

POST TRAUMATIC STRESS DISORDER & EXERCISE

PROFESSIONAL

WHAT IS POST TRAUMATIC STRESS DISORDER (PTSD)?

PTSD is characterised by symptoms of hyperarousal, re-experiencing, negative cognitions and moods, and avoidance that can occur following exposure to a potentially traumatic event [1]. People with PTSD commonly experience significant social and occupational impairments, in addition to poor physical health and a reduced life expectancy [2, 3].

PTSD is estimated to affect approximately 5-10% of the general population and women are more likely to experience PTSD than men [4]. Some occupations regularly exposed to trauma including first-responders (e.g. fire, ambulance and police) and military veterans are at higher risk of experiencing PTSD [5].

WHY IS EXERCISE OR PHYSICAL ACTIVITY IMPORTANT FOR THE MANAGEMENT OF PTSD

Regular physical activity in addition to usual care can reduce symptoms of PTSD beyond usual care alone [6, 7]. Physical activity has also shown to improve other important functional and psychological outcomes associated with PTSD including sleep behaviour, physical health comorbidities (e.g. diabetes and metabolic syndrome), quality of life and pain [8, 9]. Preventing declines in physical activity and fitness levels may also be an important prevention strategy as there is evidence to suggest that a decline in physical activity levels over time may be associated with increased symptoms of PTSD [10].

WHAT TYPE OF EXERCISE MIGHT BE BENEFICIAL FOR PEOPLE WITH PTSD?

There is no 'best type' of exercise for PTSD. Strength (e.g. resistance training [11]), aerobic (e.g. walking and cycling [12]) and mind body exercise (e.g. yoga [13]) have all shown to offer physical and mental health benefits. To date the majority of evidence for PTSD has been based on moderate-intensity exercise, however even short bouts of low intensity exercise may be beneficial and should be encouraged [14, 15]. The general physical activity guidelines are recommended for people with PTSD and are summarised in the table below.

Australia's Physical Activity Guidelines for Adults

» Accumulate 150-300 min of moderate intensity physical activity or 75-150 minutes of vigorous intensity physical activity, or an equivalent combination of both moderate and vigorous activities each week

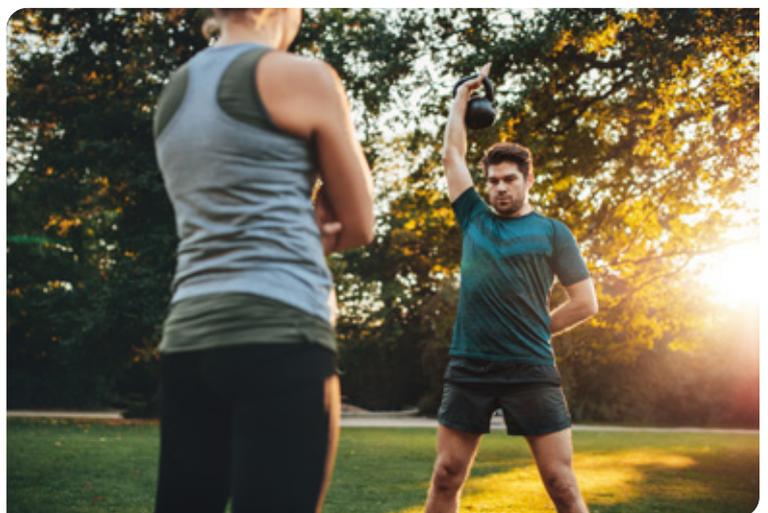
AND

» Do muscle strengthening activities on at least 2 days each week

The recommendations provide a guide, however increasing autonomous motivation is key to long-term adherence to an exercise program [16]. Therefore, the best type of exercise is the one that someone enjoys and will continue with over the long term.

STARTING AN EXERCISE PROGRAM

Encourage people to start slow and gradually increase the amount or intensity of exercise. It may be helpful to exercise with a friend/family member or to seek professional support from an Accredited Exercise Physiologist (AEP) or Physiotherapist. These health professionals have expertise in designing and delivering physical activity programs for people with complex and chronic conditions such as PTSD.





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RELATED INFORMATION AND REFERENCES

Exercise is Medicine Australia www.exerciseismedicine.org.au

Exercise Right www.exerciseright.com.au

Find a Physiotherapist www.choose.physio

Find an Accredited Exercise Physiologist www.essa.org.au

If you have any concerns about the safety of your patient in commencing an exercise program, please consider referral to a Sport and Exercise Physician.

Find a Sport and Exercise Physician www.acsep.org.au/

1. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. Washington, DC: American Psychiatric Pub, 2000(4th).
2. Phoenix Australia. Australian Guidelines for the Prevention and Treatment of Acute Stress Disorder, Posttraumatic Stress Disorder and Complex PTSD. 2020.
3. Rosenbaum, S., et al., The prevalence and risk of metabolic syndrome and its components among people with posttraumatic stress disorder: a systematic review and meta-analysis. *Metabolism*, 2015. 64(8): p. 926-33.
4. Kessler, R.C., et al., Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*, 2005. 62(6): p. 593-602.
5. Commonwealth of Australia The people behind 000: mental health of our first responders. 2019, The Senate Education and Employment References Committee. https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/Mentalhealth/Report.
6. Hall, K.S., et al., Warrior Wellness: A randomized controlled pilot trial of the effects of exercise on physical function and clinical health risk factors in older military veterans with PTSD. *The journals of gerontology. Series A, Biological sciences and medical sciences*, 2019.
7. Rosenbaum, S., C. Sherrington, and A. Tiedemann, Exercise augmentation compared to usual care for post-traumatic stress disorder: A randomised controlled trial. *Australian and New Zealand Journal of Psychiatry*, 2014. 1): p. 42-43.
8. Rosenbaum, S., et al., Physical activity in the treatment of Post-traumatic stress disorder: A systematic review and meta-analysis. *Psychiatry Research*, 2015. 230(2): p. 130-136.
9. Hegberg, N.J., J.P. Hayes, and S.M. Hayes, Exercise intervention in PTSD: A narrative review and rationale for implementation. *Frontiers in Psychiatry*, 2019. 10(MAR): p. 133.
10. Winning, A., et al., Post-traumatic Stress Disorder and 20-Year Physical Activity Trends Among Women. *American Journal of Preventive Medicine*, 2017. 52(6): p. 753-760.
11. Whitworth, J., et al., Feasibility of Resistance Exercise for Posttraumatic Stress and Anxiety Symptoms: A Randomized Controlled Pilot Study. *Journal of Traumatic Stress*, 2019. 32.
12. Fetzner, M.G. and G.J. Asmundson, Aerobic Exercise Reduces Symptoms of Posttraumatic Stress Disorder: A Randomized Controlled Trial. *Cognitive behaviour therapy*, 2015. 44(4): p. 301-313.
13. Cramer, H., et al., Yoga for posttraumatic stress disorder—a systematic review and meta-analysis. *BMC psychiatry*, 2018. 18(1): p. 72.
14. Vancampfort, D., et al., Physical fitness in people with posttraumatic stress disorder: a systematic review. *Disability and rehabilitation*, 2017. 39(24): p. 2461-2467.
15. Stubbs, B., et al., An examination of the anxiolytic effects of exercise for people with anxiety and stress-related disorders: A meta-analysis. *Psychiatry Research*, 2017. 249: p. 102-108.
16. Firth, J., et al., Motivating factors and barriers towards exercise in severe mental illness: a systematic review and meta-analysis. *Psychol Med*, 2016. 46(14): p. 2869-2881.