



AUSTRALIAN
CHIROPRACTORS
ASSOCIATION



Work *Well* From Head to Toe

Adjust Your Thinking - Consult a Chiro

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Factsheet

Stress and the Musculoskeletal System

Stress is a natural response to challenging situations and can manifest physically.¹

Stress can affect various body systems including the neuro-musculoskeletal system² which comprises of nerves, bones, muscles, joints, tendons, and ligaments, that play a critical role in movement, stability, and posture.

When the body experiences stress, the brain and nerve system triggers the release of stress hormones like cortisol and adrenaline causing muscles to tense as a protective mechanism. When muscles are taut and tense for extended periods, this may trigger other reactions within the body including stress-related disorders displaying as pain, stiffness, and inflammation.³

Occupational Stress

The Centre for Work Health and Safety have identified a correlation between **workplace stress**, and **increased musculoskeletal pain**.⁴ Occupational stress, unlike biological, physical or chemical stressors, can lead to specific occupational diseases with Safe Work Australia reporting elevated stress levels are linked with increased susceptibility to developing work-related musculoskeletal disorders (WMSDs).⁵ Across the globe, numerous studies have identified stress as a WMSD risk factor⁶ for specific industries including front line services,⁷ agriculture and primary industries, trades and construction⁸ healthcare, information technology and office workers.⁹

How Stress Impacts the Musculoskeletal System

1. Muscle Tension and Pain

Chronic stress causes sustained neuromuscular tension, leading to pain and discomfort, particularly in the **neck**, **shoulders**, and **lower back**. Sustained tension can result in **muscle fatigue**, **trigger points**, and **referred pain** across multiple areas of the body.

For example, both **tension-type headaches** and **migraine** headaches are associated with chronic muscle tension in the shoulders, neck and head. Low back and upper extremity pain has also been linked to stress, especially work-related stress.¹⁰

2. Posture and Stress

Multiple studies have shown a connection between poor posture, muscle imbalances, and stress.¹¹ Prolonged stress often leads people to adopt poor postural habits, like slouching or hunching over, which puts additional strain on the neuromuscular system with chronic back pain and stiffness associated with stress-induced postural dysfunction, particularly from extended periods of computer use at work or at home.¹²

3. Stress-Induced Inflammation

Stress can trigger inflammatory responses in the musculoskeletal system.¹³ Elevated levels of **cortisol** and other stress hormones contribute to increased **joint pain**, particularly in people with conditions like **arthritis**. Chronic stress has been found to exacerbate inflammation, which can worsen conditions such as **tendinitis** and **bursitis**.¹⁴

Managing Stress-Related Musculoskeletal Disorders (MSDs)

1. Regular Physical Activity

Engaging in exercises like **walking, stretching, swimming**, and **yoga** helps release tension and improve posture, reducing the risk of stress-related musculoskeletal pain.

2. Relaxation Techniques

Stress management techniques such as **deep breathing, meditation**, and **progressive muscle relaxation** have been shown to lower muscle tension and inflammation.

3. Short, Regular Breaks

Studies have found that breaks can reduce or prevent stress and help to maintain performance and productivity throughout the day.¹⁵ Taking short, regular breaks can help reduce stress levels, allowing workers to return with a clearer and more focused mindset.¹⁶

4. Chiropractic Healthcare

Given their advanced training, chiropractors are well equipped to recognise and manage stress-related MSDs and can also address musculoskeletal or ergonomic contributions to pain which are exacerbated by posture associated with psychological stress (eg, stress-related postural dysfunction with prolonged computer use at work or at home).¹⁷

If you suffer from musculoskeletal problems due to stress, chiropractic can provide effective, drug-free healthcare for all Australians regardless of your age, profession or lifestyle.

Every week, more than 400,000 chiropractic consultations help everyday Australians maintain their spinal health.

ACA chiropractors are five-year university educated healthcare professionals who regularly care for a range of musculoskeletal disorders including stress-related MSDs. They play a vital role in managing the spinal health of Australians by providing holistic healthcare that can help address the cause of musculoskeletal pain and not just the symptoms.

How do ACA chiropractors help musculoskeletal disorders linked to stress?

Using specialised non-surgical techniques that avoid the use of drugs and surgery, ACA chiropractors can reduce pain, improve joint mobility, and reduce stiffness without the use of medication. They can also offer advice on exercise and lifestyle choices that can help reduce stress and the risk of spinal health problems to improve your overall health and wellbeing.

ACA chiropractors are Australia's leaders in chiropractic healthcare. Consult an ACA chiropractor to work well everywhere. To locate your local ACA chiro, visit consultachiro.org.au.

WorkSpace Week is the initiative of the Australian Chiropractors Association (ACA) aimed at minimising disorders that have a severe impact on the spinal health and wellbeing of Australians and educating them about the importance of maintaining positive spinal health. Look for the ACA Member logo at your local chiropractor's clinic or to locate an ACA chiropractor near you, visit

consultachiro.org.au

For a full list of references, visit chiro.org.au/campaign-references