

## Exercise and Mental Health

By: Igor Klibanov

### **Mood and Exercise**

- Using the Profile of Mood States (POMS) questionnaire, exercise increases vigor, and decreases tension, depression, anger and confusion.
  - Fatigue remains unchanged.
- With mood, frequency is key. A frequency of 5 days per week is superior to 3 days per week for mood elevation.
- Exercise does not elevate mood when mood is not depressed to begin with
- Four components of self-worth:
  - Athletic skills
  - Conditioning
  - Strength
  - Physical attractiveness
    - This one has the largest impact on self-worth
- Exercise improves one's own perception of physical attractiveness even when fitness does not improve.

### **Anxiety**

- State anxiety is your anxiety in a certain situation
- Trait anxiety is how anxious you are as a person. This is more a description of personality
- Cardiovascular exercise has greater anxiety-reducing effects, compared to strength training
- An intensity of 60% of VO<sub>2</sub>max has greater anxiety-reducing effects, compared to 75% VO<sub>2</sub>max.
- Minimum duration for anxiety relief: 10-15 minutes
  - As little as 20 minutes of exercise provides up to 6 hours of relief from depression
- With trait anxiety, it takes about 10 weeks to change it.
- Exercise even works in severe anxiety (in people hospitalized for anxiety)

### **Depression**

- For moderate depression, exercise at 3 times per week, for 30-45 minutes, for 8 weeks is effective.
- The depression-relieving effects of exercise are longer-lasting than those of psychotherapy
- Both cardiovascular exercise and strength training are equally effective.

- In major depression, exercise appears to be as efficacious as medications.
  - The effects of exercise, however, are longer-lasting than the effects of antidepressants
- Minimum frequency: 3 times per week
- Minimum duration: 20 minutes
- Intensity: 60-80% VO<sub>2</sub>max.

### **Alzheimer's**

- Risk factors:
  - Past head injury
  - Chronic stress
  - High blood sugar
- Complications of Alzheimer's:
  - Pneumonia
  - Incontinence
  - Falling
- Effective types of exercise:
  - Cardiovascular exercises
  - Balance training
  - Dancing/Tai chi

### **Mechanisms**

- How does exercise work to improve mental health?
  - Hypothesis #1: self-efficacy
  - Hypothesis #2: distraction/time-out
  - Hypothesis #3: mastery
  - Hypothesis #4: tryptophan/serotonin
  - Hypothesis #5: dopamine
  - Hypothesis #6: better responsiveness to stress
  - Hypothesis #7: increased alpha wave activity in the brain
  - Hypothesis #8: decreased muscle tension

### **Additional Resources**

<http://www.fitnesssolutionsplus.ca/blog>

### **About the Presenter**

Igor Klibanov has been selected as one of the top 5 personal trainers in Toronto by the Metro News newspaper, and now, he is the CEO of his own personal training company, Fitness Solutions Plus. Together, with his team of fitness professionals, he works with NDs to help their patients get better clinical outcomes.

Igor is the author of 8 different books on exercise and nutrition, including *The Mental Health Prescription*, *High Blood Pressure Reversal Secrets* and *Type 2 Diabetes Reversal Secrets*.

Igor is a sought-after wellness speaker, having worked with RBC, Investors Group, Sunlife, IBM, and many others.

If you would like to learn more about Igor, visit <http://www.FitnessSolutionsPlus.ca/can-fit-pro>