

# Physical Activity and Mental Health: Information for Adults



Image credit: Anderson Ross | Adobe Stock

**Summary:** As human beings, our bodies need to move. Physical activity, ideally outside, is needed for us to have a healthy body and brain. The problem with modern society however, is that it tends to promote sitting. We sit in cars to get places. We sit in front of screens for school, work and relaxation. It turns out that our sedentary lifestyle is contributing to the modern epidemic mental and physical health problems. The good news is that there are many things we can do in order to get moving again. Start small and go slowly. It can be as simple as standing instead of sitting in your desk. Parking farther away from the store in the parking lot. Step-by-step, you'll be moving in no time.

## Introduction

Imagine you went to see your doctor, and your doctor prescribed you something that would help you feel happier, calmer, have more energy, and also prevent heart disease and dementia? The prescription is movement.

## Humans Need to Move

Throughout most of human history, humans spent most of their time moving around outside. It is estimated that our hunter-gatherer ancestors moved perhaps 10-15 kilometers a day. As a result, our brains and bodies require physical activity (and nature) in order to grow, develop and function at their best. Unfortunately, in modern society, we tend to live a sedentary lifestyle, where we spend several hours a day inactive (in front of a screen, sitting in a chair or couch, sitting in a vehicle). As a result, the lack of nature and physical activity may be contributing to many of the physical and mental health problems that we are seeing.

## What is Physical Activity?

Physical activity means anytime we move our bodies. It includes:

- Physical activity that we do as part of our day-to-day, such as walking to work; walking up and down the stairs at work; biking to the store for groceries.
- Exercise: Activities we do on purpose for fitness or training, such as going to the gym, or going for a run.
- Sport: Activities we do on our own such as running on your own, cycling, or team sports that we do with others

## How Does it Help?

---

Low-intensity movement on a day-to-day basis encourages our body to have neurotrophic or growth factors, which builds brain cells in key brain areas such as the hippocampus, thus helping to improve moods.

High-intensity exercise releases the body's feel-good chemicals known as endorphins, which lead to the "runner's high" that runners talk about.

There are many physical and mental benefits to being active, such as:

- Improved physical health
  - Healthier cardiovascular system (thus less chance of heart disease, high blood pressure and diabetes)
  - Healthier overall fitness (less chance of being overweight)
  - Stronger bones (thus less chance of osteoporosis)
- Improved brain health
  - Better sleep
  - Improved focus and concentration.
- Improved emotional health
  - Better mood (which protects against depression and anxiety)
  - Increased self-acceptance (and self-esteem) about your body
- Improved social health
  - Being active outside your home will give you more chances to meet other people. Simply walking around the neighborhood and saying hello to others helps meet our need to be social.

## Which is Better, Indoor or Outdoor Activities?

---

Studies have compared the positive effects of indoor physical activity (e.g. running on a treadmill) vs. outdoor ("green") activities (e.g. running outside), and show that outdoor or "green" exercise is the best. When people get outside, they naturally move more than when they are inside.

But what if the weather is bad outside? Remember there is no bad weather, just bad clothing. If you are worried it's too cold, make sure you get warmer clothing. If you are worried it's too wet, get a nice waterproof rain jacket and rain pants. Studies show that the people benefit from being active outside, regardless of whether it's a sunny day, or rainy / cloudy day.

## How Much Exercise?

---

Try to get at least 30-minutes of physical activity a day.

It doesn't have to be all at once. It can be 30-minutes once a day, but it could be divided up, such as three 10-minute walks.

## What Counts as Exercise?

---

Moderate exercise is recommended, such as going for a walk, which will increase your heart rate and breathing, but you can still talk comfortably.

Plus:

- Adults should also do muscle and bone-strengthening exercises at least twice/week.
- Older adults (65+) with poor mobility should regularly do activities that help to improve balance and prevent falls (e.g., yoga).

## It's Hard to Exercise Because I Suffer from Depression

---

Do you have troubles with depression, anxiety or stress? If so, then this is even more reason to start moving.

Studies on depression show that doing at least 30-minutes a day for at least 3-5 days a week can significantly help with mood and anxiety, with effects seen in as early as 2 weeks after becoming more active.

Studies have shown that for people with mild to moderate depression, exercise is as effective as medications, with less side effects.

## I'm not that active... How do I get started?

---

It can be hard getting more active, when we are used to a sedentary lifestyle. It can also be intimidating to see those health zealots that appear to exercise for hours every week, which can make the rest of us feel like giving up. .

### Getting started

- Start low -- even a few minutes a day.
- Accept that in the beginning, physical activity may not be that enjoyable.
- If the idea of a 30-minute walk every day is too much, then consider getting smaller bursts such as 10-minute bursts of activity. For example, instead of a 30-min. walk daily, one could have three ten minute walks.

### Beginning of the Day

- Consider a morning walk around the block before going to work, as many people feel more energetic at the beginning of the day.

### Commuting to Work

- Active transportation. Consider biking or walking to work. Even taking public transport is more active than driving. Or walking one bus or subway stop further before you get onto the bus or subway.
- If you drive to work, park farther away so you can get more of a walk.

### At Work / School

- Take the stairs instead of the elevator.
- Walk to talk to a colleague rather than just emailing.
- Try walking meetings, where you and your colleague(s) talk while walking, as opposed to talking while sitting.
- Have a walk during lunch on your own or invite a co-worker.
- If you work at a desk, then stand rather than sit at the desk.

### After Work / School

- Bike or walk for short trips in the neighborhood, rather than taking the car.
- If you do drive somewhere, park farther away in the parking lot. Or a few blocks away, to make you walk more.
- Make it social. Invite a friend for a walk, a bike ride or a run. Let them know you are trying to be more active.

### Active chores

- Instead of using a machine, try to do some chores yourself, e.g. washing the dishes, washing the car, walking the dog, helping with gardening, bringing out the garbage or recycling, etc.

### Recreational activities

- Choose from many possible activities. Many types of activity have been shown helpful for your brain including:
  - Walking, swimming, running, weightlifting, resistance training (pulling or pushing weights with arms or legs, e.g. using gym equipment), stationary bicycling, dancing, tai chi, yoga.
- Join an outdoors club.
- Join a gym.
- When you are doing a physical activity, make it about having fun, and being outside or with others, rather

than about winning and being better than others.

Limit “easy” sources of reward chemicals for the brain

- Limit (recreational) screen time. Too many of us watch too much TV. The problem with screens is that they are addictive, as they provide our hunter-gatherer brains with easy dopamine and adrenaline (reward chemicals), with little to no effort. When the brain becomes accustomed to easy dopamine and adrenaline, it becomes harder for anyone to want to do active activities. After all, why work for your adrenaline and dopamine if you can get it for little effort? Watch less TV, and you will naturally find more active ways to fill your time.
- Are you watching TV? Try standing instead of sitting.

Lifestyle strategies to help

- Are you finding it hard to get active?
  - Try to get enough sleep.
  - Eat a healthy diet.

## My Personal Action Plan

What are some types of physical activity that you are more likely to do?

- 1.
- 2.
- 3.

When are good times for you to be active?

- 1.
- 2.
- 3.

Any little changes you could make in your current routine to be a bit more active?

- Examples: Sweeping instead of using the vacuum; walking or cycling to the local corner store instead of driving; taking the stairs instead of the elevator; parking farther away and then walking to your office or the store; asking a friend or family member to do activities with you; using a treadmill or exercise bike in front of the TV; watching a workout video, etc.

- 1.
- 2.
- 3.

## When To See Your Doctor

Are you still having struggles getting active? See your doctor to see if there are any medical issues getting in the way of your physical activity.

## For More Information

### Videos

Suzuki, W. (2018). TED Talk: The brain-changing benefits of exercise [Video]. Retrieved from <https://www.youtube.com/watch?v=BHY0FxoKZE>

## Readings

ParticipACTION has information for individuals and parents on how to be more physically active.

<https://www.participaction.com/>

“Psychology Works” Fact Sheet: Physical Activity, Mental Health and Motivation

[https://cpa.ca/docs/File/Publications/FactSheets/PsychologyWorksFactSheet\\_PhysicalActivity\\_MentalHealth\\_Motivation.pdf](https://cpa.ca/docs/File/Publications/FactSheets/PsychologyWorksFactSheet_PhysicalActivity_MentalHealth_Motivation.pdf)

Canadian 24-hr Movement Guidelines from the Canadian Society for Exercise Physiology

<https://csepguidelines.ca/>

## References

---

Canadian Fitness and Lifestyle Research Institute

<https://www.cflri.ca/>

Physical Activity Guidelines for Americans, 2nd ed, Office of Disease Prevention and Health Promotion, Retrieved Dec 22, 2018 from <https://health.gov/paguidelines/second-edition/report/>

Mammen G, et al.: Physical Activity and the Prevention of Depression, American Journal of Preventive Medicine, Nov 13, 2013, 45(5): 649-657.

Lawlor DA, Hopker SW. The effectiveness of exercise as an intervention in the management of depression: systematic review and meta-regression analysis of randomised controlled trials. *BMJ* 2001; 322: 1-8.

Warburton DE, Nicol CW, Bredin SS. Health benefits of physical activity: the evidence. *CMAJ* 2006; 174: 801-809.

Ellis P, Royal Australian and New Zealand College of Psychiatrists Clinical Practice Guidelines Team for Depression. Australian and New Zealand clinical practice guidelines for the treatment of depression. *Australian and New Zealand Journal of Psychiatry* 2004; 38: 389-407.

Lynette L et al.: The Benefits of Exercise for the Clinically Depressed. *Prim Care Companion J Clin Psychiatry*. 2004; 6(3): 104-111.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC474733/>

## About this Article

---

Written by the health professionals at the University of Ottawa.