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Treating Depression with Physical Activity

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Blumenthal et al
exercise vs. medication

156 men and women
Over 50 years old
Major depressive disorder by clinical interview, BDI, HAM-D

Randomized to – aerobic exercise (n=53),
  - Zoloft (n = 48) or
  - aerobic exercise + Zoloft (n=55)

For 16 weeks

Source: Blumenthal et al 1999 Archives of Internal Medicine
The Exercise Intervention

- 3 supervised exercise sessions / week
- 10 minute warm up
- 30 minutes walking or jogging at 70 to 85% of heart rate reserve.
- 5 minute cool down
- 16 weeks
Blumenthal’s Results

![Graph showing HAM-D and BDI scores before and after treatment for different groups: Medication, Exercise, Combination.](Blumenthal et al Archives of Internal Medicine 1999;159:2349-2356.)
Blumenthal’s Conclusion

- Exercise is as good as Zoloft in the treatment of Depression.
Correct Conclusion

- Among highly motivated but depressed individuals, those who can successfully participate in a structured exercise program will probably significantly decrease their depressive symptoms.
Meta-Analysis

- 14 Randomized Controlled Trials

- All but two studies showed an independent, statistically and clinically significant improvement in depressive symptoms.

- Effect Size  -1.1 (95% CI  -1.5 to -0.7)

- Comparing Exercise to No treatment Control

100’s of Observational Studies

- People who are not depressed now but are physically active now are less likely to be depressed in the future.
- Physical Activity reduces depression relapse
- College students who were physically active are less likely to become depressed later
One more point.

- We know that it is hard to start an exercise program and harder to stick with it.

- How many of our depressed patients successfully initiate and maintain a medication program? 20% to 60% stop taking med in 1st week.
How Can You Help Depressed Patients Become More Active

- Recommend exercise and say that there are some clinical trials showing exercise reduces depression symptoms.
- Write out an exercise prescription along with the anti-depressant script.
- Discuss types of exercise, Ways of fitting in exercise, How to get started.
Pedometers

- Count Daily Steps and record on a calendar
- Bring in Calendar to review after one week
- Obese patients may not get accurate step counts
- Caution with 10,000 steps a day target!
- Wear the pedometer all day every day

- Digi-walker SW200 ($20.00)
Watch out for Biases

Who do we think will not or should not exercise

- Poor patients
- Sick patients
- Minority Groups
- Older patients
- Depressed Patients
More Reasons for Depressed Patients to Exercise

- Medications for Depression cause weight gain, diabetes
- Number 1 cause of death in depressed patients is still heart disease.
- Diabetes is about 2 x as prevalent in depressed patients as it is among non-depressed patients.
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Slide 4: Blumenthal et al 1999 Archives of Internal Medicine
Slide 6: Blumenthal et al Archives of Internal Medicine 1999:159:2349-2356