

# GUIDE TO BLOOD PRESSURE MANAGEMENT WITH ACTIVITY



Ask any health practitioner about behavioral control of blood pressure and they will undoubtedly mention physical activity at the top of that list. We are here with a quick guide highlighting this amazing benefit of exercise!



## Acute (short-term) responses



### Expansion is Key

When starting a workout, the central nervous system signals blood vessels to expand in order to deliver more oxygen and nutrients to the muscles. This state of expansion remains for as many as 2-4 hours post exercise, thus, reducing blood pressure below pre-workout levels.

### Seek medical clearance if:

- You have existing high blood pressure and/or history of heart complications.
- You ever have a high blood pressure reading that exceeded **160/120**.
- You experience dizziness or nausea associated with exercise.

### Endorsing Endorphins

Endorphin release during exercise can improve mood. When combined with other mechanisms, this will reduce the harmful effects of stress-hormones (such as increased blood pressure) immediately during and after a workout.



## Chronic (long-term) mechanisms

### Stronger Pump

Regular physical activity makes your heart stronger. A stronger heart can pump more blood with less effort. As a result, the force on your arteries decreases, lowering your blood pressure.

### Rest Easier

Long term exercise lowers your resting heart rate (RHR). The greatest stress on the blood vessels is during a heart beat, the systolic pressure (the higher number of a blood pressure reading). Lowering RHR by even a few beats per minute will have significant long term benefits for the health of blood vessels.

### Weight Management

For those who are overweight or obese, losing as few as 5 pounds will have significant impact on blood pressure independent of all other chronic mechanisms listed above!

- **Take 5 and breathe!**  
You don't always have to move to control blood pressure.
- **Take regular 5-minute breaks** to focus on slow and deep breathing.
- **Emphasize diaphragmatic breaths** (*expanding stomach with diaphragm, instead chest/shoulder*).
- **Try the 4-4-4 method, with eyes closed:**
  - 4 seconds max inhale,
  - 4 seconds hold,
  - 4- seconds passive exhale through pursed lips.
  - Repeat for 5-10 cycles

## Physical Activity

Shoot for 150 minutes of intentional physical activity per week, with a 50-50 mix of strength training and cardio.

- Weight training should include multi-joint exercises like squats, deadlifts, upper body presses, and pulls. If you have existing high blood pressure, avoid holding your breath while performing resistance exercises. Always exhale during the exertion phases of the rep cycle
- Cardiovascular exercise should emphasize working in higher volume and intensity over total time (think shorter/harder effort, NOT longer/easier activity). This can be done using interval training or intermittent bursts at higher intensity.
- On top of the 150 minutes, move often! Get your 10,000 steps, be generally active and reduce sedentary time.
- Get outside. Being out in nature can have a direct calming effect on the body, breaking the stress cycle and further reducing blood pressure.