

Health Benefits of Exercise



Marshfield Clinic



MINISTRY HEALTH CARE



Two Leaders, One Leading Heart Care Team





According to the U.S. Surgeon General's Report on Physical Activity and Health, people of all ages who are generally inactive can improve their health and well-being by becoming even moderately active on a regular basis.

Multitude of Rewards

Regular physical activity performed on most days of the week reduces the risk of developing or dying from some of the leading causes of illness in the United States, such as heart disease. Regular physical activity can also improve health in the following ways:

REDUCES THE RISK OF:

- Dying prematurely
- Dying from heart disease
- Developing diabetes
- Developing high blood pressure
- Developing colon cancer

HELPS WITH:

- Weight control
- Lowering blood pressure
- Lowering blood sugar
- Maintaining healthy bones, muscles and joints
- Building strength, therefore, reducing falls in older adults
- Psychological well-being
- Raising HDL (good cholesterol)

Most people can and should exercise. Before you start, however, discuss options with your health care provider if you have a medical condition, are middle aged or older, have been a "couch potato," or have an injury. He or she may prescribe an exercise test (particularly if you are at high risk for heart disease) to rule out any problems.



Types of Exercise

A complete exercise program should include three types of activities:

- Aerobic exercise
- Strength or resistance training
- Flexibility exercises

Aerobic Exercise

Aerobic exercises use continuous, rhythmic activity of the large muscles in the legs and buttocks to strengthen your heart and lungs. When you exercise, the muscles demand more oxygen-rich blood and give off more carbon dioxide and other waste. This makes your heart beat faster to keep up. Over time your heart gets stronger and can meet these demands with less effort. Examples of aerobic exercise include:



- Brisk walking
- Jogging
- Bicycling
- Cross-country skiing
- Swimming

The American College of Sports Medicine (ACSM) issued these guidelines for healthy aerobic exercise:

- Exercise 3 to 5 days each week
- Warm up for 5 to 10 minutes before starting (walking or bicycling slowly)
- Maintain your exercise intensity for 30 to 45 minutes or three 10 to 15 minute sessions (aerobic phase)
- Gradually reduce the intensity to cool down the last 5 to 10 minutes



When you first start your aerobic exercise program, gradually (over a period of weeks) increase your aerobic phase from 5 minutes to the recommended 30 to 45 minutes.

Strength or Resistance Training

Strength training done every other day helps to build strong bones and muscles, making everyday chores, like carrying groceries, easier. Ways to accomplish this are:

- Take a strength training class with weights, elastic bands or plastic tubes
- Lift light weights at home

Flexibility Exercises

Flexibility exercises, also called stretching, help keep joints flexible and reduce the chances of injury during other activities. Gentle stretching for 5 to 10 minutes after aerobic exercise, when the muscles are “warmed up,” is recommended.



Monitor Your Workout

Monitoring your heart rate and exertion level during your workout is important to ensure you are getting the most benefit from your program.

Heart Rate

To achieve the most cardiovascular benefit, the ASCM recommends that the aerobic phase of your exercise be at 50-85% of your maximum heart rate. This is called your target heart rate (THR).

Age	20	30	40	50	60	70
Target Heart Rate Zone (50-85%)	100-170	95-162	90-153	85-145	80-136	75-128
Average Maximum Heart Rate (100%)	200	190	180	170	160	150

To calculate your target heart rate, use the following formula:

- $220 - \text{your age} = \text{Maximum Heart Rate (MHR)}$
- $\text{MHR} \times 0.5 = 50\% \text{ of MHR}$
- $\text{MHR} \times 0.85 = 85\% \text{ of MHR}$

Monitor your heart rate during exercise by taking your pulse or using a pulse monitor. Check with your local sports store for a monitor that best fits your needs.

How to take your pulse

With each heartbeat the arteries expand and contract and can be felt at certain places on your body such as the wrist or neck. This is your pulse. Your pulse rate is the number of heart beats felt in one minute. Pulse rate and heart rate are the same and indicate how hard your heart is working. Generally, it is lower at rest and higher with activity. During exercise, your goal is to have your pulse rate reach the calculated target heart rate.

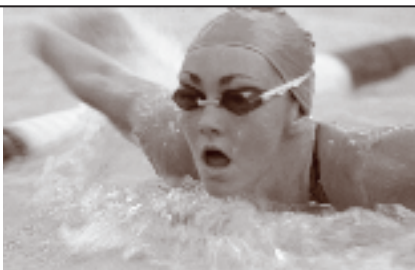
- Place your index and middle finger over the outer portion of your opposite wrist, palm side up.
- Press gently until you feel pulsation or throbbing.
- Watching the second hand on a clock or wristwatch, count each beat you feel in 10 seconds.
- Multiply that number by 6. This is the number of times your heart beats in one minute (heart rate).

Exertion

Knowing how much effort you put into your workout is another important component in monitoring its effects.

The Borg Rating of

Perceived Exertion (RPE) scale was designed to help you *listen to your body* while exercising. It's based on how hard you feel like your body is working based on things like heart rate, breathing, sweating and muscle fatigue.



BORG RATING OF PERCEIVED EXERTION

RPE

6

7 Very, very light

8

9 Very light

10

11 Fairly light

12

13 Somewhat hard

14

15 Hard

16

17 Very hard

18

19 Very, very hard

20

sitting, reading,
watching TV, relaxed

walking slowly for
some minutes

somewhat hard but
still feels OK to continue

you can still go on, but
you have to push yourself

the most strenuous exercise
you've ever experienced

Shaded area (11-13) is the recommended exercise level.

To use: While doing a physical activity, rate how hard you feel your body is working. Try not to focus on any one factor, like shortness of breath, but rather on your total feeling of exertion. Choose the number from the chart above that best describes your level of exertion. An RPE of 11 to 13 is recommended to get the most from your workout. You can use this rating to speed up or slow down your workout to achieve the desired range.



The Greatest Risk to Exercise is Not Starting

You should consider several factors when choosing an aerobic activity for your personal fitness program:

- **Impact** - Some activities involve jumping or pounding which may be uncomfortable or can lead to injury. Swimming, cross country skiing, in-line skating, cycling and rowing are easier on the joints.
- **Convenience** - Some aerobic activities require expensive equipment, are seasonal or are not readily available in certain locations.
- **Skill** - Activities that require a lot of skill can discourage you. Choose one that fits your interests and skill level.
- **Social factor** - Exercising with a group can be fun and beneficial, which will make you more likely to stick with it.

Being Active Throughout the Day

In addition to formal exercise, there are many opportunities to be active throughout the day. Being active helps burn calories. The more you move around, the more energy you'll have.



These strategies can help increase your activity level:

- Take the stairs instead of the elevator.
- Walk instead of drive whenever possible.
- Work in the garden, rake leaves or do some housecleaning every day.
- Park at the far end of the shopping center lot and walk to the store.

Staying Motivated

Only one-third of those who begin an exercise program are still exercising by the end of their first year. The good news is that with some planning, you can beat the dropout odds and make exercise a regular part of your daily routine. Here are some tips to help you stay motivated:

- **Find a Fitness Partner**
- Studies show that you stick with an exercise program better when you have a partner. Find a family member or friend who will exercise with you.
- **Start an Exercise Log or Journal** - Nothing is more motivating than seeing the progress you make. You can use a calendar, journal or computerized log to keep track of your achievements.
- **Schedule Your Workouts**
Make exercise a priority and schedule workouts on your daily planner or calendar.





- **Dress the Part** - Wear comfortable clothes and shoes appropriate for exercising.
- **Entertain Yourself** - If you exercise alone consider listening to music, watching TV, or if your equipment has a book rack, read a book.
- **Evaluate Your Progress** - Your local health club or healthcare provider can help you evaluate your fitness progress.
- **Make Exercise Non-Negotiable** - Think of exercise as something you do without question, like brushing your teeth or going to work. Eventually it will become a habit.

You can do it if you try!

For more information on the Marshfield Clinic and Ministry Health Care heart care team, ask your health care provider or visit www.oneheartcareteam.org.

References: American College of Sports Medicine (ACSM)
Centers for Disease Control



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