FitFacts™

American Council on Exercise®

EXERCISE TO BOOST YOUR JOB PERFORMANCE

How would you like to feel more energized at work — to sharpen your brain and enhance your ability to concentrate, learn, and think creatively? Not only would you feel better physically, but you'd be more motivated — and at the top of your game, career-wise. Sound good?

Being Your Best, Doing Your Best

Exciting new research shows the remarkable effect of moderate-to-vigorous exercise on brain structure and function. A brisk walk during a morning break or a cardio class at lunchtime balances neurotransmitters and other chemicals in the brain — substances responsible for influencing brain activity related to mood, attention, learning, motivation, and arousal. That's why you're likely to feel calmer, yet more alert — and better able to focus — after exercise.

Exercise also helps the brain — and body — cope better with stress. That's good news for people who work in high-pressure environments.

Turbo-Charge Your Brain

According to author and Harvard psychiatry professor Dr. John Ratey, another influence on the way the brain works is brain-derived neurotrophic factor, or BDNF. This substance boosts brain cell (neuron) growth and strengthens cell-to-cell connections, essentially changing brain structure. It even protects neurons against age-related changes that can lead to cell death and dementia.

Stronger, healthier, better-connected, bigger brain cells equals increased learning capacity. And here's the big discovery — exercise floods the brain with BDNF, providing the infrastructure it needs to absorb information, process, remember, and use it.

Strategic Exercise

Ratey points out that even though exercise boosts BDNF, more is needed to optimize brain function. Ideally, exercise should be paired with or precede complex motor or cognitive tasks — to build neurons and give them something to do. So activities like figure skating, rock-climbing, or soccer fit the bill — as do running, brisk walking, or swimming followed by reviewing data reports, participating in a Web conference, or repairing a vehicle. The key is to keep finding ways to challenge your body and your brain.

Trying to learn difficult material while on the stair climber is futile — because blood flow shifts away from the part of the brain responsible for critical thinking. But when you're done working out, brain blood flow — enriched with higher

levels of BDNF — returns to normal. According to Ratey, this is the optimal time for focusing on tasks that require serious brain power.

An On-the-Job Performance Edge

Many modern workplaces are increasingly sedentary, increasing worker risk of inactivity-related injuries and illness. While excessive sitting has been shown to impart risks that are independent of exercise level, an active lifestyle clearly cuts down on sitting time and results in both physical and mental benefits:

One study showed that a supervised, pre-planting season exercise program among reforestation workers reduced injury rates from 22% to less than 5% — and increased productivity.

A daily supervised 10-minute stretching program among assembly-line workers showed significant improvement in joint flexibility, fatigue, anger, depression, and overall mood.

A nine--month study of 80 executives showed that exercisers experienced a 22% increase in fitness and a 70% improvement in ability to make complex decisions compared to sedentary peers.

A study of railroad workers showed that 75% of employees reported improvement in on-the-job concentration and overall productivity.

In addition to increasing the ability to focus, think clearly, and learn more effectively, regular exercise improves mood, relieves anxiety and depression, enhances energy, and promotes self-efficacy. When you feel great and believe in yourself, your mindset at work is bound to be optimistic, and that bodes well for job performance — and career growth. When you stay physically active, you're taking care of your body and your brain — reducing health risks and increasing your capacity for learning, motivation, and sharp thinking.

Stay Active, Enhance Your Career

The nature of work in today's marketplace often involves juggling multiple roles, heavy workloads, and the ability to think on one's feet. Athletes train for peak performance — and research points to plenty of good reasons for workers in other fields to follow suit.

Additional Resources

Exercise Fuels the Brain's Stress Buffers – American Psychological Association www.apa.org/helpcenter/exercise-stress.aspx

Exercise on the Brain – New York Times www.nytimes.com/2007/11/08/opinion/08aamodt.html

Physical Training for Improved Occupational Performance – ACSM www.acsm.org/AM/Template.cfm?Section=current_comments1&Template=/CM/ContentDisplay.cfm&ContentID=8651

Train Your Brain with Exercise – WebMD www.webmd.com/fitness-exercise/guide/train-your-brain-with-exercise

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If you are interested in information on other health and fitness topics, contact: American Council on Exercise, 4851 Paramount Drive, San Diego, CA 92123, 800-825-3636; or, go online at www.acefitness.org/GetFit and access the complete list of ACE Fit Facts.™