


Exercise and Cardiovascular risk

- 1100 male firefighters
- Age 21-66 years (avg. 39)
- Push-up test  followed them for 10 years
- >40 push-ups (less heart attacks)
- <10 push-ups (more heart attacks)



Original Investigation | Nutrition, Obesity, and Exercise

February 15, 2019

Association Between Push-up Exercise Capacity and Future Cardiovascular Events Among Active Adult Men

Justin Yang, MD, MPH^{1,2}; Costas A. Christophi, PhD^{1,3}; Andrea Farioli, MD, PhD⁴; [et al](#)



Benefits of Exercise

- Protects from heart attack and stroke
- Decreases your blood pressure and heart rate
- Helps prevent or control diabetes
- Reduces anxiety, stress, and depression
- Decrease risk of some cancers
- Improves cognition
- Strengthens your bones



Normal bone
density

Normal muscle
mass



Low bone
density

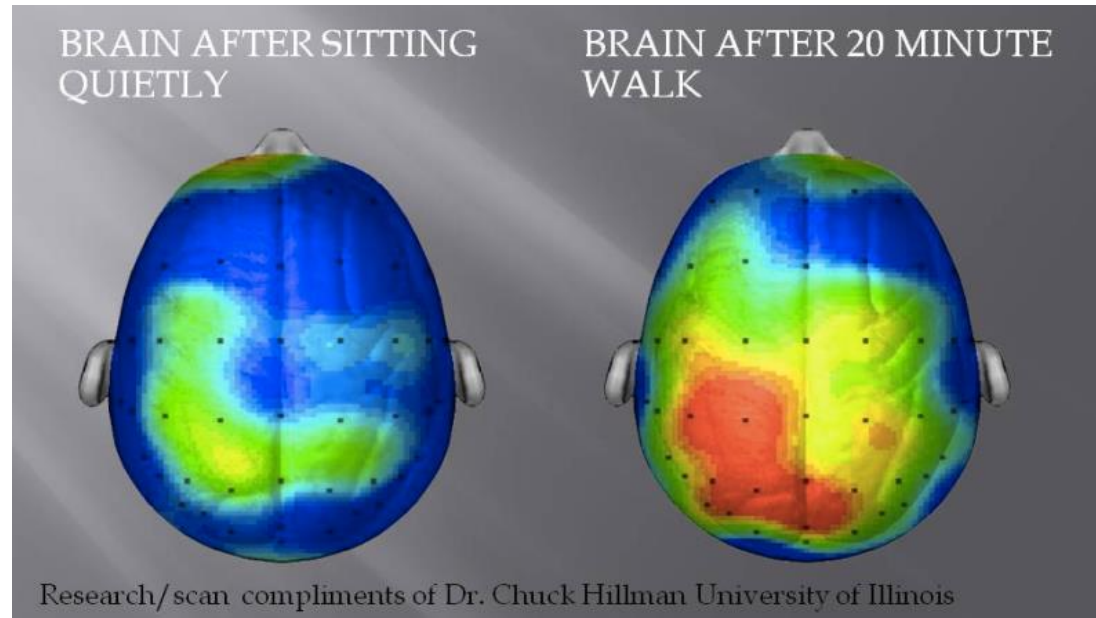
Low muscle
mass

From lack
of activity



Exercise improves memory

When you're active
your brain is active.



Start exercise

Brain-Derived Neurotrophic Factor (BDNF)
protective & reparative (reset switch)

Endorphins

Make exercise more comfortable

Block pain and create euphoria

Morning exercise
has the greatest benefits on memory and mood.



*Neuroscience. 2012 Jul 26;215:59-68.

Exercise = Better Sleep

National Sleep Foundation

“Regular exercise can help you sleep better.”

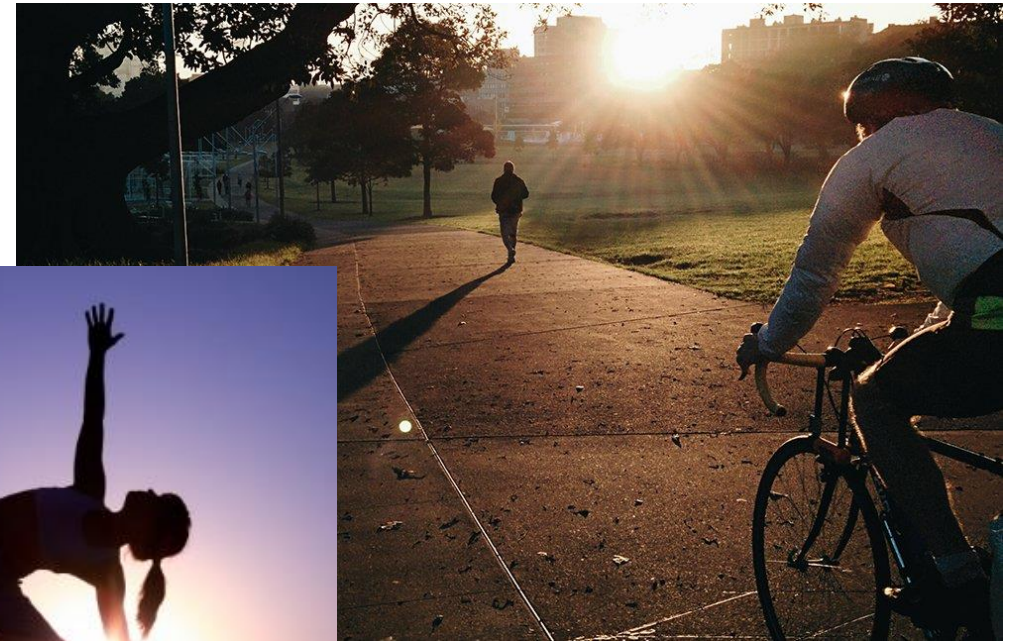


Exercise

Evening (good)

Afternoon (better)

➔ Morning (Best)



Boost your immune system

People who exercise regularly are half as likely to get a cold



Life Expectancy

Exercise = Smoking cessation



=



=

↑ Premature death



Boosts your confidence



Decreases stress



Benefits of
exercise

Increases energy



Be happier



Exercising in Nature vs Indoors

- Higher energy levels
- Greater decrease blood pressure
- Greater reduction in rumination, anxiety, depression
- Significantly improved mood and self-esteem
 - (Five minutes!)



Exercise and diet

- Low fat plant-based diet increases exercise capacity
 - Improves tissue oxygenation



VS





Eat a whole foods plant based diet and exercise in the morning preferably outdoors.