Effects of Exercise on Anxiety, Stress, Depression, and ADD

Terry Eckmann, Ph.D.
Professor, Minot State University
terry.eckmann@minotstateu.edu

There is a growing body of research supporting the mind-body connection, proving that exercise is truly the best medicine to reduce anxiety, help balance challenges of ADD, decrease negative effects of depression and help to effectively manage stress. Review the anatomy and physiology of the brain as it relates to anxiety, ADD, depression and stress. Learn how exercise balances neurotransmitters and hormones to keep the body and brain functioning in harmony.

Review of the Anatomy & Physiology of the Brain
1. Lobes of the Brain
   a. Frontal
   b. Temporal
   c. Parietal
   d. Occipital
   e. Limbic System
2. The Cerebellum
3. Neurons, Neurotransmitters, Hormones

Exercise for Brain Health!
1. Thirty Minutes of Moderate to Vigorous Aerobic Exercise

Research Update on Effects of Exercise on Stress
1. What is Stress?
2. Responses to Stress
3. The Brain on Stress
4. Research: Effects of Exercise on Stress

Research Update on Effects of Exercise on Anxiety
1. Defining Anxiety
2. Statistics on Anxiety
3. The Anxious Brain
4. Research: Exercise in Treating/Managing Anxiety
5. Why Exercise for Anxiety?
6. The Exercise Prescription
Research Update on Effects of Exercise on Depression
  1. Defining Depression
  2. Symptoms and Causes
  3. Prevalence of Depression
  4. Depression and the Brain
  5. Research: Exercise in Treating Depression
  6. The Exercise Prescription
  7. Exercise vs. traditional treatments

Research Update on Effects of Exercise on ADHD/ADD
  1. Exploring ADHD/ADD
  2. Brain with ADHD/ADD
  3. Research: Effects of Exercise on ADHD/ADD

Research Update on Effects of Exercise on Self-Concept and Self-Esteem
  1. Differentiating Self-Concept and Self-Esteem
  2. Exercise and Self-Concept/Self-Esteem

Seven Key Ways Exercise Improves the Mind-Body Connection
  1. Changes Brain Circuitry
  2. Balances Hormones
  3. Balances Neurotransmitters
  4. Changes Levels of Neurotrophic Factors
  5. Provides a Positive Focus
  6. Improves Resilience
  7. Develops Self-Control


