## Physical inactivity is a behavioral risk factor of CVDs:

- https://pmc.ncbi.nlm.nih.gov/articles/PMC2857522/
  - O In a study comparing men riding cars who are physically inactive vs. active, it was found that "for any given amount of time spent riding in a car, men who were physically active [...] maintained lower CVD mortality rates than men who were classified as physically inactive. Research indicates that physical activity is protective against CVD mortality"
- <a href="https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds)#:~:text">https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds)#:~:text</a> = What%20are%20the%20risk%20factors,pollution%20is%20an%20important%20factor.
  - Physical inactivity is a behavioral risk factor of CVDs
- https://pmc.ncbi.nlm.nih.gov/articles/PMC5511058/
  - "Compared with people who were inactive, men meeting the WHO-recommended physical activity level had 7% lower lifetime risk of CVD from age 45 to age 85 years (46% vs. 53%) and women had 11% lower risk (31% vs. 42%"
    - Lifetime risk meaning likelihood of getting the disease, so these findings display that people who meet the WHO-recommendation of physical activity are less likely to develop CVDs than those who don't
- <a href="https://www.health.harvard.edu/heart-health/can-we-reduce-vascular-plaque-buildup">https://www.health.harvard.edu/heart-health/can-we-reduce-vascular-plaque-buildup</a>
  - Exercising can help shrink and stabilize plaque; it can "raise HDL, lower blood pressure, burn body fat, and lower blood sugar levels"
    - https://www.cdc.gov/cholesterol/about/ldl-and-hdl-cholesterol-and-triglycerides.html#:~:text=HDL%20(high%2Ddensity%20lipoprotein),for%20heart%20disease%20and%20stroke.
      - HDL = high-density lipoprotein cholesterol. High levels can lower risk of CVDs and stroke
- https://pmc.ncbi.nlm.nih.gov/articles/PMC8001316/
  - "sitting ≥9 h/day is associated with higher odds for carotid and any territory plaque development independently of physical activity levels and other CVD risk factors"
    - Sitting for extended periods of time is associated with plaque buildup
- <a href="https://www.mayoclinic.org/diseases-conditions/coronary-artery-disease/symptoms-causes/syc-20350613#:~:text=Coronary%20artery%20disease%20is%20caused,to%20narrow%2C%20blocking%20blood%20flow.">https://www.mayoclinic.org/diseases-conditions/coronary-artery-disease/symptoms-causes/symptoms-ca
  - Plaque is buildup of "fats, cholesterol and other substances in and on the walls of the heart arteries". It causes arteries to narrow, thus blocking blood flow

Conclusion: physical inactivity and a sedentary lifestyle is a risk factor of CVDs. Physical activity can raise HDL levels (which can lower risk of CVDs) whereas a sedentary lifestyle can raise plaque levels (which can increase risk of CVDs)

## Who is at higher risks of physical inactivity?

- <a href="https://pmc.ncbi.nlm.nih.gov/articles/PMC5667611/#:~:text=According%20to%20the%2">https://pmc.ncbi.nlm.nih.gov/articles/PMC5667611/#:~:text=According%20to%20the%2</a> 0United%20States,families%20being%20the%20most%20sedentary.
  - "There is a strong relationship between family income and physical activity with low-income families being the most sedentary"

Conclusion: Low-income individuals have higher levels of physical inactivity.

## What is the cause of physical inactivity?

- <a href="https://peacefulplaygrounds.com/featured-articles-members/the-physical-activity-divide-i-s-it-a-public-health-issue-or-a-social-justice-issue/#:~:text=Time%20constraints%3A%20People%20from%20lower,models%20who%20are%20physically%20active.">https://peacefulplaygrounds.com/featured-articles-members/the-physical-activity-divide-i-s-it-a-public-health-issue-or-a-social-justice-issue/#:~:text=Time%20constraints%3A%20People%20from%20lower,models%20who%20are%20physically%20active.
  - Limited access to safe and affordable places to exercise, time constraints, lack of role models, negative stereotypes
- https://pmc.ncbi.nlm.nih.gov/articles/PMC5667611/
  - Low-income children are less likely to exercise because of neighborhood safety, financial difficulty, and busy guardians.