



Exercise and the brain—the crucial connection!

SPARK

THE REVOLUTIONARY
NEW SCIENCE OF EXERCISE
AND THE BRAIN



Supercharge Your Mental Circuits to
Beat Stress, Sharpen Your Thinking, Lift Your Mood,
Boost Your Memory, and Much More

JOHN J. RATEY, MD
COAUTHOR OF *DRIVEN TO DISTRACTION*
with **ERIC HAGERMAN**

SPARK: The Revolutionary New Science of Exercise and the Brain

By Dr. John Ratey
with Eric Hagerman

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SPARK is a groundbreaking exploration of the connection between exercise and the brain's performance that shows how even moderate exercise will supercharge mental circuits to sharpen thinking, enhance memory, beat stress, and much more. Dr. John J. Ratey is a Harvard professor and author of the bestseller *Driven to Distraction*.

COGNITION: Dr. Ratey shows how exercise improves our ability to learn and in fact makes us smarter. After a new fitness program was instituted in an Illinois school district of 19,000, test scores soared—first in the world in science and sixth in math.

HORMONAL FLUCTUATIONS: Exercise is particularly important for women during each stage of the life cycle because it tones down the negative consequences of hormonal changes that some experience and enhances the positive effects for others.

STRESS: Too much stress can sever connections between neurons. Dr. Ratey explains how exercise counteracts this breakdown by increasing blood flow to the brain and creating a surge in protective neurochemicals.

ANXIETY: While anti-anxiety drugs stifle anxiety, they don't help you learn a different response to the underlying fear. Exercise has been proven not only to reduce anxiety but to rewire certain pathways and prevent anxiety.

MOOD: About 18 percent of adult Americans experience depression at some point in their lives. Using cutting-edge studies, Dr. Ratey shows that exercise is better than drugs like Zoloft in reducing depression. Exercise elevates endorphins, boosts dopamine, and regulates all of the neurotransmitters targeted by antidepressants.

AGING: Exercise can also help stave off memory loss and Alzheimer's and keep the mind sharp. New research illustrates that women who exercise decrease their chances of dementia by 50%.

ADHD: Exercise increases dopamine, which in turn improves focus and attention. Dr. Ratey explains why he prescribes exercise for treating ADHD in kids and adults.

ADDICTION: Exercise is the perfect antidote to addiction, again because it increases dopamine and so improves the brain's ability to satiate.