Your Fitness and Wellness Guide

Midland College Kinesiology Department
Division of Social and Behavioral Sciences
# Table of Contents

**Introduction**

<table>
<thead>
<tr>
<th>Chapter 1</th>
<th>The Basics - Lifetime Physical Fitness, Health, and Wellness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 2</td>
<td>A &amp; P - 101 - Anatomy and Physiology of your body</td>
</tr>
<tr>
<td>Chapter 3</td>
<td>Eat to Live Not Live to Eat - Nutrition</td>
</tr>
<tr>
<td>Chapter 4</td>
<td>Scale Time - Weight Management</td>
</tr>
<tr>
<td>Chapter 5</td>
<td>Move it! - Motivation and Goal Setting</td>
</tr>
<tr>
<td>Chapter 6</td>
<td>Don't Hurt Yourself! - Safety Precautions</td>
</tr>
<tr>
<td>Chapter 7</td>
<td>How Do I Get Started? - Program Development and Training Concepts</td>
</tr>
<tr>
<td>Chapter 8</td>
<td>How am I Doing? - Evaluation and Self-Assessment</td>
</tr>
</tbody>
</table>
Introduction

Your Fitness and Wellness Guide

You have chosen to take a Kinesiology course that will provide activity that promotes lifetime fitness and wellness. As a supplement to the information and knowledge that will be provided throughout the semester, this guide will encourage lifetime wellness and give you the information needed to incorporate a fitness and wellness plan into your daily life. The information is basic nuts and bolts without a lot of detail. It provides just enough information to set up and implement a fitness program without overwhelming you with material that is provided in other courses directly related to fitness and wellness.

With the realization that this course may be the last Kinesiology credit needed to complete your degree, this manual will attempt to provide a final opportunity to inform you of the importance of lifetime fitness and wellness and encourage you to embark on a program that is enjoyable as well as beneficial to your entire body.
Chapter 1

The Basics - Lifetime Physical Fitness, Health and Wellness

**Physical Fitness:** The ability of your body systems to work together, with the least amount of effort, allowing you to be healthy and effectively perform activities for daily living.

- **Components of Physical Fitness**
  - health-related components: flexibility, body composition, muscular endurance, muscular strength, and cardiovascular endurance.
  - skill-related components: speed, agility, balance, coordination, reaction time, and power.

**For the purpose of promoting lifetime fitness and wellness the following information will focus on the health-related components of physical fitness. The skill-related components are generally the concentrated focus for improvement of athletic performance.**

**Health:** The absence of illness and disease with a major emphasis on the importance of prevention and treatment of illness and disease.

**Wellness:** A composite term that includes all components of health of every individual: physical, emotional, environmental, spiritual, intellectual, and social.

- **Physical:** Includes such characteristics as: body size and shape, susceptibility to disease and disorders, body functioning, physical fitness, and recuperative abilities. It also includes our ability to perform activities of daily living such as being able to get out of bed in the morning, to being able to bend over and tie your shoes.

- **Emotional:** The feeling component that enables you to express emotions at appropriate times and in an appropriate manner. This also includes your self-esteem, self-confidence, the ability to trust and love.

- **Environmental:** Appreciation of the environment, preserving, protecting, and improving the environment that surrounds us.
• **Spiritual:** An appreciation of life and all that lives. It could include the feeling of being a part of a greater spectrum of existence. A person with healthy spiritual wellness is able to experience love, joy, pain, sorrow, peace, and contentment.

• **Intellectual:** The ability of the mind to think, reason, analyze critically. It is learning from successes and mistakes, and making sound decisions taking in all aspects of a situation.

• **Social:** The ability to interact with and appreciate a variety of personalities. The ability to have interpersonal relationships.

Although each component is a separate entity, they are all interconnected and react both positively and negatively with one another. For example if you have gained unwanted weight, affecting your physical component, there is a chance that your emotional component could be affected by depression. Once depressed due to the weight gain, your social involvement may dwindle. Yet when the opposite happens the reaction may be completely different. When a person loses unwanted weight they tend to become a happier person, and have a better self concept. A happy person tends to be more confident to socialize with others. They also has a happier outlook on life in general, thus affecting the spiritual component as well.
Chapter 2

A & P - 101 - Anatomy and Physiology of Your Body

The human body is composed of approximately 650 muscles and 206 bones. The muscles are divided into three types: skeletal that attaches to bones and is responsible for support and movement; smooth that is considered involuntary. Examples are the walls of arteries, the iris of the eye, and the gastrointestinal tract. The third is cardiac, the heart muscle.

In reference to any physical activity, in order for skeletal muscles to contract they must be attached to bones to create movement. Muscle refers to a number of muscle fibers that are bound together by connective tissue called tendons, located at the ends of each muscle. The tendons attach the muscle to bones.

• Muscle fibers are so small that 1/4 sq. inch would contain a million of them.
• The body's strongest tendon is the Achilles tendon, located directly above the heel.
• The body's biggest muscle is the gluteus maximus in the buttock.
• The body's strongest muscle is the masseter, known as the jaw muscle.

The following is a chart of the major muscles used for normal activities of daily living and is the focus for physical fitness improvement:
Muscles work by contracting. This makes them shorter and thicker so that they pull on whatever bone or other part of the body they are attached to, thereby making it move. During exercise, the fibers that make up the muscle contract. The more the muscle is used the thicker the fibers become. They contract more effectively, which means the muscle is stronger.

Muscles work in pairs. Since a muscle can only pull (contract), it must therefore relax and let the opposing muscle contract in order create the opposite movement. For example, in order to bend the elbow the bicep muscle contracts while the tricep muscle relaxes. In order to straighten the arm the bicep muscle relaxes and the tricep muscle contracts.

Muscles become stronger through a 3-step process:

- Stress
- Recovery (rest)
- Repeated stress

When you exercise against resistance, you stress your muscles slightly but not to the point of serious damage or injury. When you rest, your body rebuilds the muscles and the connective tissues between them (joints, tendons, and ligaments) in a way that prepares them for the next time they will be stressed. When you stress the same muscles again, the process is repeated, and the muscles gradually become stronger.

Strength training is a highly recommended form of exercise. It is a great idea to include it into any type of workout that you have chosen to perform. It can improve your body's strength and endurance allowing you to function with less effort throughout your day. It can result in the following health benefits:

<table>
<thead>
<tr>
<th>Increases in:</th>
<th>Decreases in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscular strength and endurance</td>
<td>Blood sugar</td>
</tr>
<tr>
<td>Lean body mass (muscles)</td>
<td>Body fat</td>
</tr>
<tr>
<td>Calories burned (metabolism)</td>
<td>Psychological stress</td>
</tr>
<tr>
<td>Bone mineral density</td>
<td>Body aches and fatigue</td>
</tr>
<tr>
<td>Overall stability and balance</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 3

Eat to Live, Not Live to Eat - Nutrition

**Nutrition**: The science of how living things use the nutrients in food.

There are six basic nutrients in food:

- **Proteins** - build, maintain, and repair body tissues.
- **Carbohydrates** - main source of fuel.
- **Fats** - concentrated sources of energy, aids in vitamin absorption, enhances how foods taste.
- **Vitamins** - essential nutrients that the body cannot produce.
- **Minerals** - builds muscle, bones, teeth, hair; regulates chemical reactions.
- **Water** - works as a solvent; digestion, transports waste

Scientific evidence has shown for many years that good nutrition is linked to overall health and well-being. Proper nutrition means that a person's diet supplies all of the essential nutrients needed to carry out normal tissue growth, repair, and maintenance. Following the general guidelines within the Food Guide Pyramid should produce the energy necessary for work, physical activity, and relaxation. For a more personal approach to designing an eating plan visit the U.S. Government's website at [www.mypyramid.gov](http://www.mypyramid.gov).
The Food Guide Pyramid

Fats, Oils, and Sweets
USE SPARINGLY

Milk, Yogurt, and Cheese Group
2-3 SERVINGS

Vegetable Group
3-5 SERVINGS

Meat, Poultry, Fish, Dry Beans, Eggs, and Nuts Group
2-3 SERVINGS

Fruit Group
2-4 SERVINGS

Bread, Cereal, Rice, and Pasta Group
6-11 SERVINGS

What counts as one serving?

**Breads, Cereals, Rice, and Pasta**
- 1 slice of bread
- 1/2 cup of cooked rice or pasta
- 1/2 cup of cooked cereal
- 1 ounce of ready-to-eat cereal

**Vegetables**
- 1/2 cup of chopped raw or cooked vegetables
- 1 cup of leafy raw vegetables

**Fruits**
- 1 piece of fruit or melon wedge
- 3/4 cup of juice
- 1/2 cup of canned fruit
- 1/4 cup of dried fruit

**Milk, Yogurt, and Cheese**
- 1 cup of milk or yogurt
- 1 to 2 ounces of cheese

**Meat, Poultry, Fish, Dry Beans, Eggs, and Nuts**
- 2 1/2 to 3 ounces of cooked lean meat, poultry, or fish
- Count 1/2 cup of cooked beans, or 1 egg, or 2 tablespoons of peanut butter as 1 ounce of lean meat (about 1/3 serving)

**Fats, Oils, and Sweets**
LIMIT CALORIES FROM THESE

How many servings do you need each day?

- **Women and some older adults**
- **Children, teen girls, active women, most men**
- **Teen boys and active men**

<table>
<thead>
<tr>
<th>Category</th>
<th>Women and some older adults</th>
<th>Children, teen girls, active women, most men</th>
<th>Teen boys and active men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calorie level*</td>
<td>about 1,600</td>
<td>about 2,200</td>
<td>about 2,800</td>
</tr>
<tr>
<td>Bread group</td>
<td>6</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Vegetable group</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Fruit group</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Milk group</td>
<td>2-3**</td>
<td>2-3**</td>
<td>2-3**</td>
</tr>
<tr>
<td>Meat group</td>
<td>2, for a total of 5 ounces</td>
<td>2, for a total of 6 ounces</td>
<td>2, for a total of 7 ounces</td>
</tr>
</tbody>
</table>

*These are the calorie levels if you choose leaner, lower-fat foods from the 5 major food groups and use foods from the fats, oils, and sweets group sparingly.
**Women who are pregnant or breastfeeding, teenagers, and young adults to age 24 need 2 to 3 servings.

A Closer Look at Fat and Added Sugars

The small tip of the Pyramid shows fats, oils, and sweets. These are foods such as salad dressings, cream, butter, margarine, sugars, soft drinks, candies, and sweet desserts. Alcoholic beverages are also part of this group. These foods provide calories but few vitamins and minerals. Most people should go easy on foods from this group.

Some fat or sugar symbols are shown in the other food groups. That’s to remind you that some foods in these groups can also be high in fat and added sugars—such as cheese or ice cream from the milk group or french fries from the vegetable group. When choosing foods for a healthy diet, consider the fat and added sugars in your choices from all the food groups, not just fats, oils, and sweets from the Pyramid tip.

Source: Developed by the U.S. Department of Agriculture to promote a healthy diet for people in the United States.

Figure 7.4 Food Guide Pyramid.
Too much or too little of any nutrient can promote serious health problems. The typical American diet is too high in calories, sugar, fat (especially saturated fat), and salt, and falls short in the fiber category. Food availability is not the problem. Portion distortion is the culprit. Americans are simply eating too much food! Dietary excess and imbalance is the root to many chronic diseases. Diets high in saturated fats (typically solid at room temperature) and cholesterol increases the risk for atherosclerosis (fatty build up on arterial walls) and coronary heart disease. High salt intake has been linked to high blood pressure in sodium-sensitive people. It is estimated up to 30-50 percent of all cancers may be diet-related. Obesity, diabetes, and osteoporosis also have been associated with poor nutrition choices.

To lower the risk for chronic disease, healthy eating recommendations are as follows:

- Let the Food Guide Pyramid guide your food choices.
- Eat a variety of foods daily, especially grains, fruits, and vegetables. Many of these foods are high in nutrients, starch, and fiber.
- Avoid too much fat, saturated, fat, and cholesterol such as prime beef; “dark meat” poultry and poultry skin; butter and other whole-milk dairy products; and tropical oils such as coconut, palm, and palm kernel.
- Avoid too much sugar and salt.
- Try to maintain adequate calcium intake with foods such as plain yogurt, American, cheddar, mozzarella, and ricotta cheeses, milk (skim or low fat), and orange juice with added calcium.
- Maintain recommended body weight.
- Drink alcohol in moderation, if at all.

The three factors that do the most to promote good health and add quantity and quality of years to life are proper nutrition, a sound exercise program, and quitting (or never starting) smoking. The sooner you incorporate the dietary guidelines presented in this chapter, the better your chances of preventing chronic diseases and reaching a healthier state of wellness.
Your body is composed of two types of weight: lean weight, known as fat-free mass, and fat weight, known as fat mass. Lean weight is composed of bones, muscles, internal organs, and body fluids. Fat weight is stored energy, insulation for the body, and protection of vital body organs. The amount of each type of weight is important to know when trying to establish the healthy nature of your body. When fat weight far exceeds lean weight the promotion of chronic illness possibly leading to death, is present.

Body fat is classified as either essential fat or storage fat. Essential fat constitutes about 3% of total fat in men and 10-12% in women. Storage fat is the fat stored in adipose tissue, mostly beneath the skin and around major organs in the body. The amount of fat does not differ between genders, but the location on men is generally around the waist and women more so around the hips and thighs.

There are many procedures available in order to determine body fat percent. Fortunately the Midland College Kinesiology Department possesses a Bioelectrical Impedance Analysis (BIA) machine that determines weight, body fat percent, fat mass, fat-free mass, total body water, and also provides the desirable range for body fat determined by age, height, and weight. Two other popular methods are the skin-fold thickness measurement and the Body Mass Index. Both have advantages and disadvantages and neither are as accurate as the BIA machine.

**Healthy body fat ranges for a standard adult population are as follows:**

<table>
<thead>
<tr>
<th>AGE</th>
<th>Under-fat</th>
<th>Healthy</th>
<th>Over-fat</th>
<th>Obese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>20-39</td>
<td>&lt;21%</td>
<td>21-33%</td>
<td>33-39%</td>
</tr>
<tr>
<td>40-59</td>
<td>&lt;23%</td>
<td>24-34%</td>
<td>35-40%</td>
<td>&gt;40%</td>
</tr>
<tr>
<td>60-70</td>
<td>&lt;24%</td>
<td>25-35%</td>
<td>36-42%</td>
<td>&gt;42%</td>
</tr>
<tr>
<td>Male</td>
<td>20-39</td>
<td>&lt;8%</td>
<td>8-20%</td>
<td>20-25%</td>
</tr>
<tr>
<td>40-59</td>
<td>&lt;11%</td>
<td>11-22%</td>
<td>22-28%</td>
<td>&gt;28%</td>
</tr>
<tr>
<td>60-70</td>
<td>&lt;13%</td>
<td>13-25%</td>
<td>25-30%</td>
<td>&gt;30%</td>
</tr>
</tbody>
</table>

**In more general terms:**

- Males under the age of 30 should fall between 14-20%
- Males over the age of 30 should fall between 17-23%
- Females under the age of 30 should fall between 17-24%
- Females over the age of 30 should fall between 20-27%
Goals of Weight Management:

- **Weight Maintenance:** keeping the same ratio of fat mass to fat-free mass. Calories in (eating) = calories out (exercise) on a daily basis.

- **Weight Gain:** increasing muscle mass, not adding to the body's fat mass. Combine an increase in caloric intake with a weight training program. Calories in > calories out on a daily basis.

- **Weight Loss:** purposefully losing fat mass, not fat-free mass. This is best accomplished with a combined program of proper nutrition and exercise. Calories in < calories out on a daily basis.

Although some Americans have reached the goal of weight maintenance, and even some that wish to gain weight, obesity has become an epidemic and weight loss has become the most prominent goal to achieve.

The following are a few weight loss principles:

- To lose one pound of fat: 3500 calories divided by 7 days a week = 500 calorie deficit a day from the daily number of calories that maintain present weight.

- Fat weight is the only weight to lose.

- If water weight loss occurs during exercise, it should and will return within 24 hours.

- Fat is metabolized more readily and efficiently by performing moderate-intensity exercise for more than 30 minutes to make a significant difference.

- Fat burns off your body from head to toe. There is no spot reducing.

- Loss of fat weight is best accomplished through proper nutrition and exercise.

- Eating less food is easier than working it off.

- Extremely low calorie diets do not work for the long term. They slow down your metabolism due to the severe calorie deficit.

- Lowering stress levels may play a positive roll in the ability to lose weight.
Chapter 5

Move it! - Motivation and Goal Setting

Motivation is the energy that fuels our behavior. Behavior is motivated by a desire to reach certain goals that give value or meaning to our lives. Generally, the force of effort maintained by individuals toward their goals is determined by two factors: their perceived chances of achieving the desired outcomes and the degree of value they place on the outcomes. For example a person may ask themselves what the chances are of losing twenty-five pounds, and once lost, what value is that twenty-five pound loss to them.

Before starting an exercise program it is important to evaluate your true desire to work out. It must be an intrinsic desire in order to have the greatest chance for success. Until you are truly motivated to improve your fitness level, attempts for any other reason usually end up in failure.

Once you start your exercise program there is one thing to keep in mind. Behavior change and positive results take time and patience.

The following are a few guidelines to keep you exercising:

• If using a fitness facility, choose one close to work or home.

• To avoid boredom vary your exercises periodically.

• Set realistic goals that are attainable within a reasonable amount of time.

• Record your progress from the beginning and throughout your program.

• Don't be obsessive about exercise. Listen to your body and give it adequate rest.

• Be patient and stay with it. Benefits usually take a few months to become noticeable.

• Set a specific time for your workouts yet allow for some flexibility.
In order to set realistic and achievable goals there are a few things to keep in mind.

- Accept the things that cannot be changed and change the things that can.
- Perform fitness tests in order to establish a starting point. (See Fitness Tests for Goal Setting).
- Put goals in writing and place them where you will see them every day.
- Set short term and long term goals. (2 lbs./week, and 16 lbs./2 months)
- Goals need to be measurable (wanting a "smaller" waistline is not measurable. Wanting to take 2 inches off the waistline can be calculated with a tape measure)
- Set target dates for achieving goals (remember that long term weight loss will best be achieved by losing no more than 1-2 pounds per week)
- Re-establish goals as goals are met.
- Reward yourself after achievement of a goal.

**Fitness Tests for Goal Setting**

In order to determine the direction for your program a starting point needs to be established.

The following are common fitness tests used to determine your overall fitness level:

- **Body composition analysis** - establish starting weight and body fat percent
- **Trunk flexibility** - establish the initial level of flexibility of the hips and back (a general test for flexibility)
- **One minute push up test** - establish the initial level of muscular strength/endurance of upper body muscles.
- **One minute crunch test** - establish the initial level of muscular strength/endurance of the core muscles.
- **One mile walk/jog for time** - establish the initial level of cardio-respiratory endurance.

The same battery of tests may be performed periodically to determine success of the fitness program as well as to re-establish goals as goals are met.
Chapter 6

Don't Hurt Yourself! - Safety Precautions

Injuries and ill-health can happen to everyone. Whether you are just starting a program or have been in a sound exercise regime for years, sickness and injuries always have the possibility to occur.

The following are some sensible training guidelines that may help to avoid problems that may hinder your workout:

- Progress slowly, making intensity changes every few weeks or according to the ability of your body to take on the challenge.

- Warm up and cool down should be included in each workout session

- Progress from easy to advanced or moderate to vigorous.

- Perform activity to the level beyond what is comfortable but not to total exhaustion.

- There is a difference between pain and soreness. One is usually sharp that causes activity to cease, and the other is more annoying and usually subsides within a few days to a week.

- If you are physically ill, depending on severity, either slow down the intensity of the workout or take time off to fully recuperate.

- Upon returning from an illness, start slowly and gradually work back into the intensity you had before the illness. Your body has weakened and needs time to work back up to pre-illness strength and endurance.

- Consider surface type when performing any aerobic activity on land. Concrete has no “give” and imposes a great deal of stress on legs and feet. A wood surface or padded floor is the preferred surface for such activities.

- Air temperature and humidity levels need to be considered during an exercise bout. If above 85 degrees, with high humidity, try to find an alternate location for exercise. If below 40 degrees it is advised to cover your body in light layers of clothing, and cover air passageways to avoid breathing difficulties that could occur.
• Purchase shoes that are designed for the mode of exercise that you intend to do. Shoe design can either enhance or hinder your performance. If any foot problems exist consider an orthotic or padding to promote foot comfort.

• Dress in layered clothing when exercising in cold weather and wear as little as possible while exercising in the heat.

• Cotton socks will help prevent blisters and absorb moisture.

• Drink water before, during, and after exercise to hydrate the body.

• Lubricate and cover blisters

• See a doctor if bunions occur.

• Rest, ice, stretch, and strengthen lower anterior leg muscles to help alleviate shin splints.

• Avoid using drugs in combination with aerobic exercise. The two can initiate ventricular fibrillation, which can be fatal.

• Always have certified personnel instruct you on any machine, exercise, or exercise program that you are unsure how to use or perform.

• Always ask certified personnel about any exercise or safety issues you may have.
Chapter 7

How Do I Get Started? - Program Development and Training Concepts

Once you have decided to become physically fit and improve your overall wellness, you need to decide exactly what to do. The first principal of a successful program is to choose activities that you enjoy doing. Choosing activities that you do not enjoy will surely result in failure to succeed. Very popular modes of exercise include cardiovascular training and weight training. Combining the two, along with flexibility training creates an ideal workout toning and conditioning the heart, lungs, muscles, and bones.

To improve the level of physical fitness and experience health benefits, physical activity should be moderate or vigorous and add up to at least 30 minutes a day.

- **Moderate activities include:** walking briskly (about 3 ½ miles per hour), hiking, dancing, golf (walking and carrying clubs), bicycling (less than 10 miles per hour), and weight training (general light workout).

- **Vigorous activities include:** running/jogging (5 miles per hour), bicycling (more than 10 miles per hour), swimming (freestyle laps), aerobics, walking very fast (4 ½ miles per hour), weight lifting (vigorous effort) and basketball (competitive effort).

The benefits of physical activity may include:

- Improves self-esteem and feelings of well-being
- Increases fitness level
- Helps build and maintain bones, muscles, and joints
- Improves flexibility and posture
- Helps manage weight
- Lowers risk of heart disease, colon cancer, and type 2 diabetes
- Helps control blood pressure
- Reduces feelings of depression and anxiety
At a minimum, do moderate intensity activity for 30 minutes most days if not every day of the week. About 60 minutes a day of moderate physical activity may be needed to prevent weight gain. And 60 - 90 minutes a day may be needed to maintain a recent weight loss. No matter what activity you choose, it can be done all at once, or divided into parts during the day. Even 10-minute bouts of activity count toward your total time.

In general, most people do not need to visit their doctor before starting an exercise program unless:

- Men are over 40 years and women over 50 years of age
- A chronic health problem exists: heart disease, high blood pressure, diabetes, osteoporosis, asthma, or obesity.
- High risk for heart disease is present: family history of heart disease or stroke, eating a diet high in saturated fat, trans fat and cholesterol, smoking, or having a sedentary lifestyle.

The following are guidelines to consider when developing your workout program.

**Cardio-respiratory Endurance Training**
- 3-5 days a week
- 55/65-90 % of maximum heart rate
- 20-60 minutes per workout, or bouts of 10 minutes or more.
- Use continuous rhythmic activities using large muscle groups

**Strength Training**
- 2-3 nonconsecutive days per week
- Resistance should fatigue muscle
- 8-12 repetitions of each exercise, 1 or more sets
- Use resistance exercises for all of the major muscle groups.

**Flexibility Training**
- 2-3 days per week, but 5-7 days is ideal
- Stretch to point of tension not pain
- 2-4 repetitions of each exercise, held for 10-30 seconds
- Use stretching exercises for all major joints

For further information about any training areas listed above please refer to your instructor, enroll in a physical fitness class, or search for information on your own at the library, bookstores, or internet.
Chapter 8

How am I Doing? : Evaluation and Self-Assessment

After a few weeks into your program it is time to evaluate your progress and make any changes needed to keep you on the road to success or to get you back on track. Just because you have become physically active, success is not a given. Unfortunately it is very common to get side-tracked by obstacles that hinder performance. The following are common barriers that slow down or stop the pursuit of a higher level of fitness and wellness.

- **Lack of time:** Before you begin your program you must choose a time that will be the most consistent time enabling you to work out. Whatever time that may be you need to be disciplined and devoted to your workout. Put other work aside, turn the phone off, get out of the office or work area, put social time aside, turn off the T.V., computer, or other electronic device, and get your workout done. Everything will be there when you get back!

- **Exercise facilities are:** too expensive, too far away, or not safe. Some health clubs are very expensive. Before choosing a facility be realistic with your needs and try not to fall for the "fluff" that you won't use or do not have time to use. Pretty lighting, steam saunas, dry saunas, massage therapist, or a juice bar may sound good, but if you only have 45 minutes to use the treadmill and lift weights, you are throwing good money away.

Location of your exercise facility should be as close to your residence. Timing is crucial in most of our lives. If you have to spend a great deal of your time driving to and from a workout facility, odds have it that the distance will soon become the reason to stop going.

Although we are fortunate to live in an era where walk/jog and bike trails are in abundance, some cover territory that may travel through dense woods, or unlit areas. It is highly advised that you find an exercise partner during such workouts, workout during daylight hours, or simply choose another facility that allows you to feel safe and protected.

- **Bad weather days:** If your workout consists of outdoor activities have an alternate plan ready for bad weather days. Walk/jog locations may continue at indoor fitness centers, local coliseums, gym floors, or even a local mall. Outdoor cycling can be taken indoors on upright bikes, or recumbent bikes at a local fitness facility.

- **Lack of motivation:** There are days when our "get up and go" has "gone out the door"! It is hard to feel energetic every day of the year. Make sure you are eating healthy foods, getting at least 7 hours of sleep each night, and drinking plenty of fluids. A deficit of any of those can leave the body weak and lethargic.
Another way to improve motivation is to have a workout partner. On days when you aren't motivated to work out, knowing that there is someone waiting on you may be just the thing to get you out of the door. Plus the social time together may make the workout more enjoyable.

Once barriers have been overcome the road to success has been cleared. It is then time to evaluate your physical performance. This is a good time to repeat all of the physical fitness tests that you performed in order to determine your initial health status. The battery of tests is located in Chapter Four. Proper protocol for each test is located in the majority of fitness books or online resources under fitness testing protocol. You may find a variety of testing procedures. Just keep in mind to use the same test procedure each time for measurement accuracy and consistency.

Depending on your results, changes in your program may need to be made. If you are making improvements at a pace recommended within this manual, your program is working. If you are not happy with the results or if there are no changes at all within the past 4-6 weeks, self analysis needs to take place.

Self-analysis is a process when you need to be truly honest with yourself and the effort you have put forth to try and improve your fitness and wellness levels. If you think you have eaten a healthy diet, maybe it is time to journal your daily food intake. When a person writes down everything they eat and drink within a day's time, it is sometimes a rude awakening to see how much they snacked, how late they ate at night, and how many unhealthy food choices they made.

If you have not already done so, during self-analysis you may also find it time to journal your workouts. Mark each workout on the calendar that you have to look at every day. If a person says they are working out most days of the week, once written down, they find they have missed more days than they remembered. Putting everything in writing is a constant reminder of our choices every day. It can be a very good motivational tool in order to keep you on the road to success.

On a final note, to improve your fitness and wellness level patience and determination are the keys to success. To maintain your improved level of health you must continue your program on a daily basis. This is a lifetime endeavor that is meant to be enjoyable as well as beneficial to your body. To live life to its fullest take care of your body to the best of your ability.