

BASIC EXERCISE INFORMATION

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Welcome to the Stanly County Family YMCA's Training Time link for [Basic Exercise Information](#). The purpose of this site is to provide some basic information regarding fitness training and general exercise guidelines. All information contained, herein, has been taken from nationally accepted activity guidelines. It is recommended that individuals should seek approval from their physician before beginning any type of exercise program.

What Is Physical Fitness?

Physical Fitness is defined as a person's ability to perform daily tasks vigorously and alertly, with energy left over for enjoying leisure time activities and meeting emergency demands. It is the ability to endure or withstand stress and to carry on in circumstances where an unfit person could not continue. There are 5 basic components of physical fitness.

- 1) **Cardio Respiratory Endurance:** This is the capacity of your heart, blood vessels and lungs to work over sustained periods of time, delivering nutrients and oxygen to the working muscles and tissues.
- 2) **Muscular Strength:** This is the ability of a muscle or group of your muscles to exert a maximum force for a brief period of time.
- 3) **Muscular Endurance:** This is the ability of a muscle or group of your muscles to exert force against a resistance repeatedly over a sustained period of time.
- 4) **Flexibility:** This is the ability to move your joints and use your muscles through their full range of motion.
- 5) **Body Composition:** This is the makeup of your body in terms of your lean body mass, (which includes muscles bones vital organs and tissues), and your body fat.

Your Healthy Lifestyle and level of Physical Fitness is related to a number of factors including heredity, medical situations, nutrition, stress, sleep, making sound decisions concerning the use/abuse of alcohol, tobacco and non-prescription drugs and practicing sound health and safety habits. An appropriate Exercise Program can greatly enhance your level of Physical Fitness, and help add a higher level of quality to your life.

Components Of An Exercise Program

Every exercise program, whether for an individual or a group class activity, should incorporate 5 basic exercise components. A properly designed program including a Warm Up, Cardiovascular Exercise, Muscular Strength And Endurance Exercises, Flexibility Training and a Cool-Down, will help ensure that you get a safe, effective workout, every time.

Warm-Up: The Warm-Up portion of your workout is designed to gradually increase your heart rate and body temperature in preparation for the more vigorous activities that will follow. The minimum recommended time for a Warm-Up is 5 minutes

Cardiovascular: Cardiovascular Exercise, (some examples are walking, running, bicycling, swimming, aerobic exercise class), elevates your heart rate into your training heart rate range to achieve cardiorespiratory conditioning. The minimum recommended time for a Cardiovascular Exercise session is 20 minutes

Muscular Strength and Endurance: Muscular Strength and Endurance exercises, (some examples are weight lifting, calisthenics, Yoga, Pilates), increases the strength and endurance of muscles not used in the cardiovascular phase of your exercise program. The minimum recommended time for a Muscular Strength and Endurance exercise session is 10 minutes

Flexibility Training: Flexibility exercises (some examples are total body stretching stretch class, Yoga) help to maintain or increase the range of motion of all joints and muscles used during your exercise program. Stretches should be done slowly and held in a stable position. Do Not Do Ballistic Stretches...that is stretching with a bouncing motion. The minimum recommended time for Flexibility Training is 5 minutes

Cool-Down: The Cool-Down portion of your exercise program can include slower types of cardiovascular activities as well as stretching. Flexibility training, in fact, can be used in conjunction with the Cool-Down part of your exercise program. The Cool-Down allows for slow and gradual recovery of your heart rate and helps prevent blood from pooling in your extremities. The minimum recommended time for a Cool-Down is 5 minutes

What Is Exercise Frequency?

Exercise Frequency is how often a particular exercise routine takes place. It is recommended that exercise should be a part of your regular schedule 3 to 5 days out of every week.

What Is Exercise Intensity?

Exercise Intensity is how hard your body is working during exercise. When participating in **Aerobic Exercise** (Walking, Jogging, Swimming or Water Workout, Biking or

Aerobic Dance Class), it is recommended that you train between 55/65% and 90% of your maximum heart rate.

When participating in **Strength Training** exercises, it is recommended that you train with a weight that you can successfully complete 8 to 12 repetitions of the exercise with.

What Is Exercise Duration?

Exercise Duration is the length of time you exercise each day. It is recommended that you accumulate 20 to 60 minutes of continuous **Aerobic Activity** 3–5 days per week.

When participating in a **Strength Training** program it is recommended that you complete a minimum of one set of 4-6 exercises for the lower body, and one set of 6-8 exercises for your upper body 2-3 days per week.

What Is Exercise Progression?

Exercise Progression means that your body must be exposed to progressively greater work loads as it adapts to the demands of exercise. If you always do the same strength exercises, with the same amount of weight or the same aerobic exercises at the same speed for the same amount of time, your body will get use to those exercises and will not respond well to your exercise program. Exercise Frequency, Intensity, and Duration must all be **GRADUALLY INCREASED** over time in order to see cardiovascular improvements, weight loss and/or strength gains

What Is Training Heart Rate?

Your training heart rate is a percentage of your maximum heart rate that is calculated based on your current age. Your training heart rate is a range that represents your body's most efficient exercising intensity. To calculate your training heart rate you must first know your Maximum Heart Rate. This is figured by subtracting your age from 220

$$220 - (40 \text{ year old})$$

$$220 - 40 = \mathbf{180 \text{ beats per minute}}$$

180 heart beats per minute is this 40 year olds **Maximum Heart Rate**

This 40 year olds training heart rate will be a percentage of the 180 beats per minute that represents their maximum. These percentages are 55% - 90%. (**55– 80% for beginners**)

$$\mathbf{55\% \text{ of } 180 \text{ beats per minute} = \mathbf{99 \text{ beats per minute}}$$

$$\mathbf{90\% \text{ of } 180 \text{ beats per minute} = \mathbf{162 \text{ beats per minute}}$$

This 40 year olds **Training Heart Rate Range is 99 – 162 beats per minute**. As this person runs or swims or bicycles or participates in any other type of aerobic exercise activity, they should make sure that during the majority of their exercise time, their heart is beating between **99** and **162** beats each minute.

NOTE

A simple way to make sure you are in your training heart rate zone during exercise is to **count your pulse for 10 seconds and multiply the number of beats you feel by 6.**

You can feel your heart beat (Pulse) either on the thumb side of your wrist or just to the side of your Adam's apple on your neck.

What Is Perceived Exertion?

Perceived Exertion is a subjective determination of how hard you are working, just by how you are feeling during your exercise program. Some people can not feel their pulse very well during exercise, or they may be on medications that limit their heart's ability to elevate beyond a certain point. A scale of perceived exertion is used for these people. This scale is a number scale between 6 and 20, with the factors as follows.

6 =	No Exertion At All
7 =	Extremely Light Exertion
9 =	Very Light Exertion
11 =	Light Exertion
13 =	Somewhat Hard Exertion
15 =	Hard Exertion
17 =	Very Hard Exertion
19 =	Extremely Hard Exertion
20 =	A Maximum Effort

Your Ideal Exercise Exertion should be somewhere between a 9 and a 15.

BASIC STRENGTH TRAINING INFORMATION

Reps A rep or repetition is one complete movement in an exercise, from the starting position, through the entire range of the exercise activity, and then back to the starting position. On the bench press, for example, lowering the bar to your chest and pushing it back up from your chest is one repetition

Sets A set is a certain continuous number of repetitions. If you performed ten repetitions of the bench press before stopping, those ten repetitions equal one set.

Speed The speed with which an exercise should be completed is approximately 5-8 seconds per repetition. This equates to 2 – 3 seconds for the first half of the exercise (primary contraction) and 3 – 4 seconds for the second half of the exercise (secondary contraction). Faster repetitions tend to reduce the amount of muscle stimulus due to the increase in momentum of the exercise. When in doubt, slower is better.

Muscle Balance Through Strength Training

Many people like to exercise what we call their mirror muscles. That is, they exercise to improve the strength and size of the muscles that they can see when they look at themselves in the mirror. This exercise technique can lead to muscle imbalances and joint injuries due to unequal forces constantly working on your body. A Total Body approach to your exercise program is recommended for safe and effective exercise.

Sample Basic Exercise Program Design

It is recommended that individuals should seek approval from their physician before beginning any type of exercise program.

- **Warm Up** by walking on the treadmill for 10 minutes at a comfortable walking pace.
- Complete a 20 minute **Cardiovascular** exercise program, of your choice, on the treadmill at a speed and elevation profile that raises your heart rate into your training heart rate range.
- Complete one set of 10 repetitions, using proper form, of the following **Strength Training** exercises.

Bench Press
Lat Pulldown
Abdominal Crunch
Lower Back Machine
Rotary Torso Machine
Leg Extension
Leg Curl
Leg Press
Calf Press
Overhead Press
Biceps Curl
Triceps Pressdown

For a description of each exercise please visit the **Strengthen & Stretch** link included in Training Time With John and Kristen.

- Finish up your workout with a **Cool-Down** including 5 minutes of Slow Bicycle Riding on the Schwinn Airdyne Bicycle, followed by 5 minutes of total body **Stretching**. Be sure to include stretches for all the muscle groups you worked during the workout portion of your program. For information on proper stretching after your workout, please visit the **Strengthen & Stretch** link included in Training Time With John and Kristen.