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**BE STRONG-HEARTED**

**2019**  
is the year of  
**Cardiovascular**  
Health at MDVIP



Only  
**20%**  
of Americans  
get enough exercise  
- CDC

## THE MDVIP GUIDE TO EXERCISE AND HEART DISEASE



Physical Activity Guidelines for Americans, 2nd edition - U.S. Department of Health and Human Services

Exercise is key to good heart health. It reduces your risk of dying from heart disease or having a non-fatal heart attack or stroke, and it lowers your chances of needing procedures like heart bypass.

**Regular exercise also lowers your blood pressure, and it can boost levels of your good cholesterol.**

But if you're sitting too much and not exercising enough, your risk for heart disease sky rockets:

Adults who sit for long periods of time have 1.5 times greater risk for heart attack or stroke and a 90 percent greater chance of death from heart disease. But here's the good news:

Every little bit — from gardening to yoga to walking to running to lifting weights — helps lower your risk for heart attack and stroke. **The more**

**you challenge yourself (within reason), the more it can help your heart.**

In this exercise guide, we'll take you through three exercise types that can help you protect your heart:

- Endurance, the kind that gets your heart pumping;
- Strength, the kind that builds and maintains muscles; and
- Flexibility and balance, the kind that helps with range of motion and injury prevention.

**Before starting any exercise program, talk to your MDVIP-affiliated physician.**

Then use this guide along with the heart-healthy exercise programs available on MDVIP Connect to get moving and keep moving.

Exercise is key to lowering your risk of heart disease so you can **Be Strong-Hearted.**

# ENDURANCE (AEROBIC EXERCISE)

Aerobic exercise is defined as brisk exercise that promotes the circulation of oxygen through the blood and is associated with an increased rate of breathing. **Aerobic exercise lowers your blood pressure and heart rate as well as improves cardiac output (how well your heart pumps) over time.**

Studies have shown that beginning exercise, no matter what stage of life, can be effective in improving the cardiovascular system and lowering your risk for heart disease.

Aerobic exercise also reduces your risk of type 2 diabetes and, if you already live with diabetes, this kind of exercise can help you control your blood glucose. Why is that important? The number one complication of diabetes is heart disease.

## HOW MUCH?

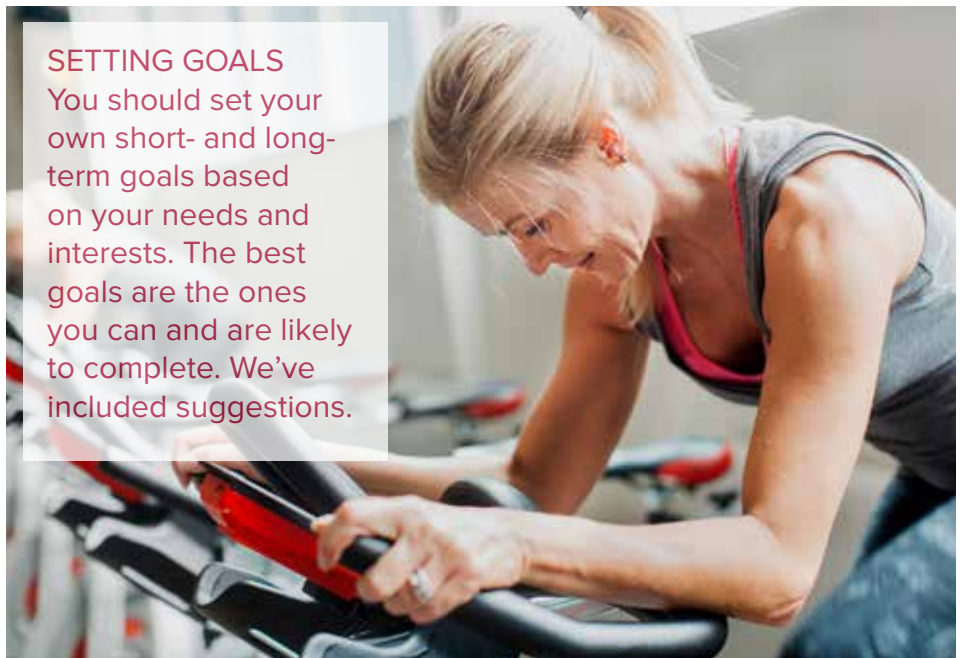
Ideally 30 minutes a day, at least 5 days a week. Some studies have suggested that even light physical activity may assist in the prevention of cardiovascular disease.

## WHERE TO BEGIN?

Everyone is at a different physical level so your aerobic exercise may be different than a friend or family member.

### BEGINNER LEVEL

Try the following activities: Walking around the neighborhood or grocery store, walking up and down the stairs in your house a few times a day, taking a beginner's dance class, playing a sport that you enjoy.



**SETTING GOALS**  
You should set your own short- and long-term goals based on your needs and interests. The best goals are the ones you can and are likely to complete. We've included suggestions.

If you have a step counter (pedometer), try and reach about 8,000 steps a day.

#### Short-Term Goal:

"In the next 2 weeks, I will increase my daily steps from 5,000 to 6,000 steps a day."

#### Long-Term Goal:

"A year from now I will be able to take my grandchildren shopping without getting out of breath."

### INTERMEDIATE LEVEL

Try the following activities: light jogging, swimming, water aerobics, stair stepper, playing tennis, walking the golf course, rowing.

#### Short-Term Goal:

"In the next 2 weeks, I will begin to incorporate some light jogging in my walking routine."

#### Long-Term Goal:

"A year from now I will be able to jog 1 mile without stopping."

### ADVANCED LEVEL

If you are at an advanced level, you may try the following activities: high intensity interval training, sprint series, spin classes, distance rowing, any activity to raise your heart and breathing rate.

#### Short-Term Goal:

"In the next 2 weeks, I will begin to incorporate some interval training in my weekly routine such as sprinting for 30 seconds and then jogging for 2 minutes for a mile."

#### Long-Term Goal:

"A year from now I will be able to finish a half marathon."

## SOURCES

1. LaCroix A, Bellettiere J, Rillamas-Sun E, et al. Association of Light Physical Activity Measured by Accelerometry and Incidence of Coronary Heart Disease and Cardiovascular Disease in Older Women. *JAMA Netw Open*. 2019;2(3):e190419.
2. Shashi K Agarwal. Cardiovascular benefits of exercise. *Int J Gen Med*. 2012; 5: 541–545.
3. Jonathan Myers. Exercise and Cardiovascular Health. *Circulation*. 2003;107:e2–e5.

# STRENGTH (RESISTANCE TRAINING)

Strength training is a method of improving muscular strength and stimulation of muscle development. Strength training is often referred to as resistance training and can be performed using free weights, machines, resistance bands or even a person's own body weight. **Strength training can help you reduce body fat and develop lean muscle mass**, both of which have been shown to help raise HDL (good) cholesterol and lower LDL (bad) cholesterol.

People who carry a lot of body fat (including a big belly) are at an increased risk for heart disease. Studies have shown that patients with high muscle and low-fat mass have a lower mortality risk for cardiovascular disease. Utilizing a body composition scale, you and your doctor can discuss your percent body fat and muscle mass, as well as ways to improve them.

## HOW MUCH?

At least two nonconsecutive days per week.

## WHERE TO BEGIN?

Try to do strength exercises for all of your major muscle groups on two or more days per week for 30-minute sessions each, but don't exercise the same muscle group on any two days in a row. Gradually add more weight or resistance in order to strengthen your muscles.

A repetition, also known as a rep, is one complete movement of an exercise. Try to do 10 to 15 reps for each exercise. Once you are able to easily complete 15 reps, you can progress to a heavier weight or resistance.

### BEGINNER LEVEL

You may need to start out using 1- or 2-pound weights or no weights at all. During the first week, you should use a light weight and then gradually add more.



#### Short-Term Goal:

"In the next 2 weeks, I will begin using perfect fit to incorporate upper body resistance band training into my weekly routine."

#### Long-Term Goal:

"A year from now I will be able to bench-press 45 pounds."

### INTERMEDIATE LEVEL

Try the following activities: pushups, body weight squats, pull ups, machine workouts, free weights.

#### Short-Term Goal:

"In the next 2 weeks, I will increase the weight I curl from 20 pounds to 25 pounds."

#### Long-Term Goal:

"A year from now I will be able to perform 20 chin-ups in a row."

### ADVANCED LEVEL

Try the following activities: weighted pushups, weighted squats, pull ups, machine workouts, free weight workouts.

#### Short-Term Goal:

"In the next 2 weeks, I will increase my personal record for squats by 10 pounds."

#### Long-Term Goal:

"A year from now I will be able to squat 150 pounds."

## SOURCES

1. Srikanthan P, Horwich T, Tseng C. Relation of Muscle Mass and Fat Mass to Cardiovascular Disease Mortality. *American Journal of Cardiology*. April 15, 2016 Volume 117, Issue 8, Pages 1355–1360.
2. Wayne Westcott. Resistance Training is Medicine: Effects of Strength Training on Health. *Current Sports Medicine Reports*: July/August 2012 - Volume 11 - Issue 4 - p 209–216.
3. Kraemer W, Ratamess N, French Duncan. Resistance training for health and performance. *Current Sports Medicine Reports*: May 2002, Volume 1, Issue 3, pp 165–171.



Perform moderate- to high-intensity muscle-strengthening activity at least two days per week.

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## FLEXIBILITY & BALANCE

Flexibility is defined as the range of motion of a given joint or group of joints as well as the ability to extend tissue in a group of muscles. Balance is defined as an even distribution of weight, enabling someone to remain upright and steady. Balance is regulated by an interaction of the nervous system, muscle and joints, and sensory receptors such as the inner ears and eyes.

Flexibility and balance workouts indirectly contribute to heart health by benefitting musculoskeletal health, which enables you to continue to be able to perform daily activities as well as allow you to be able to participate in aerobic and strength training. Flexibility and balance also assist you in preventing joint and muscle pain.

### HOW MUCH?

Every day and before and after strength or aerobic exercises.

### WHERE TO BEGIN?

You can improve your balance anytime, anywhere, as long as you have something sturdy to hold on to should you become unsteady.

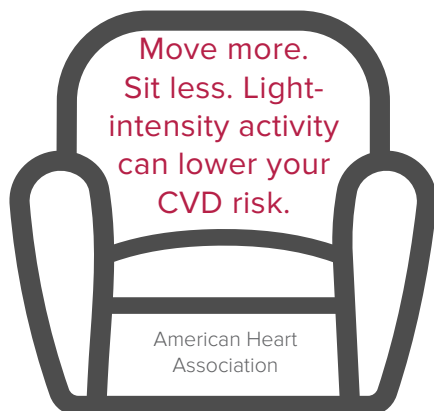
There are many balance exercises you can try on MDVIP Connect.

Always warm up and stretch before doing any physical exercise. Each individual will have different flexibility, but it is imperative that you listen to your body when stretching. It is normal to feel a mild pulling feeling but if you feel a sharp or stabbing pain, you are stretching your muscles and tendons too far. Don't bounce when stretching. Instead, make slow and steady movements.

To improve your balance and flexibility, try a beginner's yoga, tai chi or pilates class, or simply perform some basic movements in the comfort of your own home.

### SOURCES

1. Exercise & Physical Activity. *NIH National Institute on Aging*. March 2018. Publication No. 18-AG-4258.
2. Emilio J, Hita-Contreras F, Lara P, et al. The Association of Flexibility, Balance, and Lumbar Strength with Balance Ability: Risk of Falls in Older Adults. *J Sports Sci Med*. 2014 May; 13(2): 349–357.
3. Yamamoto K, Kawano H, Gando Y, et al. Poor trunk flexibility is associated with arterial stiffening. *American Jn. of Physiology-Heart and Circulatory Physiology*. Vol. 297, No. 4.



# THE BE STRONG-HEARTED EXERCISE PLEDGE

We want you to change your heart disease risk. One way to do that is to integrate exercise into your routine every day. The next time you see your MDVIP-affiliated doctor, take this page with you and determine what exercise you should add — depending on your health, you may be able to do a lot more or a little less. Then keep track and repeat the conversation when you go in for your wellness visit.



## Short-Term Goal:

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## Long-Term Goal:

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- Go for a walk with friends
- Walk \_\_\_ minutes/day
- Go to the gym \_\_\_ /week
- Bike ride \_\_\_ /week
- Join a group exercise class
- Park in the back of the parking lot
- Grow a garden
- Go for a swim \_\_\_ times a week
- Get up and walk around during commercials
- Perform a workout on MDVIP Connect \_\_\_ /week
- Take the stairs more often
- Use a grocery basket instead of cart
- Walk all the aisles in the grocery store
- Schedule walk several times a week
- Take the stairs
- Enroll in a dance class
- Join a recreation league
- Walk \_\_\_ steps more each day
- Go to a Get Fit with Your Doc™ event with your MDVIP-affiliated doctor
- Start a stretching program
- Meet with a personal trainer