



# Alternatives For... Depression: Does Exercise Work?

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**D**epression is one of the most common problems treated in clinical practice. Even though drug therapy and psychotherapy are effective at alleviating symptoms, many cases of depression remain undiagnosed and inadequately treated. Sometimes we are faced with patients who refuse to take medications. Oftentimes, combining psychotherapy, medication, and other treatment modalities gives better results.

## How does exercise work?

Exercise may have biochemical effects via release of endorphins and other neurotransmitters. Often, exercise is done in groups or with a trainer and, thus, the social contact may be critical. If the exercise is done outside the person's home, the very act of getting out and doing something may be therapeutic.

Exercise also acts as a diversion for negative thinking and helps take the patient out of the helpless, withdrawn, state of mind.

## What's the evidence?

### 1. North, et al.

A meta-analysis of 80 studies showed exercise decreased depression scores significantly when compared to controls. The antidepressant effect increased with the duration of therapy and occurred with all types of regular exercise, independent of sex or age.<sup>1</sup>

### 2. Lawlor, et al.

Another meta-analysis looked at 72 potentially relevant studies, but only 14 of these fulfilled the inclusion criteria. Methodologic weaknesses included:

- randomization was adequately concealed in only three studies,
- intention to treat analysis was undertaken in only two, and
- assessment of outcome was blinded in only one.

When compared with no treatment, exercise significantly reduced symptoms of depression. The effect

size was significantly greater in those trials with shorter followup. However, the authors concluded that, “the effectiveness of exercise in reducing symptoms of depression cannot be determined because of a lack of good quality research on clinical populations with adequate followup.”<sup>2</sup>

*In one study, depressed elderly patients allocated to walking exercises showed significant decrease in depression at 6 weeks compared to controls.*

### *3. Babyak, et al.*

In this trial, 156 adult volunteers with major depressive disorder were randomly assigned to a course of aerobic exercise, sertraline therapy, or a combination of exercise and sertraline.

After four months, patients in all three groups exhibited significant improvement; the proportion of remitted participants was comparable across the three treatment conditions.

After 10 months, however, remitted subjects in the exercise group had significantly lower relapse rates than subjects in the medication group.<sup>3</sup>

Exercising on one's own during the followup period was associated with a reduced probability of depression diagnosis at the end of that period.<sup>3</sup>

### *Depression and exercise in the elderly*

Regular physical exercise in the elderly is also associated with decreased depressive scores. In one study, moderately depressed elderly subjects randomly allocated to walking exercises showed a significant decrease in depression at six weeks compared to controls.<sup>4</sup>

Another study examined 32 elderly depressed patients in a 20-week, randomized, controlled trial, with followup at 26 months. Exercisers engaged in 10 weeks of supervised weight-lifting exercise, followed by 10 weeks of unsupervised exercise; controls attended

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lectures for 10 weeks. Depression was significantly reduced at both 20 weeks and 26 months.<sup>5</sup>

### *Some final words*

There is enough evidence to suggest adding exercise to psychotherapy and drug treatment for depression. When patients are supervised and have to go out to exercise, the results are better. The big challenge is motivating depressed patients to adhere to an exercise prescription.

**D<sub>x</sub>**

#### References

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