Evidence for the benefits of exercise in managing depression

Regular exercise can be an effective way to relieve some forms of depression and is often a neglected strategy for treatment of depression.

- Numerous studies have shown that people who exercise regularly experience fewer symptoms of depression and anxiety than those who do not exercise regularly.
- Several trials have shown that regular exercise of moderate intensity can be an effective treatment by itself for **mild to moderate depression**.
- Two trials have found that 16 weeks of regular exercise is equally effective as an SSRI antidepressant medication in the treatment of mild to moderate depression in older adults who have been inactive.
- Research also suggests that exercise can further assist depression in individuals with depression who have responded only partially to an antidepressant medication.
- Both aerobic exercise (e.g. brisk walking, cycling or jogging) and resistance or strength training (e.g. weight-lifting) have been found to be beneficial for depression.

How does exercise help depression?

Research suggests that regular exercise may increase levels of serotonin in the brain. Serotonin is a neurotransmitter involved in mood, sleep, libido, appetite and other functions, and has been linked to depression. Exercise may also increase endorphins, which are chemicals in the brain with ‘mood-lifting’ properties.

Regular exercise may also help depression by:

- Increasing energy levels
- Helping to get a good night’s sleep
- Providing distraction from worries and rumination
- Providing social support and reducing loneliness if exercise is done with other people
- Increasing a sense of control and self-esteem, by taking an active role in the individual’s own recovery.
Key points about the role of exercise in treating depression

- Regular exercise can be an effective treatment by itself for non-melancholic depressions (particularly for people who were previously ‘sedentary’ or inactive).
- For more severe melancholic depressions, exercise may be a helpful adjunctive strategy alongside other treatments (e.g. medication or psychological therapies).
- Exercise does not need to be extremely vigorous to be helpful for depression – simply briskly walking each day can be beneficial.
- For those with a melancholic depression and experiencing a distinct lack of energy in the morning, immediate exercise on getting out of bed can be beneficial.

Other benefits of exercise

In addition to being helpful for depression, there are numerous physical health benefits of regular exercise that are well-established by research. These benefits include prevention of numerous (including life-threatening) medical conditions such as heart disease, type 2 diabetes, osteoporosis, strokes and certain types of cancer. At a population level, physical inactivity is ranked just behind cigarette smoking as a cause of ill health.

Therefore, regular exercise as a treatment for depression has the added benefit of improving general health and preventing serious diseases.

Exercise recommendations

The National Physical Activity Guidelines for Australians recommend:

- a minimum of 30 minutes of moderate intensity exercise on most, preferably all, days of the week (an example of ‘moderate intensity’ exercise is brisk walking where you notice a slight increase in breathing and heart rate).
- exercising for at least 10 minutes at a time - the 30-minutes total does not need to be continuous – you can combine short sessions of different activities to a total of 30 minutes or more each day.
- being active in as many ways you can each day (e.g. use the stairs).

At least one study has shown that exercising at around the above level for 12 weeks can significantly reduce symptoms of depression amongst people who are inactive and experiencing mild to moderate depression. For people who are very inactive, health benefits can be gained by becoming even slightly more active. A little activity is better than none, and more is better than a little.

For extra health and fitness, it is recommended that adults (who are able) should also do vigorous activity that makes them ‘huff and puff’ (e.g. jogging, squash, rowing). For best results, vigorous exercise should be done for 30 minutes or more on 3-4 days per week (on top of moderate exercise).
Getting started

Feeling tired and being less motivated in general are two very common symptoms of depression. This means that exercise is often the last thing that people feel like doing when they are experiencing depression. Therefore, it can be useful to use some of the strategies below to help with motivation to gradually become more active:

Make a plan
- Start slowly and build up gradually. For example, if you have not been exercising at all, start with a 10-15 minute walk each morning, and gradually increase this to 30 minutes per day.
- Set short-term realistic goals for exercising each week (e.g. 3 x 20 minute walks per week). Plan to exercise at specific times of the day that fit in with your lifestyle and write your plan down.
- A range of health professionals can assist with increasing activity (see “Where to get help”).

Keep motivated
- Keep an activity diary each day.
- A pedometer can be helpful in keeping track of your activity levels.
- Reward yourself when you achieve your short-term exercise plan.
- Get other people involved – ask a friend, partner or relative to join you. Although it is common to not feel like socialising when experiencing depression, it can be helpful to include others in exercise, to gain support and help with motivation.
- Write down the specific benefits that you would like to gain from exercise, and refer back to these to help with motivation (e.g. reduce stress, improve mood, get in shape, and improve sleep).
- Write down the situations that you would expect to make it more difficult to exercise, and a plan to address these (e.g. if it rains, go for a walk in a shopping centre; if feeling tired, go for a 10 min walk)

Keep it up
- You don’t have to join a gym – try a variety of different types of activities to find those that you enjoy (e.g. swimming, walking the dog, jogging whilst listening to music, riding a bike, gardening, bushwalking, yoga, weight-lifting).
- Give yourself a break – if you don’t stick to your exercise plan, simply start again from where you left off.
- Remember that it can take time for the benefits of exercise to occur. (Most exercise studies showing a significant reduction in depression have examined exercise programs of at least 8 weeks).

SEEKING MEDICAL ADVICE:
If you are new to exercise, are pregnant, a smoker, are overweight, have heart disease or major health problems, it is recommended that you see your doctor for medical advice before commencing vigorous exercise.
Exercise and depression

Where to get help

**Exercise Physiologists**
Exercise physiologists are university qualified allied health professionals who specialise in the delivery of exercise, lifestyle and behavioural programs for the prevention and management of chronic conditions (including depression) and injuries. People who have ongoing health conditions (e.g. depression) are now able to receive Medicare rebates for up to five sessions with an exercise physiologist. For more information on exercise physiologists (and to find an exercise physiologist in your area), see [www.essa.org.au](http://www.essa.org.au), and for more information on Medicare rebates see [www.medicareaustralia.gov.au](http://www.medicareaustralia.gov.au).

**General Practitioners (GPs)**
A doctor who is a general practitioner may well be able to provide advice and information about depression and exercise, and can provide referrals to a qualified exercise physiologist, under Medicare.

**Psychologists/Clinical Psychologists**
Psychologists can assist with increasing motivation to exercise, activity scheduling, and problem solving to overcome barriers to exercise.

Organisations that provide facilities and services for exercise include:
- Council recreation centres
- Gymnasiums/sports clubs
- Community health centres

**Further information**
- “Just Walk It” information about walking groups [www.heartfoundation.org.au/Healthy_Living/Physical_Activity/Walking.htm](http://www.heartfoundation.org.au/Healthy_Living/Physical_Activity/Walking.htm)

**Australian Association of Exercise Sports Science**
- [www.essa.org.au](http://www.essa.org.au) for information on exercise physiologists

**Australian physical activity guidelines**