

Why Exercise? The Psychological Benefits of Physical Activity

by Lauren Muhlheim, Psy.D.

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I commonly see patients in my psychology practice for depression, anxiety, and other emotional complaints. When I'm taking someone's history, there's one question I always ask which may surprise you:

"Tell me how often you exercise."

Exercise has been shown to protect against coronary heart disease, high blood pressure, diabetes, osteoporosis, and some cancers. Regular exercisers also benefit from leaner bodies, improved flexibility and stamina. While most people are aware of these physical health benefits, many are not familiar with the range of mental health benefits that can be derived from regular exercise.

Relatively simple and inexpensive, exercise is a great way of managing stress and maintaining life balance. Its potential to invigorate, improve mood, reduce anxiety and stress, boost self-esteem, and improve focus and concentration is enormous. In fact, persons who exercise regularly may inoculate themselves against symptoms of anxiety and depression.

Exercise provides a change of scenery, gets you out of the house and routine, allows you to meet new people and feel less isolated. Its benefits last longer than quick-fixes such as comfort-eating, smoking, or drinking. I know from my own experience that exercise clears my head and generates new creative ideas.

Adding or increasing exercise is often one of the single most potent lifestyle changes you can make to improve your emotional life. It can catalyze other positive lifestyle changes as well.

Exercise Reduces Depression

People suffering from depression often withdraw and stop engaging in pleasurable activities. This in turn, reduces opportunities for enjoyment, making depression worse. Most depressed persons I see have stopped exercising altogether. Only occasionally do I see a patient who is depressed but still exercising regularly; and when that happens it is likely that their exercise has kept their depression from getting even worse. One established psychological treatment for depression is behavioral activation: encouraging the patient to engage in activities that create pleasurable experiences, lessening symptoms of depression. Exercise can be one of these positive experiences. It facilitates opportunities to interact with others and get positive feedback, even if it's a mere smile as one walks around the neighborhood.

In addition, it is believed that exercise causes physiological changes in the body that help reduce depression. The physiological mechanisms behind this are not fully understood, but exercise appears to increase the supply of certain neurotransmitters in the brain that keep one happy, as well as boosting endorphins (the feel-good chemicals behind the "runner's high").

There are indications that the antidepressant effects of exercise begin as early as the first session of exercise and persist beyond the end of the exercise program. While even a single exercise session has been found to improve a person's immediate mood state, antidepressant effects are greater when exercise training is longer than nine weeks and involves more sessions. The greatest benefits seem to occur after 17 weeks of exercise. Effects also are bigger when exercise is of longer duration, more intense, and more frequent. Some studies indicate that exercise can be almost as powerful an antidepressant as psychotherapy.

Exercise Reduces Anxiety and Stress

Anxiety sufferers often have physical symptoms such as muscle tension, aches and pains, shortness of breath, and racing heart. These symptoms are caused by a misfiring of the sympathetic nervous system, the part of the body designed to save one's life in the face of physical danger. Changes occur in the body as if one were getting ready to fight or run. However, in the case of anxiety there is no release: in the absence of true physical danger, the sufferer has nothing to fight and nowhere to run.

In this case, exercise can allow the sufferer to discharge frustration and muscle tension, often helping to reverse anxiety symptoms. Exercise can give a feeling of release from one's problems. Daily tension is displaced by close awareness of

the body's movements. In that a person's attention shifts from diffuse worries or repeated negative thoughts to the physical activity at hand, exercise shares some of the properties of meditation.

Exercise is correlated to a reduction in anxiety. Research has demonstrated that even short bursts of 5 minutes of aerobic exercise stimulate anti-anxiety effects. It produces greater effects when the exercise is aerobic, the length of the aerobic training program is at least 10 weeks, and the subjects have initially lower levels of fitness or higher levels of anxiety.

Once again the mechanisms are not entirely understood, but it is believed that exercise removes the build-up of stress hormones in the body. Published studies have concluded that individuals with improved levels of fitness are capable of managing stress more effectively than those who are less fit, and in fact report that they experience less stress in the first place. Even a single session of exercise may help to prevent stress, generating 90 to 120 minutes of relaxation response and reducing jittery and hyperactive behaviors. Exercise has also been associated with improved sleep.

Exercise Improves Self-Esteem

Exercise has been shown to have a positive influence on our perception of ourselves, providing a sense of accomplishment as we master skills, improve our body image and self-worth. Taking a proactive step such as exercising to manage depression or anxiety is a positive coping strategy that leads to active feelings of self-efficacy and self-esteem, as opposed to dwelling on these feelings, numbing them with alcohol, or hoping anxiety and depression will go away on their own.

Yoga as Anxiety Therapy

Recent research in support of yoga indicate that it can be highly effective in the treatment of anxiety. At the Boston University School of Medicine, professor of psychiatry and Trauma Center medical director Bessel van der Kolk recently published a study of yoga for the treatment of post-traumatic stress disorder (PTSD), a chronic anxiety disorder that can develop after someone is involved in a traumatic event, such as a sexual or physical assault, a war, a natural disaster or even a car accident. One physiological marker of PTSD is rapid heart rate. Yoga training can decrease heart rate; van der Kolk theorized that it would reduce PTSD's psychological symptoms as well. In the study, van der Kolk divided female patients with PTSD into two groups. One group completed eight hatha yoga classes. The other group had eight sessions of group psychotherapy.

The hatha yoga group showed significantly more improvement, including less frequent intrusive thoughts and less tense nerves, than the psychotherapy group.

As a result, even the US military has begun to investigate the therapeutic potential of yoga, treating returning active-duty soldiers with PTSD with yoga. Preliminary results show the yoga produces a reduction in depression and an improvement in sleep. It seems likely that further work will demonstrate the benefits for yoga on other populations with anxiety or depression.

Successfully Adding Exercise to Your Life

First, if you have not been engaging in regular exercise, it is a good idea to consult a medical doctor and have a physical checkup before embarking on a new exercise program.

Don't think of exercise as a burden. Think of it instead as emotional medicine. Remember that starting out is the hardest part, especially if you are depressed; many people find that once they start exercising it quickly becomes a welcome part of their routine.

Pick an activity you like or try something new. Bring your headphones: music can make a solitary activity like running or walking more enjoyable. There are even water-proof iPod cases you can take swimming. Vary the types of physical activity to keep up your interest level and benefit from the cross-training.

An exercise partner can be a great incentive: the social obligation reduces the risk you will back out and the company can distract you from the exertion. You may find that joining a group class may inspire you even more, the group feeding off its own energy and the instructor pushing you while ensuring you are doing the exercise correctly.

If this is intimidating at first or financially infeasible, there are numerous exercise videos offering excellent home workouts, ranging from yoga to step aerobics to belly dancing. Exercise does not have to be an elaborate or expensive endeavor. Simply going for a brisk walk around the neighborhood is a great moderate intensity exercise.

Set reasonable goals. Start small and build up gradually. You will not be ready to run a marathon in your first training session. At first you may only be able to swim 4 laps, jog for 15 minutes, or walk once around the block. However, by sticking with it, you will eventually build up stamina and muscle strength and be able to go for longer. Work up gradually.

Keeping Motivated

Treat exercise as a priority on your busy schedule, just as you would an important meeting. Although you may feel like you're too busy to fit in exercise, remember that its benefits will help you win back that time, increasing your ability to focus and concentrate during the rest of the day.

If you do not already enjoy exercise itself, treat yourself to an additional reward for your efforts. Plan something you enjoy, like a cup of tea, immediately after exercising; or treat yourself to a foot massage to reward yourself for your efforts after a whole week of exercise. Give yourself credit for every effort you make - believe it or not, this simple conditioning really does help to build a positive association with exercise. Keeping an activity diary where you record your exercise (activity and distance or duration) can also be very reinforcing. Simply getting a pedometer to track your increased endurance can be a great motivator.

Make a list of the reasons exercise will be beneficial to you: I will feel better about myself. I will be healthier. I will be less stressed. I will look better in my clothes. And so on. Keep this list in your wallet so you can pull it out and remind yourself why you've committed to exercise.

Address any barriers to exercise. Make a list of the excuses you make to not exercise. Write each of these down on an index card. On the back side, write down the counterargument to this excuse: for example, if your excuse is "I'm too tired," the response might read, "If I exercise now I will have more energy later." Pull the cards out whenever you're tempted to blow off your workout.

And expect that there will be setbacks. If you skip exercise one day, don't be too hard on yourself. Convincing yourself that you've totally failed might make you want to give up entirely. Remind yourself that you can get back on track the next day.

How Much Should One Exercise?

Even small amounts of activity - as little as 10 to 15 minutes at a time - can bring about some improvements in mood. However, more is better: the research suggests that it may take at least 30 minutes of exercise a day for at least three to five days a week to significantly improve depression symptoms.

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The American College of Sports Medicine (<http://www.acsm.org/>) and the American Heart Association provide these guidelines:

Moderately intense cardio 30 minutes a day, 5 days a week	<i>or</i>	Vigorously intense cardio 20 minutes a day, 3 days a week <i>and</i> 8 to 10 strength-training exercises twice a week
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Moderate-intensity physical activity means working hard enough to raise your heart rate and break a sweat, yet still being able to carry on a conversation. It should be noted that to lose weight or maintain weight loss, 60 to 90 minutes of physical activity may be necessary. The 30-minute recommendation is for the average healthy adult to maintain health and reduce the risk for chronic disease. Of course, while the suggestions above should be helpful to many people, bear in mind that anxiety and depression, like other medical matters, should not be treated lightly. If your symptoms persist or are severe, making it hard to function, consult a mental health professional. Psychotherapy and medication also offer a great deal of help to individuals suffering from anxiety and depression.

But if you're feeling only mildly stressed out, overwhelmed or blue, as a first step you may consider going for a brisk walk. You may be amazed, as many have, at the difference regular exercise can make in your life.

Versions of this article have appeared in the American Women's Club Spirit Magazine, the Emerald Housing, Newsletter, Shanghai Family Magazine, and Parkway Health newsletter (2009).

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