Why should I exercise?
A large body of research shows that physical activity has immediate and long-term benefits for mental and physical health. One benefit is that exercise improves concentration by enhancing neurotransmitter function and increasing blood and oxygen flow to the brain, all of which contribute to improved cognition (Otto & Smits, 2011).
- We’re made to move. Research on mammalian evolution suggests the brains that grew the largest, had the greatest capacity for endurance exercise. This indicates that exercise actually led to large human brains and high functioning mental capacities (Raichlen & Gordon, 2011).
- A large group of studies have shown how exercise increases the brain’s concentration of the protein called the brain-derived neurotrophic factor or BDNF that’s directly associated with nerve growth (Zoladz & Pilc, 2010).
- The American College of Sports Medicine published findings showing that college students who exercised vigorously on a regular basis had higher grades than those who were sedentary. Of note, the study controlled for factors that might affect grade point average including area of study, amount of study time and participation in sports (American College of Sports Medicine, 2011).
- The same study showed that students who participated in vigorous physical activity had on average 0.4 point higher GPA (American College of Sports Medicine, 2011).
- The American Journal of School Health published one of the largest studies looking at the impact of exercise on academics, studied thousands of teenaged students in Cambridge Public Schools. These findings showed that those who tested well for physical fitness, also achieved higher scores on the statewide standardized tests (MCAS) (Chomitz, et al, 2009).

Exercise helps you stay healthy & feel better
- Moderate amounts of regular physical activity boost immune function by allowing the body to clear out old cells and replace them with new stronger cells, thus increasing the body’s production of T-cells that ward off infection. (Pederson, 1991).
- Young adults who engaged in moderate aerobic exercise supplemented with moderate weight-training significantly reduced signs of depression and stress (Atlantis, et al., 2004).
- Further research indicates that exercise improves mental health because it improves neurotransmitter function in the brain (Otto & Smits, 2011).
- Exercise increases your body’s production of “feel good” chemicals (e.g. serotonin, dopamine, endorphins)—improving mood and increasing motivation (Mayo Clinic).

What counts as exercise?
The Centers for Disease Control (CDC) recommends that adults (18+ years of age) get a combination of aerobic and muscular strengthening exercise on a weekly basis (CDC, 2011). The recommendations include 150 minutes a week of *moderate* aerobic activity or 75 minutes of *vigorous* aerobic activity.

Aerobic Activity:
If you’re exercising aerobically at **moderate intensity**, then you can probably speak but not sing.
- Examples: walking fast, bicycling slower than 10 mph & tennis (doubles).
If you’re exercising aerobically at **vigorous intensity**, then it’s hard to say too much without pausing to breathe.
- Examples: jogging or running, tennis (singles) & bicycling (10 mph or faster).

Muscle-strengthening activities:
Another important element of exercise includes **muscle-strengthening activities** at least two times a week. These activities should work each major muscle group (arms, shoulders, abdomen, chest, back, hips and legs) (CDC, 2011).
- Examples: lifting weights, working with resistance bands, yoga, doing exercise that uses your body for resistance (e.g. push-ups, sit-ups) & heavy gardening.

How can I fit exercise into my schedule?
The US Department of Health & Human Services recommends doing 150 minutes a week of moderate aerobic activity or 75 minutes of vigorous aerobic activity. This may sound like a lot, but breaking it down into a weekly schedule feels more manageable.
- For a moderate 150 minutes: that’s 30 minutes per day, 5 days per week OR 22 minutes per day, 7 days per week.
- For a vigorous 75 minutes: that’s 25 minutes per day, 3 days per week OR 15 minutes per day, 5 days per week.
Look at your schedule and try to identify 3-5 available time slots. Set those times aside each week just for exercise. Write it on your calendar to stay committed. During a busy week, you may have to reduce your physical activity, but try not to cut it all out because even a little provides significant health benefit.

**How can I stick with an exercise routine?**

The Centers for Disease Control looked at barriers to exercise behavior, and they recommend the following strategies to overcome barriers to exercise (CDC, 2011). Try setting up a workout schedule that you can stick to and make sure it’s sustainable and fits with your other responsibilities.

- **Be social**
  - Try exercising with friends, you will both be more committed if you’re in it together.
  - Participating in a new activity, you may make new friends too.

- **Relax**
  - Think of your work-out as a mini-vacation. Exercise gives your mind a needed break from your worries.
  - Vow not to check your phone or e-mail during your exercise routine.
  - Allow yourself to fully engage in the workout, it will be difficult to think about anything else.

- **Make life easier**
  - Exercise training isn’t just about achieving the “perfect looking” body at the gym or winning competitions. It’s about being more strong and comfortable in the rest of your life (e.g. carrying a suitcase). This is the theory behind **functional fitness**—a promising new fitness method that involves squats, lunges, walking and balance (Shaw, 2012).

- **Be creative**
  - Find ways to fit exercise into your normal routine by biking, walking or running instead of using transit and skip the elevator or escalator and opt for the stairs.
  - Taking a 5 minute break from long assignments to stand, walk and stretch.

- **Enjoy it!**
  - Exercise is all about you. Find what works for your body, schedule, personality and interests. MIT offers a many different physical activity from ballroom dancing to squash to kayaking—you have a lot to choose from!
  - Try different things out, and if the first activity doesn’t work for you, then simply try something else out. If you like the outdoors – find activities there, if you love to swim MIT has two pools.
  - If you’re going to spend some time each week exercising, make sure that you find something you love.

To learn more, check out the following resources:


