of this physical injury and reduce the risk of deterioration of mental health.

The information above highlights the importance of addressing first responders' physical and mental health concerns before (working towards physical preparedness and mental resilience for the job⁽⁷⁾) and during a workplace injury (maintaining a level of physical activity allowing for the physical limitations from the injury and managing psychological distress or changes). Engaging in physical activities or structured exercise programs when managing a workplace injury has been shown to:

- Provide rest and rehabilitation
- Enable you to exercise or move increasing physical capacity
- Provide pain management
- Stabilise and enhance psychological wellbeing by engaging in safe and appropriate exercises which boosts mood, alleviates stress and reduces isolation
- Provide routine and structure



Reducing the risk of physical workplace injury



Regular engagement in structures weekly exercise

The type of exercise recommended for first responder workplace injury prevention includes occupational functional training, maintaining physical preparedness (strength, aerobic endurance and flexibility training) so the body can withstand the physical forces experienced on the job. To maintain a level of functional capacity, mental and physical wellbeing, it is recommended to complete 150 minutes of moderate-intensity physical activity per week. Incorporating a balance between training modalities as listed above.

Following guidelines and procedures within the workplace

These are designed to optimise the way first responders conduct their work, remember to report any concerns or safety issues to direct line of management.



Working collaboratively as a team and following your job role

Create a safe space First responders are exposed to higher levels of physical stressors and risk of injury.

However, utilising the correct manual handling techniques, working as a team, sharing the load and managing fatigue can reduce the risk of physical workplace injury.

Management provides a positive and supportive culture

Managers are advised to lead by example by being easily accessible for concerns to be raised, encouraging health and wellbeing/work-life balance, and prioritising the health and safety of their colleagues.



Reducing secondary mental ill-health once physically injured

Exercise has long been recognised as a critical tool in managing workplace physical injury but also shows benefits in reducing mental health deterioration due to said injury. This calls for action in providing health and wellbeing support during the time an injured worker is recovering

Regular engagement in structured rehabilitation and general activity

Moving more within capacity is one of the core components of improving both physical and psychological wellbeing when injured from work. Maintaining a level of physical activity within pain and mobility limits will assist in pain reduction, increasing physical capacity, reducing sedentary time and improve mood. Completing exercises that use other parts of the body that are uninjured will assist in maintaining strength and endurance so overall fitness doesn't drop too low as a result of the injury.

Aim to keep 150 minutes of moderate exercise (or as advised by your treatment team) per week. This can be broken down into segments of 5 – 10 minutes and built up to 30 minutes continuous per day. Remember that you can always incorporate activities and movements that do not involve the injured area even if you are bedbound, however always follow the advice of your medical professionals.

Injury management team

Those who experience a workplace injury are encouraged to seek professional assistance from an appropriate rehabilitation team to manage the recovery from the workplace injury. The rehab team will design specifically targeted programs to manage and improve the injured site to regain pre-injury function if possible or maximise adjusted functional capacity. Rehabilitation teams can include your worker's compensation team of physical therapists, doctors, psychologists and return-to-work coordinators, make use of these professionals to get the most out of your rehab journey.



Supportive environment (work, home and social)

Positive workplace culture

First responders who reported having supportive management returned to work faster, with less time off work (alternate and post-injury duties) and had improved physical injury outcomes with lower rates of injury-related mental health concerns.

Home support

It's valuable to have people you can trust, to discuss your recovery with. Maintain open and effective communication with your partners/ housemates, discussing your needs and capabilities and emotional impact of the limitation, and how you can support each other during this process.

Social connection

A lack of social connection is one of the largest predictors of mental ill health. Maintaining levels of social engagement with colleagues, peers and support people is essential for your wellbeing, e.g., do your exercises with others (workers compensation group classes, or with support people), still attend the social events and participate in a way you are capable of.

Completing your physical activities

With the right support and incorporating an element of enjoyment, this can assist in reducing symptoms of depression, anxiety and PTSD. Remember you can only do what you are able to do and sometimes recovery takes longer than expected. Be kind to yourself.

For any individual injured at work, you have the ability to gain knowledge, tap into support and equip yourself with many strategies to best assist in the management of your physical injury, but also reduce the potential negative impact of mental health.



Benefits of exercise for prevention and recovery of physical injury

The benefits of exercise on mental health are thought to be due to several factors.

8

Exercise releases chemicals like endorphins, dopamine and when in social contexts oxytocin, which are natural mood boosters and feel-good chemicals reducing the risk and severity of mental health symptoms.

Endorphins are also the body's natural painkillers. Endorphins can help to reduce feelings of physical pain and increase energy which allows for higher tolerance of pain and increased physical capacity, enhancing recovery time and physical capacity.

Exercise can also increase blood flow to the muscles and brain which improves musculoskeletal healing, blood circulation, pain sensation and increases the development of neural pathways assisting the body in developing skill mastery and cognitive function. All these factors assist in the recovery and wellbeing of the injured first responder.



Developing skill mastery and achievement

Physical activity and structured exercise can also provide a sense of achievement and mastery, this is including physical rehabilitation. Injured workers may feel like they have lost control over their lives and bodies resulting in a loss of purpose and identity.

Participating in regular structured exercise or physical activity or partaking in a supported rehabilitation program can help them regain some sense of control and accomplishment. When individuals use physical rehabilitation and exercise to increase strength, mobility and functional capacity, it enables them to progress through the injury which enhances recovery time decreasing the risk of psychological deterioration.

Managing with impairment or disability

Those who experience totally impaired or permanent disability due to a workplace injury will need ongoing support with their changed circumstances in addition to physical rehabilitation and psychological support.

Studies have shown that maintaining a level of physical activity within the limitations of the impairment or disability, in consultation with your treating physicians/specialists, benefits both physical recovery and maintenance of physical wellbeing and assists in managing of symptoms of depression anxiety and PTSD⁽⁸⁾.

Social connection in workplace physical injury prevention and management

Maintaining a level of social activity with your “tribe” is essential for support in preventing and managing the risk of mental illness associated with workplace injury.

This is key to enhancing your sense of belonging, accountability, recovery, and resilience.

To gain assistance and knowledge on what is beneficial for the prevention or management of an injury, it is highly recommended to book in with a professional like an exercise physiologist, physiotherapist or occupational therapist.

Joining an exercise group to maintain physical preparedness or a rehab group for injured workers and doing activities with other first responders on light duties can provide physical, social and emotional support.

This will assist in the prevention and recovery of physical injury and provide mental health support, which is particularly important for individuals who isolated or lost contact with their support networks.



Conclusion

First responders are at higher risk of physical injury, and it is known that a portion of injured workers may develop secondary mental health problems.

However, first responders can do their best to reduce the impact and even enhance their mental health during a period of recovery by tapping into the right support and physical programs.

Exercise can be vital in preventing and managing injury/work-related injury and secondary mental health deterioration. Exercise has been shown to reduce the risk of workplace injuries but also reduce the symptoms of anxiety and depression, improve mood, and increase self-esteem.

Incorporating regular exercise into workplace wellness programs as prevention and also adding to rehabilitation plans after a workplace injury can significantly benefit both physical and mental health. By prioritising exercise and other mental health supports, employers and individuals can improve their overall wellbeing and maintain good physical and mental health, even in the face of adversity.



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