

MERIT BADGE SERIES



PERSONAL FITNESS



SCOUTING AMERICA
MERIT BADGE SERIES

PERSONAL FITNESS



"Enhancing our youths' competitive edge through merit badges"

Scouting  America

Requirements

Scouts should go to www.scouting.org/merit-badges/Personal-Fitness or check Scoutbook for the latest requirements.

Note: If meeting any of the requirements is against the Scout's religious convictions, the requirement does not have to be done if the Scout's parent or guardian and the proper religious advisers state in writing that to do so would be against religious convictions. The Scout's parent or guardian must also accept full responsibility for anything that might happen because of this exemption.

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Strive for a New Level of Personal Fitness

Personal fitness is the result of your efforts to have the healthiest life possible as well as having the capacity to achieve the best quality of life. Personal fitness includes many aspects of health; it is often called *wellness*. *Personal* fitness and *physical* fitness are not the same thing. Physical fitness is part of having a healthy body (see box below) and is just one part of being personally fit. If you are personally fit, you are healthy.

Regardless of your current level of personal fitness, in the 12 weeks it will take you to complete all the physical activity requirements for this merit badge, you will be in better shape, feel better about yourself, have more energy, and gain self-confidence in your overall abilities.

To reach your goal, think about how your body works in various situations and about the things that affect your quality of life.

There are many different elements that make up personal fitness. These elements involve your:

- **Mental Fitness/Mind**—mental willpower and alertness, positive sense of how you feel and act, emotional balance, and good social skills
- **Physical Fitness/Body**—physical health, good eating habits nutrition, and athletic fitness
- **Spiritual Fitness**—faith, core values, how you take care of yourself and reach out to help others

It is important to strengthen each element of your personal fitness. Each affects the total person you are. and your development and well-being.

All elements of personal fitness work together, interacting and influencing one another. If you are strong in body but weak in spirit, your overall level of personal fitness will drop. Just as a high level of fitness in one area will boost another area, a low level of fitness in one element will limit your accomplishments in the other elements.

Think of a bridge your troop lashes together with ropes. How strong would that bridge be if some of the poles or boards were rotted, or if some of the knots were loose? The bridge would be only as strong as its weakest lashing or rotted post.



A bridge is only as strong as its weakest element, just like your personal fitness.

In earning this merit badge, you will learn how to evaluate your personal fitness level and begin an exercise program for improvement.

If we replace the rotted boards and poles and tighten the lashings, the bridge will be much stronger. Think of your personal fitness in the same way. By replacing bad habits with good ones and reinforcing our overall health in simple but surefire ways, your quality of life can dramatically improve. This puts you on better footing in every aspect of your life.

Rate Your Own Personal Fitness

You will need to rate yourself as far as your personal fitness. Objectively rating your social, mental, emotional, and spiritual status is not easy. You might never have thought about your level of personal fitness. You may go from day to day taking part in activities without appreciating the benefits of a healthy body. Do not take personal fitness for granted!

Having a healthy level of fitness means that your body is in such good condition that you feel energetic and look healthy. It also means you have the confidence, energy, and endurance to enjoy yourself. And this is the very best time, during your preteen and teen years, to set a lifestyle pattern that will help you stay fit throughout your life. That is why, in earning this merit badge, you will learn to evaluate your physical fitness level and begin an exercise program that you can use for the rest of your life.



Regular exercise is necessary for a high level of physical fitness.

For example, your personal fitness program must be well-balanced. If you eat properly but do not exercise regularly, you will not be able to perform well in physical activities. If you exercise regularly but do not eat well, you might find you don't have much energy, are much more easily tired out, and get sick more often. If you work out and eat well, you will probably be physically healthy. But if you don't have many friends, then you are not socially healthy. So when life gets stressful, you might not have a social support system to help you handle the stress. If you are highly active at Scout camp but do not prepare a nourishing meal or sleep enough hours that night, you will probably be dragging behind on the next day's hike.

If you become as fit as you can be, your confidence will grow because you will know you are making the best possible use of your physical characteristics and makeup. Fill your days with study, sports, and family, troop, or other social activities. Do not waste away your days with lots of idle time like watching TV.



Playing sports with friends will boost your level of personal fitness.

If you exercise, eat balanced meals, and get enough sleep, you will discover that you have boundless energy to carry you through day-to-day living, as well as any emergencies that arise.

Being personally fit can also help you fulfill the responsibilities of being a Scout. A Scout is cheerful, strong, mentally awake, helpful, and prepared, and does a Good Turn daily. Think about it. It is hard to be prepared for any situation without an excellent level of personal fitness. And having a high level of social fitness will enable you to be kind, courteous, and helpful.

Signs of Poor Personal Fitness

1. Obesity, getting “winded” or short of breath when doing something active, or struggling to lift a slightly heavy object (low physical fitness)
2. Not having many friends (low social fitness)
3. Often feeling pressured, sad, anxious, or stressed; anxiety, (low mental fitness)
4. Not faithful in your religious duties, struggling to respect the religious convictions of others (low spiritual fitness)

Your Personal Fitness Test

To begin an evaluation of your personal fitness, ask yourself these questions:

1. Are you free from all curable diseases? Are you living in such a way that your risk of preventable diseases is minimized?
2. Are you immunized and vaccinated according to the advice of your health-care provider?
3. Do you understand the meaning of a nutritious diet and know why it is important for you? Does your diet include foods from all food groups? Are you careful to curb your intake of high-fat and high-calorie foods?
4. Are your body weight and composition what you would like them to be? Do you know how to modify them safely through exercise, diet, and lifestyle?
5. Do you carry out daily activities without noticeable effort? Do you have extra energy for other activities?
6. Are you free from alcohol, tobacco, drugs, and other practices that could be harmful to your health?
7. Do you participate in a regular exercise program or recreational activities?
8. Do you sleep well at night and wake up feeling ready to start the new day?
9. Are you actively involved in the religious organization of your choice, and do you take part in its youth activities?
10. Do you spend quality time with your family and friends in social and recreational activities?
11. Do you support family activities and efforts to maintain a good home life?



Maintaining Good Health

The first step in starting any personal fitness program is to get a physical examination from your doctor. And to maintain your good health, you need to learn how to avoid diseases and other illness.

The Physical Exam

Before you fulfill the requirements for the Personal Fitness merit badge, have your health-care provider give you a physical exam. Be sure to use the Annual Health and Medical Record form. Use the form provided by your counselor, or go to www.scouting.org for the online version, or request the form from your local council service center. Your family physician probably has most of your personal information and medical history on file.

When you meet with your doctor, you will fill out a personal and medical questionnaire. It will ask about any diseases that are common in your family, your personal medical history, any allergic reactions to medicine, whether you are taking any medicine, and some personal information.

The physical examination will probably include

- Measuring your heart rate, blood pressure, height, and weight
- Checking heart and lung sounds
- Examining your ears, mouth, and throat
- Conducting an eye exam
- Testing your reflexes

Your dental health also affects your physical health, so a checkup from your dentist is also important.



Combine basic daily eye care with annual screenings by your health-care practitioner. Be sure to wear sunglasses with lenses that filter ultraviolet (UV) rays; use adequate lighting to read; wear protective eye gear for outdoor activities and sports; and see a physician if you have persistent eye irritations or notice changes in your vision.

The health-care professional should also ask questions and record observations about your psychosocial (mental and social) traits, nutritional habits, physical activity, and family circumstances. The physician will keep a permanent record of your health history, growth patterns, immunizations, and other data.

During a physical exam, your health-care provider may identify symptoms or conditions that need treatment or correction. It is wise to have regular physical exams so that your physician can monitor and keep a record of your health. The records are useful later in life when it is necessary to review your medical history.

Injuries to the ear can occur through improper cleaning, noise, illness, and inadequate protection while playing sports. Delicately clean only the outer ear with a washcloth or cotton swab, and protect your ears. Lower the volume on listening devices; wear earplugs at concerts and similar venues; and wear appropriate protective headgear for outdoor activities. See a physician if you have trouble hearing or experience an injury to the ear.

“Average” and “Normal” Growth Rates

The main factors affecting growth are never the same for any two people.

Your body type and rate of growth and development will be unique to you. In an average high school freshman class, for example, the height of the boys can range from 4 feet 8 inches to 6 feet tall. While the average height might be about 5 feet 4 inches, you probably will not find many “average” students who are precisely 5 feet 4 inches. Obviously, what is “normal” involves a wider range.

There is no reason for concern if you check charts and graphs and find results that do not match your measurements. These charts do not take into account your own special heredity and growth pattern. Find out from your health-care provider what your position on the chart means.

Real growth problems are rare. A person might be extraordinarily slow to mature or do so at an early age. If you regularly consult your doctor, there is probably no need to become concerned about growth problems. Your doctor will gladly answer any questions you have about your growth and maturity.

The Dental Exam and Daily Care of Your Teeth

For requirement 1b, you need to have a dental exam and get a statement from your dentist stating that your teeth have been checked and cared for. You also need to be able to tell your counselor how you properly care for your teeth on a daily basis.



A dentist can explain how to properly care for your teeth.

Your dentist can tell if you have cavities or plaque buildup on your teeth and if your gums look healthy. Poor dental care can harm your health and your appearance. Proper daily care and regular dental check-ups can help keep your teeth in good condition.

Although there is probably no single reason why teeth decay, you can do a few things to help protect your teeth. For example, a nutritious diet helps keep teeth in good condition. Usually, a diet that is good for general

health is good for dental health. Do not fill up on pastries and sweets after or between meals. Sugary foods stick to teeth and cause them to decay over time.

Also, make it a habit to brush your teeth immediately after eating. If you cannot brush, rinse your mouth to get rid of food particles. When particles remain in your mouth, they form acids that attack your teeth and eventually form cavities. Toothpaste is helpful in cleaning, but thorough, proper brushing of all surfaces is the most important thing in preventing plaque buildup and fighting gum disease.

Visit your dentist every six months and follow his or her advice. Keeping your teeth clean and avoiding gum disease can ensure an attractive smile and greatly enhance your general health.



How to Brush

Brush your teeth away from the gums instead of toward them. The brush should have a small head with firm but not hard bristles and a flat brushing surface. Most dentists also recommend flossing at least once a day. Flossing removes food particles and plaque between teeth and in the gums.

If the water you drink contains fluoride, your teeth will be more resistant to cavities. If it does not, ask your dentist whether you should use a dietary supplement. You can also use a toothpaste that contains fluoride. Studies have shown that using toothpaste with fluoride helps prevent tooth decay.

Your dentist may also discuss your *occlusion*, or bite. If your teeth do not close on each other properly, they may wear down quickly and you may develop other dental troubles. Your dentist will tell you if your teeth need to be straightened.

Because of recent advances in dental care, gum disease now causes more tooth loss than actual tooth decay. It is also now believed that bacteria that cause gum disease can harm the tissue and muscles of the heart, so flossing and other measures to help prevent gum disease may also protect your cardiovascular health. Talk to your dental professional about how to prevent gum disease.



Scouts can still care for their teeth at a campsite.

Disease Prevention

Your body is an amazingly complex creation. Learn to listen to your body so you can recognize its warning signs. Most illnesses have recognizable symptoms. When your body shows symptoms, it generally means something is wrong. Heed the warning signs. Consult your health care provider. Your doctor depends on your accurate description of what you are feeling to diagnose the disease or illness so proper treatment can be given.

Most common diseases are entirely preventable, so regular visits to your health care provider are important. He or she can advise you in preventive habits. Your daily habits might expose

you to people with a *communicable* disease or make you more susceptible to *non-communicable* diseases. Communicable diseases are contagious; you typically catch them from someone else. Examples are colds, the flu, and COVID-19. Non-communicable diseases are not contagious, and you can't get them from someone else. The most common ones today are usually the result of poor lifestyle choices. For example, not enough physical activity or eating too much junk food can lead to having an unhealthy weight, high blood pressure or heart disease.

A Scout Is Clean

Showering daily and washing your hands with soap and warm water several times a day can help prevent you from picking up or spreading airborne diseases such as flu and colds. It is also important to wash your hands after every time you go to the bathroom.

Never drink from someone else's cup. Cover your mouth when you sneeze or cough, and use tissues. Use clean drinking and eating utensils. Being around people who are sick may expose you to communicable viruses or bacteria. If someone is sick, keep your distance.

Poor lifestyle choices can also make you more prone to some communicable diseases. For example, not washing your hands frequently might increase your chances of catching a cold or the flu from someone else.

Primary prevention involves developing good health habits and either changing bad ones or preventing bad habits from forming. This means taking measures to combat risk factors for illness before an illness actually develops. (See "Risk Factors" later in this chapter.) For example, communicable diseases like a cold or the flu are often acquired from persons who are already sick. One way you can avoid catching a cold is by staying away from someone who has a cold.

Many non-communicable health problems, like obesity, are acquired due to poor lifestyle habits. In this case, you can reduce your risk of becoming unhealthily overweight by eating a healthy diet and staying physically active.

Primary prevention is a good idea but is not always easy to do. People often have little immediate reason to watch out for their health. So they allow themselves to form bad habits. When good habits develop in a person's youth, most people keep those habits as adults and stay healthy. That is why this merit badge is focused on helping you develop these good habits.

The damage that bad habits like smoking, drinking alcohol, and using drugs cause to all organs of the body may not show up for many years.

When you are young, it is sometimes difficult to understand the habits you develop now might influence whether you develop health problems later on. Think of your body as a new car. A new car will run well even if it is not properly maintained. But, sooner or later, it will break down and be expensive to fix—if it can be fixed. With your body, you want it to run smoothly for many decades. Now is the time to start taking care of yourself and making sure your body, mind, and spirit get what is needed not just to survive—but to thrive.

Unfortunately, even good habits and youth cannot prevent all diseases. A person with a healthy lifestyle can still be struck with a disease or die unexpectedly. Smokers get lung cancer, but nonsmokers can get lung cancer, too. Symptoms might not always be obvious, making the disease hard to detect. In other cases, symptoms are simply ignored. Now is the best time for you to develop the good lifestyle habits that will help you have excellent overall health for years to come.

Immunizations

Having immunization shots during childhood minimizes your risk of getting many dangerous diseases, such as the following.

- **Diphtheria**, an infectious disease affecting the membranes of the nose and throat, results in fever, pain, and respiratory obstructions. The toxins (poisons) that cause diphtheria may also cause myocarditis (inflammation of the heart).
- **Pertussis** is the medical name for whooping cough, an infectious disease that causes severe and rapid coughing.
- **Tetanus** is an often-fatal disease marked by general muscular spasms and vocal cord spasms, seizures, respiratory spasms, and paralysis. The toxin that causes the disease enters the body through wounds. For example, if you step on a rusty nail and drive it into your foot, you could get tetanus if you do not get immunized for this disease.
- **Meningitis** is an inflammation of the membranes surrounding the brain and spinal cord.
- **Polio** is a viral disease that may result in muscle atrophy, paralysis, and/or permanent deformity.

The ages at which Scouts should receive vaccines and boosters are shown in the table. Because of the risk of being infected with the tetanus toxin through open wounds, the tetanus shot is given every 10 years, even through adulthood.



Immunization shots are important for the prevention of some diseases.

Recommended Immunizations for Scout-age Youth in the U.S.

<u>Age</u>	<u>Vaccine</u>
10 years	Flu
11-12 years	Flu, Tdap (tetanus, diphtheria, pertussis), MenACWY (meningococcal conjugate), human papillomavirus
13-15 years	Flu
16-18 years	Flu, MenACWY booster

For all ages, if previous vaccines were missed, then catch-up vaccinations can be given for all these diseases and for Hepatitis A and B, polio, MMR (measles, mumps, rubella) and chickenpox.

Source: Centers for Disease Control and Prevention, Advisory Committee on Immunization Practices

Other Preventable Diseases

The disease *COVID-19* (short for “*coronavirus disease 2019*”) has affected millions of people worldwide. COVID-19 affects people in different ways. Some do not get very sick, or they think they “only” have the flu. Others get a fever, cough, or have difficulty taking deep breaths. And some people become so sick they must be hospitalized because of life-threatening complications. The disease is thought to spread mainly through close contact from person to person. When an infected person breathes out droplets and very small particles, these can be breathed in by other people or land on their eyes, nose, or mouth, or contaminate surfaces that other people touch.

The medical community has made progress in discovering drugs to help treat COVID-19. But the best way to treat this disease is to prevent it—which is why getting vaccinated, wearing a mask when appropriate, staying 6 feet apart from others, and washing your hands often are so important.

Rheumatic fever is another disease that can be prevented with better understanding of good health practices. Rheumatic fever starts with a simple throat infection that leads to strep throat. Left untreated, the disease may affect the joints and even the heart. Symptoms include sore throat, fever, fatigue, and pale complexion.

Not many people with strep throat get rheumatic fever, but if a sore throat lasts for several days, consult your doctor. A simple throat culture can diagnose strep throat and rheumatic fever can be prevented. Rheumatic fever that progresses to the point of heart damage becomes a permanent disease.

Risk Factors

Some diseases, like COVID-19 and the common cold, are acquired from others. But in the case of cancer and heart disease, years of research and observation have shown that lifestyle behaviors increase the risk of getting the diseases. These behaviors are called *risk factors*.

Some risk factors such as age or family history cannot be changed. Other risk factors such as dietary habits, too much sun exposure, lack of physical activity, and smoking can be modified.

Modifiable risk factors for heart disease that Scout-age youth might have::

- High blood pressure (hypertension)
- High blood cholesterol
- Lack of exercise
- Not eating healthy foods
- Excessive body weight
- High blood glucose (diabetes)
- Tobacco use

Except for when the COVID-19 pandemic was at its worst, the single greatest cause of death and disabilities in the United States has been heart (coronary) disease. It is responsible for almost 400,000 deaths each year. On average, one American suffers a heart attack every 40 seconds. Many people can reduce this risk through lifestyle changes. Other than not using tobacco, physical activity and healthy eating are the most important lifestyle changes a person can make.

Exercise alone will not prevent or cure heart disease, but it is one effective way to reduce the risk of cardiovascular (heart and blood vessel) disease. Inactive people have twice the risk of heart attack compared with those who regularly exercise. Any kind of physical activity will work, but the best for heart health is “aerobic” exercise.



Exercise helps reduce the risk of heart disease.

Strength exercises (weight, resistance training) help build muscles and tone your body but do little to promote cardiovascular fitness.

“Aerobic” means the body uses oxygen to produce the energy that is needed for the activity. Running, swimming, and biking are good examples of aerobic exercises that get your heart rate up and increase blood flow to muscles. However, anything that gets your heart rate up and your blood flowing is good cardiovascular exercise. Think about it—mowing the yard could be good exercise.

Healthy eating is important, too. Besides helping to reduce your risk for high blood pressure, high blood cholesterol, and diabetes, healthy eating can reduce your risk for having an unhealthy body weight (or being obese).

Obesity greatly increases the likelihood of developing health concerns, such as low self-esteem, depression, high blood pressure, high cholesterol levels, and diabetes. But being physically active and eating healthfully, even if your weight does not change, can go a long way towards helping you to be healthy as a Scout and, in the future, as an adult!

Let’s review other risk factors that can affect your physical fitness.

TOBACCO: A RISK FACTOR YOU CAN CONTROL

Although hanging out on the couch and eating fast food are significant risk factors, smoking triples your risk of developing cardiovascular disease. The good news is that recent studies have shown the body has an amazing ability to repair itself once a person stops smoking. Within two weeks of stopping, your body will respond by becoming healthier. Within a few years, your lung capacity (that is, your ability to breathe easy) will nearly double.

The bad news is that many smokers often find it extremely difficult to kick the habit, because tobacco contains nicotine, a highly addictive drug. Many smokers who want to break their addiction must try repeatedly. Before they can stop smoking for good, they suffer the pains of withdrawal each time they try to quit.

Not only are smokers at higher risk of developing heart disease, they greatly increase their chances of getting cancer. Cigarette smoke contains many cancer-causing chemi-



Try cycling with friends instead of hanging out on the couch and watching TV. Your heart will thank you.

cals, including arsenic (used in pesticides and weed killers), benzene (a toxic solvent), formaldehyde (used to embalm corpses), and polonium 210 (a highly radioactive element).

The blood carries the poisons from smoking to all parts of the body, damaging internal organs from the brain to the bladder. Scientists now know that smoking causes cancers of the mouth, the larynx (voice box), the lungs, and the kidneys. It can also cause a type of leukemia—a cancer of the blood. Smoking not only causes heart disease, it also raises the risk for stroke and damages the body's ability to fight infection. Smokers are at high risk of dying from any number of tobacco-related diseases.

Vaping is becoming increasingly common. The substances contained in vaping chemicals vary, but the most common

Cancer—Seven Danger Signs

If you recognize any of these seven danger signs, seek further testing for cancer. Awareness of these seven signs will increase the chances of diagnosing cancer at an early stage and therefore increase your chance of survival.

1. Change in bowel or bladder habits could be a sign of colorectal cancer.
2. A sore that does not heal on the skin or in the mouth could be a malignancy and should be checked by a doctor.
3. Unusual bleeding or discharge from the rectum or bladder could mean colorectal, prostate, or bladder cancer.
4. Thickening of breast tissue or a new lump in the breast is a warning sign of breast cancer. A lump in the testes could mean testicular cancer.
5. Indigestion or trouble swallowing could be cancer of the mouth, throat, esophagus, or stomach.
6. Obvious changes to moles or warts could mean skin cancer.
7. Nagging cough or hoarseness that persists for four to six weeks could be a sign of lung or throat cancer.

Closely watch for these signs, which are your body's way of alerting you to potential problems. If you experience any of them, schedule an appointment with your physician immediately.

Myth: “Smokeless tobacco is safe.”

Fact: Smokeless tobacco—snuff

or chewing

tobacco—causes

health problems

ranging from gum

disease to mouth

cancer. No

tobacco is safe.

include nicotine, marijuana or “flavorings” to make the vape smoke taste better. It’s hard to know what’s being vaped since labeling is inconsistent. But e-cigarettes are not a safe alternative to tobacco. They contain chemicals like nicotine, and metals like lead and cadmium. Like real tobacco products, they increase your risk of heart disease.

OTHER HARMFUL SUBSTANCES

Besides eating right, exercising regularly, and not smoking, you can help to protect your health by avoiding alcohol and drugs. Drinking and taking drugs “for fun” or recreationally are high-risk behaviors, both for the damage they do to your body and for the harm they can cause to others.

Alcohol is a depressant. It interferes with reflexes and coordination. It slows reaction times and impairs vision, hearing, and judgment. When a young person drinks, he may make risky or poor decisions that hurt himself or others. Alcohol’s effects on the body and mind make driving extremely dangerous for anyone who has been drinking even small amounts. Traffic crashes are the leading cause of death for 15- to 20-year-olds, and alcohol is a factor in a large percentage of teen driver fatalities.

Marijuana increases your risk for heart disease and some cancers. It also impairs memory and learning.

Opioids are leading to an epidemic of overdose deaths. These include illegal drugs like heroin, but also legal drugs that were initially prescribed by physicians to relieve pain, like

Teens who drink may do poorly in school and suffer long-term emotional and physical damage. High school students who use alcohol are five times more likely than others to drop out of school. Alcohol use among young people has been linked to depression and suicide, as well as a greater risk for developing diseases such as cirrhosis of the liver, pancreatitis, stroke, and some forms of cancer. Long-term effects of alcohol use can include damage to brain and nerve function, memory loss, loss of appetite, malnutrition, weakening of the heart muscle, and liver failure leading to death.

methadone, oxycodone, and hydrocodone. Opioids, whether legal or illegal, are highly addictive and potentially deadly.

Amphetamines are stimulants. Commonly called “uppers,” these highly addictive drugs create false feelings of power and assertiveness. They do not give a user extra physical or mental energy—they impair judgment and distort the user’s view of reality. Amphetamines suppress appetite and may cause extreme, life-threatening weight loss. Other side effects include nerve damage, uncontrollable and abnormal movements of the face and jaw muscles, convulsions, hallucinations, and mental disorders such as paranoia and delusions similar to schizophrenia. Amphetamines can damage blood vessels. Users may die from ruptured blood vessels in the brain or from heart attacks.

Other drugs—like cocaine and crack, inhalants, and LSD—also have powerful effects on the body and the mind. They can produce temporary feelings of pleasure or energy, but they can also cause nightmares and severe mental disturbances. Overdoses are common and can result in serious illness, disability, or death.

Myth: “Smoking occasionally is safe.”

Fact: Smoking “casually” or “occasionally” is the same as taking poison occasionally. If you wouldn’t drink embalming fluid now and then, why would you smoke, even once in a while?

Stay Off Steroids

Steroids mimic the effects of the natural male hormone testosterone. They are abused to artificially increase muscle mass at a high cost to the user’s health.

Steroids can cause severe mood swings, from deep depression to extreme irritability. *‘Roid rage* is a term for the explosive, out-of-control aggressiveness associated with steroid use.



Social, Mental, and Spiritual Fitness

Important parts of personal fitness that are often overlooked are social, mental, and spiritual fitness. These are just as important to your overall health as your physical fitness. Living the Scout Oath and Scout Law, the Scout motto, and the Scout slogan helps every Scout live a healthy life. What would your social interaction be if you were not trustworthy, loyal, helpful, friendly, courteous, kind, obedient, cheerful, thrifty, brave, clean, and reverent?

In obeying the Scout Law, you should try to show those personal qualities every day, in all situations, and with everyone you meet. The Scout who is recognized as a Scout by his actions rather than by a uniform has truly lived the Scout Law.

You know now that living the Scout Law affects your social fitness. To understand why, think what each point of the Scout Law means. Review the Scout Oath and Scout Law in your *Boy Scout Handbook* or at the back of this pamphlet.

Social Fitness

There are many things to consider in developing good social skills. Making friends is easy if you extend yourself in an open and engaging way. Remember that everyone is different but almost everyone has interesting and unique qualities.

Think about the characteristics you value in a good friend. Your friends value some of the same characteristics in you. Good friends share feelings and emotions with trust and confidence. Everyone needs someone to talk to about his or her feelings, emotions, and problems, as well as someone to have fun with. Friends help one another through bad and good times and are able to speak honestly to one another.

By taking the Scout Oath, you promise to obey the Scout Law and to help others at all times.





Social fitness means knowing how to be a good friend.

Good communication requires two people—a talker and a listener. These are not skills that come naturally; they need to be learned. When you express your feelings and emotions, it is important to express them appropriately. When you listen, do so with sincerity and concern for your friend's feelings and problems. By sharing your own feelings and emotions, you allow others to become involved with your life. And by being a good listener, you can help others to confront problems, emotions, and struggles in their lives.

Being a good listener is just part of being a good friend. Accepting others is important to your social health as well as to theirs. Everyone, including you, has the need to be accepted. You do not need to approve of a person's behavior, but you can accept him or her as an individual. Friends do not judge each other but accept each other unconditionally.

Peer Pressure

Dealing with peer pressure is tough. You will not always be fortunate enough to have acquaintances who are positive influences in your life and share the same values and standards that you have. You can accept these people as individuals without doing what they do. You cannot stop peer pressure, but do not allow people to tease you or push you to join activities that make you uncomfortable or that are unlawful.

For example, your friends might try to get you to go swimming in a dangerous rock quarry where swimming is not allowed. You could do one of two things. You could walk away

from the situation or offer another activity that is more appropriate, such as going to the public swimming pool. By walking away, you show your unwillingness to participate, but by offering an alternative, you are providing positive leadership. If your friends do not accept your alternative, you can still walk away. If they accept your suggestion, chances are that everyone will have just as much fun at the pool and will be much safer.

Always try to help others raise their own standards and do the right thing. Do not stand back and watch your friends make the wrong decisions. You may feel as if you are all alone at times when facing peer pressure. But rest assured that staying true to your values as a Scout will make a long-lasting impression on others.

Some young people suffer from low self-esteem, low self-confidence, and insecurity. Some kids are too strict with themselves, expecting perfection. They may try to be like someone else because that person seems to attract friends. This may lead to behavior that removes them from achieving their potential.

You do not need to choose drugs, smoking, or harmful behavior. If you know you are taking good care of your body, accepting responsibility, taking pride in your accomplishments, living the Scout Oath and Scout Law, and participating in healthy activities with friends and family, then you probably feel good about yourself and what you are doing. Although peer acceptance is important, your self-esteem, self-confidence, and sense of identity ultimately come from within.

If school, peer pressure, personal relationships, constantly being on the go, or any other kind of circumstance has you feeling overwhelmed, you are not alone. A little stress is OK; it might make you work harder for good grades. A lot of stress is not OK. Take time to manage your stress, and don't sweat the small stuff. Relax. Watch a funny movie, play with your pet, read for pleasure. Make sure you get enough rest and eat the right foods. Don't try to do too much, and don't try to be perfect. *Take better care of yourself*, and you will start to think more clearly and have a positive outlook.

It is important for good friends to spend time with each other; it helps strengthen friendships by building understanding, trust, and respect.

Positive activities with friends help maintain good emotional fitness.

Know Your Priorities



For your own social well-being, it is helpful to list your priorities. Your priorities will be different from someone else's. Your list might include yourself, your family, religion, friends, education, recreation, health, and work. *You* should be the first priority. You cannot help others, do Good Turns daily, or be a friend if you neglect your own body, mind, and spiritual needs.

Mental Fitness

Your emotional well-being is closely tied to the other components of personal fitness. Your activities, exercise, diet, sleep, family life, religious involvement, and physical health all affect your emotional and mental fitness. Everyone worries a little. It is normal to have some temporary anxiety or depression while overcoming major transitions or obstacles in life. But if anxiety and worry are excessive and interfere with school, family, friendships, and a healthy social life, you should seek professional help.

Many emotional problems can be prevented in the home. A good family life is essential to a healthy mind and body. Not every family is the same. Some Scouts have parents or guardians who are divorced or deceased. These youth can have a happy home life with a single parent or guardian. As a family member, your contributions are important to your family's well-being. Support family efforts for a peaceful and meaningful home life. Just as your parents or guardians help you overcome your problems, you can help overcome some family problems.

Help plan family outings and activities. Spend quality time with your brothers, sisters, and parents or guardians. "Quality time" means sharing through communication and joint activity. If you talk about common interests, work together on a family project, plan for a special occasion, share a pleasant or meaningful experience, or play together, you are getting and giving healthy benefits through your family activity. Your family can be your most important possession.



Positive activities with friends help maintain good mental fitness.

Earlier you learned that being a good communicator means being able to express your emotions and feelings to a good friend. This friend might be your parent or guardian, your Scoutmaster, a brother or sister, another Scout, or your religious leader.

Of course, you must be aware of your feelings and emotions to be able to express them. Examining your feelings is the first step. For example, if you have ever been in a situation like the one at the rock quarry described previously, how did you feel? Be honest. Were you disappointed in your friends? Ashamed? Angry? Your feelings are your own and should be expressed as such. When you talk to your friend, say, “I felt angry when they asked me to go with them. They know we should not go there.” Do not say, “They made me angry.” It is healthy to admit your feelings, but remember that they are *your* feelings. No one made you feel that way.

How To Tell If Someone Is Depressed

A person suffering from depression might:

- Be sad or irritable
- Lose interest in things they used to enjoy
- Gain or lose weight unintentionally
- Sleep more or less than usual
- Change their usual activity level
- Be fatigued
- Feel worthless or guilty
- Have difficulty concentrating or be indecisive
- Frequently think about death or have planned or attempted suicide.

A person suffering from depression needs prompt and professional help. **Depression is treatable and should not be ignored.**



Be a friend to your family. Your contributions are important to your family's well-being.

Professional
counselors can
help people
facing difficult
emotional issues.

Spiritual Fitness

Scouting America is an integral part of nearly every place of worship. This is because every Scout has a duty to God. A troop that is chartered to a religious group provides Scouts the opportunity to recognize and fulfill their duty. Active involvement in your religious group is essential to your being a good Scout. You are expected to recognize your duty to God, and the religious principles you learn will enable you to live by the Scout Law.

Religions around the world use Scouting as a way to provide meaningful activities for young men. Most of them have special recognitions for the young people who recognize and fulfill their duty to God. Some of these emblems are the Ad Altare Dei, Alpha Omega, God and Country, Living Faith, Ner Tamid, and On My Honor. Check with your religious leaders to find out the requirements for receiving the emblem affiliated with your religion. Religious emblems are not required for advancement but are honorable to wear on your uniform and demonstrate your dedication to your religion and to Scouting.



Your religious practices will help you to live by the Scout Law.



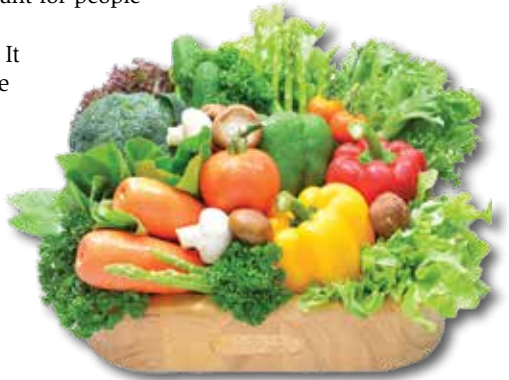
Healthy Eating: Good Nutrition Made Easy

Healthy eating plays an important role in all components of personal fitness. If your body does not get the nutrients it needs, it will not function at its best. Eating too many unhealthy foods might result in lack of energy, slow healing of injuries, dehydration, an increased risk for some cancers, and an unhealthy increase or loss of body fat. The word “diet” does not always mean cutting back on calories to lose weight. Your diet is what you eat every day, whether you are trying to lose, maintain, or gain weight.

Healthy eating is an important part of treating some diseases and preventing others. Failure to eat properly may be fatal for a person with diabetes. Good nutrition is especially important for people who either have heart disease or are trying to reduce their risk for it. People with mild high blood pressure can lower it by eating less salt and having a desirable body weight. People can often lower their blood cholesterol levels by increasing exercise and reducing the amount of fat and cholesterol they consume. Eating healthfully is especially important for people who are trying to lose weight.

What does healthy eating mean? It means making good choices about the foods you eat and the beverages you drink. The goals are to eat enough calories to keep you at a healthy weight, get the nutrients you need so your body can function well, and eat foods that do not increase your risk for diseases like heart disease, high blood pressure and obesity. Eating less fat and more fiber might also help prevent some cancers.

Variety is not only the spice of life, it is important to your overall health. A balanced diet includes all the food groups.





Nutrients

The key to good nutrition is to eat a varied diet.

A balanced diet includes all the food groups.

A healthy diet provides six basic nutrients: protein, fat, carbohydrates, water, vitamins, and minerals. Eating a variety of foods will provide your body with all the nutrients needed for good health.

Proteins are essential to every cell in the body. They are needed for the structure, function, and regulation of your body's tissues and organs, such as muscles. Proteins are made up of smaller units called amino acids. It is important to eat a variety of foods high in protein to be sure you get all the amino acids your body needs.

Fats are also essential to health. Your body can make some fats, which is why people can gain weight if they eat more calories than their body needs. But some fats are needed in the food you eat. They act as messengers to help proteins do their job, help control growth, and help the defense system of your body (immune function) work. Too much of some kinds of fats in your diet is unhealthy since they can increase your risk of diseases like heart disease and obesity. Good sources of healthy fat include olive oil, canola, soy, corn, sunflower, peanut, and other vegetable oils, as well as fatty fish such as salmon.

Carbohydrates (sugars and starches) are the main source of energy for your muscles and nervous system, especially during exercise. Simple carbohydrates—sugars—add flavor to foods and yield high energy in the body. Foods high in sugar often have many calories but few nutrients. Nutritionists sometimes call them “empty calorie” foods. Avoid these types of foods, or eat them only in moderation. Complex carbohydrates, such as whole-grain products, are digested more slowly, provide energy over a longer time, and are less harmful to your teeth.

Water is essential to life. Your body is about 60 percent water. Water helps to regulate body temperature and aids in digestion. Water is also important in just about every chemical reaction in your body. Daily water losses need to be replaced continually. Eight glasses of water a day is recommended.

Vitamins are the most frequently talked about nutrient because most people believe they are important and good for them. Unfortunately, people also have the notion that “if a little is good, then more is better.”

Taking a daily multivitamin supplement will help ensure that your body gets all the nutrients it needs.

Minerals such as calcium, iron, iodine, potassium, and magnesium have specific purposes in the body. Minerals are excreted after they are used. For a balanced diet, minerals must be continually replaced through proper diet and dietary supplements.

Drink water with meals and snacks rather than drinking soda pop.



Food Groups

You get all these nutrients from the foods you eat. Foods are classified into basic food groups: grains, fruits, vegetables, proteins, and dairy. Try to eat a wide variety of foods but choose ones that are low in fats or do not have a lot of sugar added to them.



Foods made from whole grains are healthier than foods made from refined grains.

Grains are foods like rice, oatmeal, popcorn, bread, cereal, and pasta. They are a major source of carbohydrates. They can be whole-grain, containing the entire kernel of the grain, such as whole-wheat bread, brown rice, or oatmeal. If part of the kernel is removed, they are called refined grains—white breads, cookies and most crackers and pastas. Whole-grain foods are healthier; try to eat more of these.

The **vegetable and fruit groups** provide many vitamins, minerals, and dietary fiber. They include fresh, frozen, canned, and dried forms. They can be cooked, raw, or in juices. Vegetables differ in their combination of nutrients, so it is important to eat a variety of them. There are five subgroups of vegetables—dark green, red and orange, legumes (beans and peas), starchy (like potatoes), and others. The fruit group includes whole fruits and 100% fruit juice. Fruit juices are often higher in calories and lack dietary fiber, so it's better to eat whole fruits. Canned fruits are fine, too, but can also be high in extra sugar. Most people need to increase their intake of fruits and vegetables. Try to eat at least three different colors

You should have vegetables and fruits two to three times a day, or at nearly every meal.

of fruits and vegetables each day, like an orange (orange), broccoli (dark green), and cauliflower (white).

The **protein group** includes foods from animals and some plants. Examples: meat, fish, poultry and eggs, nuts, and seeds. They are important sources of protein, vitamins and some minerals. Like the other food groups, it is important to eat a variety of proteins since they all differ in the nutrients they provide.

The **dairy group** includes low-fat milk, cheese, low-fat cottage cheese, yogurt, puddings, creamed soups, and ice cream. Dairy products provide calcium for the body and are often fortified with vitamins A and D. While dairy products also provide fat in your diet, skim milk and low-fat cheese provide healthy alternatives. If you enjoy dairy foods, which provide bone-building calcium, and you need vitamin D, stick with no-fat or low-fat products. Calcium supplements are another way to get your daily calcium if your body cannot handle milk products.

Foods that contain a lot of empty calories should be eaten sparingly. Desserts, snack foods, and drinks like sports/energy drinks and soda pop often include unhealthy fats and high levels of sugar. They cause fast increases in blood sugar that can lead to weight gain, diabetes, heart disease, and other health disorders. Whole-grain carbohydrates cause slower, steadier increases in blood sugar that do not overwhelm your body.

Foods in the same category provide similar nutrients.

Remember: Eat fats and sweets sparingly because they often provide little or no nutritional value and are high in calories.

Healthy Eating Goals

The federal government created MyPlate to help Americans learn better eating habits. Each food group is represented by a space on the plate, so you can figure out what you should eat and how much you should consume each day. For this merit badge, you can choose any healthy eating goals you want to work on to help you meet your specific needs and interests.

1. **Focus on whole fruit.** Aim to choose whole fruits over fruit juice for extra fiber. Fruits may be fresh, canned, frozen, or dried and may be whole, cut-up, or pureed.
2. **Vary your veggies.** Select a variety of colorful vegetables to get the vitamins, minerals, and fiber your body needs to be healthy. This includes fresh, frozen, or canned varieties.
3. **Vary your protein routine.** Meat, poultry, seafood, beans and peas, eggs, processed soy products, nuts, and seeds are all proteins. Select leaner cuts of beef and pork and eat turkey and chicken without skin.
4. **Make more of your grains whole.** Read the ingredients list and choose products that list a whole-grain ingredient first, such as whole wheat, brown rice, or oatmeal.
5. **Move to fat-free or low-fat dairy.** Dairy products, as well as soy milks, offer calcium, vitamin D, and many other nutrients your body needs.
6. **Drink water instead of sugary drinks.** Regular soda and other drinks such as fruit drinks and energy drinks can have added sugars. Instead, reach for a tall glass of water.
7. **Select foods with less sodium.** Read the nutrition facts label to compare sodium in packaged foods like soup, canned vegetables, and frozen meals; choose the foods with lower amounts.
8. **Limit added sugars.** Added sugars, syrups, and sweeteners increase calories without contributing essential nutrients.
9. **Replace saturated fats with unsaturated.** Most saturated fats come from animal products. Choose lower-fat dairy and lean options for meat and poultry—like lean beef and grilled chicken breast without the skin.

The sectioned colors on the plate stand for the following food groups:

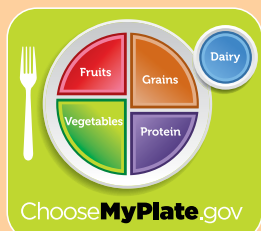
Orange—grains

Green—vegetables

Red—fruits

Blue—milk and dairy products

Purple—meat, beans, fish, and nuts



Energy and Calories

The foods you eat provide energy for your body when they are broken down in your stomach or intestinal tract, absorbed into the bloodstream, and stored in the cells of your body. When your body demands energy, stored supplies of carbohydrates or fats are broken down and transported to the cells that require energy. In the cells, carbohydrates (in the form of sugar) and fats are used in chemical processes that release energy and cause muscles to contract. Energy also is used to carry on other bodily functions, including those of your stomach and digestive tract, liver, kidneys, and nervous system.

Your body's energy needs are spoken of as *calories*. Only carbohydrates, fats, and proteins provide calories in your diet. Although foods contain vitamins and minerals, these elements do not provide calories. Water also has no calories. Labels tell how many grams of carbohydrates, fat, and protein are in food. Labels also list total calories.

Carbohydrates have 4 calories per gram, fats have 9 calories per gram, and proteins have 4 calories per gram. It would almost seem logical that it would be better to eat more fatty foods since they provide the most energy (calories). Gram for gram, they do provide the most energy, but eating lots of fat can cause many problems. Excess dietary fat can lead to various cardiovascular diseases as well as obesity.

The quality of calories is just as important as the proper quantity of calories. Receiving 1,000 calories from empty-calorie foods and 1,000 calories from a well-balanced diet is not the same. Both plans provide 1,000 calories, but only the balanced diet will provide the required vitamins and minerals.

The more intense an exercise, the more calories you need. If you were to walk and run for the same amount of time, running would require the most calories. How long the exercise lasts (its duration) also has an impact on caloric requirements. If you were to exercise for 20 minutes one day and then do the same type of exercise the next day for 30 minutes, you would need more calories to carry out the exercise for 30 minutes.

Your heart beats
all the time,
even while you
sleep, and needs
a constant supply
of energy.



With planning, healthy meals can be prepared even in the wilderness.

To monitor your food intake, it is necessary to be aware of your body. If you are not eating enough, you may feel lazy and tired. You will not have enough energy to participate in many activities. You also may be more vulnerable to colds and flu.

If you are constantly eating more than your energy needs, you may feel bloated and uncomfortable. Over time, you may notice a weight gain. Weight gain is often slow enough that you do not notice it right away. In fact, you may not notice until you put on a favorite shirt and discover your clothing does not fit anymore.

Weight control is more than just maintaining an ideal body weight throughout your life. Weight control involves fat control. If you are inactive and eat poorly, your body composition may have a large portion of fat. If you are active, exercise regularly, and eat nutritious meals, though your body weight may be the same as that of someone who is fatter, your body will have better muscle tone and less fat than someone who is inactive and eats poorly.

Some people (athletes, for example) may weigh more but are lean. Other people might not weigh as much but can still be classified as obese. With respect to how you look and feel, it is better to think in terms of “fat control” rather than “weight control.”

Behavior Modification

Exercise and good nutrition are two of the elements of having a healthy weight; the other is *behavior modification*. Behavior modification means the techniques, tips, and tricks you use when you’re trying to become more active or to eat healthier. One example of behavior modification is getting a reward for succeeding at the behavior. When used together, these three components can help you control the amount of fat on your body. By eating properly, your dietary intake will be balanced and adequate in calories. By exercising, you will use the calories that you consume.

Most vegetables, grains, and fruits are high in nutrition and low in fat compared with dairy products and meats. Emphasize the high-priority foods when planning meals and snacks. Remember that it is important to eat a well-balanced diet of foods from all food groups. Serve yourself smaller portions to begin your meal. Eat until you are comfortably full, then stop.

Good Snacks Help Build Better Bodies

For some people, snacking between meals is a good idea. In fact, it is healthier to eat a light snack between breakfast and lunch, and between lunch and dinner. Of course, nutritious snacks are best, and too much snacking will spoil your appetite for a healthy lunch or dinner. Snack on fruit or finger vegetables such as celery and carrots. Try not to eat just because you are bored. You could easily devour a whole bag of potato chips or half a bag of cookies when you are watching television or doing homework. Make a point to notice what you are eating and how much.



A menu plan not only helps you prepare nutritious meals, but also helps cut down on the expense of unplanned food purchases.

Exercise at least 60 minutes a day.

Your exercise program should include a mix of aerobic activities (such as bicycling or brisk walking), muscle-strengthening activities (such as resistance training), and bone-strengthening activities (such as running or lifting weights).



Physical Fitness

Personal fitness is the result of your efforts to have the healthiest life possible. Social, mental, and spiritual fitness are important parts of achieving personal fitness. Physical fitness is an important part, too. Physical fitness means different things to different people. Many fitness experts say physical fitness is a state of well-being with low risk of premature health problems and reduced risks of diseases like heart disease and obesity. A physically fit person has the energy to participate in a variety of physical activities, to enjoy daily recreational and social activities, and to meet the energy demands of unforeseen emergencies.

Choose now the
kind of lifestyle
you want to have.

Physical fitness includes the following four components:

1. Cardiorespiratory fitness
2. Muscular fitness (strength and endurance)
3. Flexibility
4. Body composition

A personal physical fitness program is important because the ordinary tasks of daily living do not provide enough regular vigorous exercise to maintain good body composition, cardiovascular endurance, or muscle tone.

Several studies have shown that Scout-aged people in the United States lack physical fitness. Most adults do not exercise regularly, and school-age children (ages 6 through 17) have become less fit in recent years. Today's young people generally have more body fat and perform worse in cardiovascular endurance events than youth in the past.

The President's Council on Sports, Fitness & Nutrition reports that children and teens today have poorer physical fitness than those of 20 years ago. Many young people cannot run a mile or do a single pull-up. These things are important because the habits and attitudes you develop as a Scout and young adult are the habits and attitudes you will carry with you as an adult.



Team sports are a great way to combine exercise and fun.

No matter how physically fit you are now, you need to know why, how, and when to start an exercise program. The benefits of exercise include weight control, less stress, better muscular tone, greater cardiovascular endurance, greater flexibility, a better self-image, and just feeling good about yourself and about the way you look.

Mapping Out a Course

Ask your parent or guardian to help you map out a 1-mile course around your neighborhood by driving you in a vehicle so you can check the odometer reading. Once you and your parent or guardian have selected a safe course, go out and walk or run that mile.

Create an index card for each week and write how long it takes you to complete that mile every day you walk or run the course. Keep your record posted on your refrigerator so you can see your progress. You and will be amazed at the results.

If you have to walk most of the course the first few days, do not be discouraged. Just try to run a little more of your route each day. You will be amazed at how quickly you can progress from barely being able to walk and run a mile to breezing through it and adding more miles to your daily routine.

One of the amazing things about the human body is how well it responds to being physically active. But it might take a few weeks for you to really notice the results. Stick with your exercise plan and be patient—you will get in better shape. You will find yourself creating a good habit that you will want to stick with because you will be able to *see* and *feel* the results. Persevere! You are worth it.

Handling a Side Stitch

If you experience a condition called “side stitch” when running, do not be alarmed. Slow down to a slow jog, then breathe deeply in through your nose and out through your mouth until the side stitch goes away. Normally, you can run through this minor discomfort as long as you breathe deeply and correctly when you run.

Cardiorespiratory Fitness

Cardiorespiratory fitness is the ability to perform aerobic exercise for prolonged periods of time. *Aerobic exercises* are defined as those exercises that involve a large portion of your body’s muscle mass and are continuous and rhythmic. Aerobic exercises are used mainly for fun and to reduce stress, control weight, and improve cardiovascular endurance. Your body adapts to regular aerobic exercise in about six to eight weeks. Adaptations that help reduce stress happen quickly. Adaptations that help reduce fat and control weight take a little longer.

No single aerobic exercise is best suited for everyone. The best exercise for you is the one that you enjoy, and that you have opportunity to do, including access to any necessary facilities or equipment.

Exercises differ in the muscle groups they use. While running, walking, and bicycling use mainly leg muscles, swimming also uses back and arm muscles. Many health professionals consider swimming to be a superior aerobic exercise because it is a full-body, no-impact activity.

When choosing an exercise, you must first consider your purpose in exercising. Then choose an appropriate exercise that is fun and that you can do regularly. Cross-training—varying your workouts to strengthen both the muscular and the cardiovascular systems—helps prevent injury and boredom or burnout from too much repetition.

To decrease
the chances of
cramping, delay
your exercise for
an hour or two
after a meal.

Aerobic Exercises Get You Moving

Types of aerobic exercises include walking, backpacking, bicycling, aerobic dance, jogging, running, and swimming. Different types of aerobic exercises vary greatly in intensity, or the difficulty of the exercise.

An exercise program is progressive.

Start out slowly.

After you choose an exercise, determine how much to exercise. Follow the **FITT Scout** principles:

- **Frequency:** Exercise 3 to 5 times each week.
- **Intensity:** Exercise at a comfortable intensity. On a scale of 0 to 10, where 0 is resting and 10 is maximum effort, you should be in the 5 to 8 range.
- **Time:** Exercise 15 to 60 minutes each time, with a goal of at least 30 minutes each time.
- **Type:** Exercise using aerobic activities.



It is important to exercise correctly. Remember that an exercise program is progressive. Let's use running as an example. You might not be able to run for 20 minutes continuously the first day. If you need to, start out the first few days just walking. Then alternate several minutes of running and walking. In a few weeks, you will be running the entire 20 minutes. Remember, start slowly! Do not forget to warm up and stretch.

The intensity of the exercise is *inversely related* to the amount of time you can continue the exercise. In other words, if you jog slowly, you may be able to exercise for 20 minutes at first. But if you were to sprint, you might last only a few minutes.

You should have a sense of how you feel when you are exercising. Do not exhaust yourself. Pace yourself to finish the 20 minutes. A good running pace is a "run-talk" pace, slow enough that you can carry on a conversation with someone running beside you. If you are running too fast, you will be too tired and unable to talk comfortably.

Another way to monitor your intensity is to check your heart rate about five minutes after you start exercising. To do this, stop exercising and place the index and middle finger of your right hand on the radial artery of your left wrist. When you feel the heartbeat pulsations, count the number of beats you feel in 15 seconds. Multiply the number of beats you count by four to get your heartbeat per minute. Your exercising heart rate should be between 125 and 170 beats per minute.



The first few minutes of exercise may seem uncomfortable because it takes a few minutes for your body to adjust each time you exercise. You can lessen the initial discomfort by starting with an appropriate warm-up.

A suitable warm-up includes five to 10 minutes of low-intensity movements followed by several minutes of stretching exercises. The best way to start a warm-up is to actually do your aerobic exercise but at a very light intensity. For example, if you run, your warm-up might include walking or a slow jog. Warm-up activities help decrease the chance of injury and increase blood flow to active muscles, body temperature, and metabolism (the chemical processes that release energy in the body). All these changes help make for a smoother flow into your exercise.

The harder you exercise, the higher your heart rate, and the less time you will be able to continue the exercise.

Gain Without Pain!

While exercising (or doing the exercise tests for this merit badge), if you experience shortness of breath, pain in your chest or arms, nausea, or difficulty breathing, or if you feel physically exhausted, ease into a slow walk. Do not overexert yourself to the point of extreme discomfort.

Include stretching exercises in your warm-up.



Muscular Strength and Endurance

Muscular strength is the ability of your muscles to contract and exert force against an opposing force. Muscular strength is usually measured in terms of how much force your muscles can exert—for example, lifting a certain amount of weight.

Muscular endurance is the ability of your muscles to contract repeatedly or hold a contraction against an opposing force. For example, hiking up a mountain or carrying supplies to a camp requires great muscular endurance. Every activity you do requires some muscular strength and endurance.

Strengthening exercises such as weight lifting build denser, stronger bones and will help a person maintain bone density later in life. These types of exercises can also enhance coordination and reaction time, and build stronger ligaments

Maintaining strong muscles throughout your life will let you take part in more activities when you get older. Many people lower their physical activity so much as they age that muscles weaken quickly and stop them from doing simple household chores.

and joints to help prevent injury. Strong muscles also help support the bony structures of your body and help with good posture.

The abdominal muscles are some of the most neglected muscles of the body. Weak abdominal muscles are a major cause of lower back pain. This muscle weakness also may contribute to spinal curvature abnormalities, poor posture, and a bulging belly. Strong abdominal muscles help support the spine and maintain good posture.



Hiking is a great way to build muscle endurance.

You do not need an expensive weight room or a health club to do strengthening exercises. Sit-ups, push-ups, and pull-ups are great exercises to strengthen your shoulders, chest, back, arms, and abdomen. Spending 10 to 20 minutes each day doing these three exercises will make a difference.

Start by seeing how many sit-ups, push-ups, and pull-ups you can do without stopping. Take one-third to one-half of that number and do that many sit-ups, push-ups, and pull-ups as a set three times. Rest a minute or two between each set. As you become more fit, you will be able to do more repetitions of these exercises. Try to push yourself with the goal of being tired but not exhausted at the end of each set. This will help you to get stronger over time.

Some strength-training programs require special training techniques such as alternating body parts so muscles can get

Remember to
avoid “bouncing”
when counting
how many sit-ups
you can do.

the rest they need. For your training program, you can do sit-ups, push-ups, and pull-ups as many as four to six days each week, or each day that you do your aerobic exercise. Make sure that you rest about two minutes between each set of exercises. Breathe out (exhale) when you exert yourself such as in the pulling position of a pull-up or the pushing portion of the push-up.

As your training progresses, you will notice increased strength. You can keep a progress record by testing yourself every week. Use the results from the previous weeks to gauge your overall progress and to decide whether your exercise sets should be increased.

Weight training routines are built around repetitions and sets. A repetition is a series of a single exercise. A set is a group of repetitions of that exercise. For example, to complete two sets of 15 repetitions for the chest/bench press, you must do the chest/bench press 15 times in a row to complete one set, rest, and then do the chest/bench press another 15 times in a row to complete your second set.

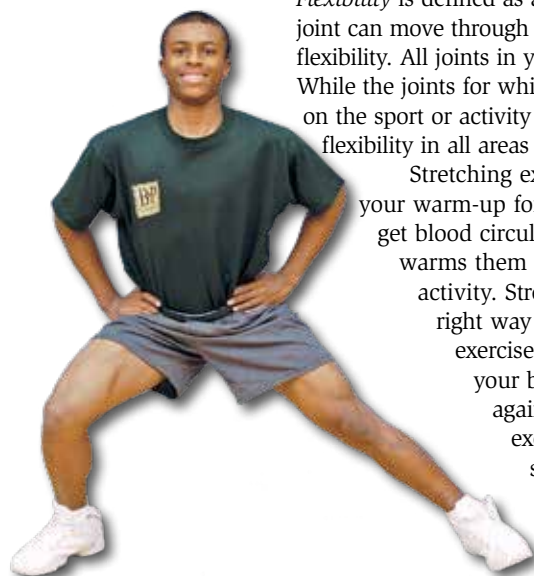
Flexibility

Flexibility is defined as a joint's range of motion. The more a joint can move through a range of motion, the greater its flexibility. All joints in your body have some degree of flexibility. While the joints for which flexibility is most important depend on the sport or activity in which you are involved, overall good flexibility in all areas of the body is very important.

Stretching exercises are also an important part of your warm-up for an aerobic exercise. Stretching helps get blood circulating into the working muscles, and warms them up to help prevent injury during an activity. Stretching is easy to learn, but there is a right way and a wrong way. Do your stretching exercises at the end of your warm-up, when your body is warmed to a light sweat, and again when you have completed your exercises. The right way is to hold each stretch for about 20 to 30 seconds.

Try to focus your attention on the muscles being stretched, and relax.

Do not bounce up and down or



stretch past the point of pain. Stretch the muscle to the point where you feel a light tension on the muscle. As you feel the tension release, increase the stretch just a little until tension is felt again. Continue this for about 30 seconds, then rest and repeat the stretch two or three times. Breathe normally as you hold the stretch.

The sit-and-reach test is an easy way to measure flexibility of areas such as the lower back and the back of the thighs. This test uses a special “sit-and-reach” box or similar improvised device such as a yardstick taped to a bench. This stretch works many joints and muscles, including hips, shoulders, and ankles.



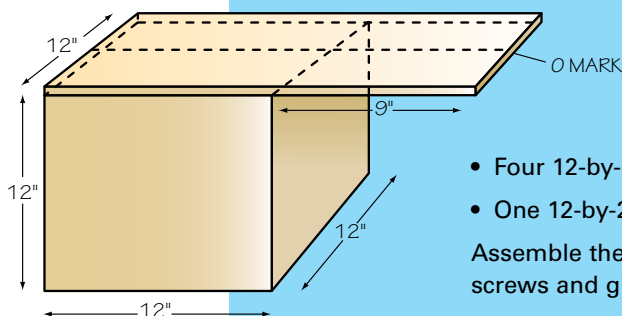
Sit and reach to measure lower-back flexibility.

To assume the starting position, remove your shoes and sit facing the sit-and-reach box. Keep your knees fully extended and flat on the floor, and place your feet against the box. Extend your arms forward with your hands placed on top of each other, palms down. Bend at the hips (not curling the shoulders), reach forward along the measuring scale, hold for at least one second and relax. Take the best measurement of four trials.



Making a Sit-and-Reach Device

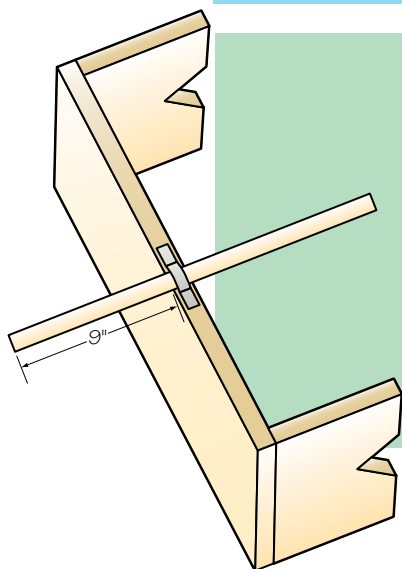
To make the box, cut the following pieces, using any sturdy wood or $\frac{3}{4}$ -inch plywood.



- Four 12-by-12-inch pieces
- One 12-by-21-inch piece

Assemble the pieces using wood screws and glue.

Inscribe the top panel with gradations so that the 23-centimeter (or 9-inch) mark is in line with the vertical panel against which the feet will be placed. The measuring scale should extend from 0 at the front edge to 53 centimeters at the far end. You may choose to simply tape a yardstick to the top panel.



As an alternative to the sit-and-reach box, tape a yardstick to the top of a bench. Or, tape a yardstick to the edge of a bench laid on its side so that the seat is the panel against which the feet are placed. Make sure to mount the yardstick so that the 9-inch mark is in line with the panel against which the feet are placed.

Body Composition

Body composition is the proportion of your body that is fat or muscle. It normally is given as a percentage of body fat. For example, if you weigh 120 pounds and have 15 percent body fat, then you have 18 pounds of fat on your body.

A certain amount of fat is necessary to sustain life. This essential fat is located in your bones, in your nervous system, and around your internal organs. Too much fat can be unhealthy and lead to diseases like Type 2 diabetes, high blood pressure, and other cardiovascular diseases. For these reasons, there is a lot of pressure on Scout-age youth to have a “normal” body composition and weight. There are many factors that affect a young person’s body composition that are outside of their control, such as their genetics. But, fortunately, eating healthfully and being physically active are very effective at reducing the risk for these diseases even if your weight does not change! In other words, you will be much healthier if you do your best to eat healthy and be active rather than focusing solely on trying to lose weight. You can be healthy at any size.

If you are concerned about having an unhealthy amount of body fat, the most effective way to lose it is to burn calories by being more physically active and eating healthfully. Part of this is to reduce eating “empty calories.” These are foods that have a lot of calories but not many nutrients—like regular soda, candy, and fried chips. Replace these with healthier choices like fruits, veggies or low-sugar or low-fat alternatives to your empty calorie choices.

If you are trying to lose fat, it is important to exercise for longer periods of time to burn more calories. Picking an aerobic exercise you like will help you stick with it longer. If you have the time and interest, it will be helpful to include resistance exercises such as weight lifting or calisthenics in your program. If your goal is to lose weight, remember that eating healthfully is just as important as exercising, so be sure your routine includes eating the right foods in reasonable quantity.

Weight control is a slow, unpredictable process. When fat needs to be lost, a one-pound-per-week goal is best. This is an average rate. Some weeks you might not experience any fat loss, and other weeks, more. Rapid fat and weight loss is not healthy. If you stick with a good exercise program and eat

healthfully, you will probably lose weight. But remember: Eating healthfully and being more active are far more important to your personal fitness than is having a certain body weight.

Just as you would see a physician for health and medical problems, professionals are available to give exercise and nutrition guidance. Exercise physiologists and registered dietitian nutritionists from a nearby college or university usually are more than willing to meet with you or your troop.

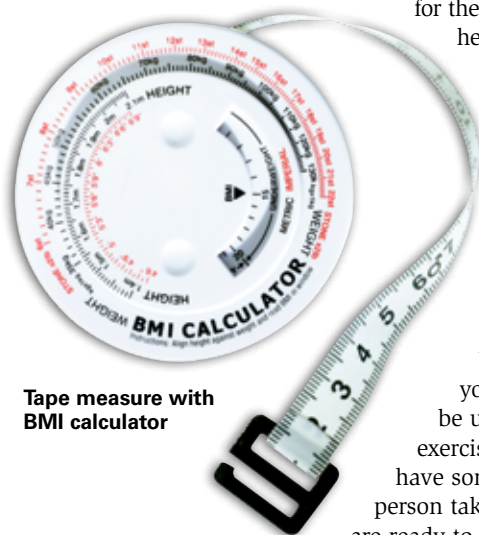


Using a body fat caliper

Measuring Body Composition

You can measure body composition in more than one way. In fact, some medical professionals use very expensive equipment for the most accurate results. However, many health care professionals use a simple tool called a body fat caliper that can quickly calculate body fat percentages and other body composition measurements with reasonable accuracy.

Another method is by using a tape measure. You can take measurements of several places, such as the thighs, arms, abdomen, shoulders, and chest, once a month. While these measurements will not tell you your body fat percentage, they can be used to monitor the progress of your exercise and nutrition program. It's best to have someone help you, and to have the same person take your measurements whenever you are ready to be remeasured.



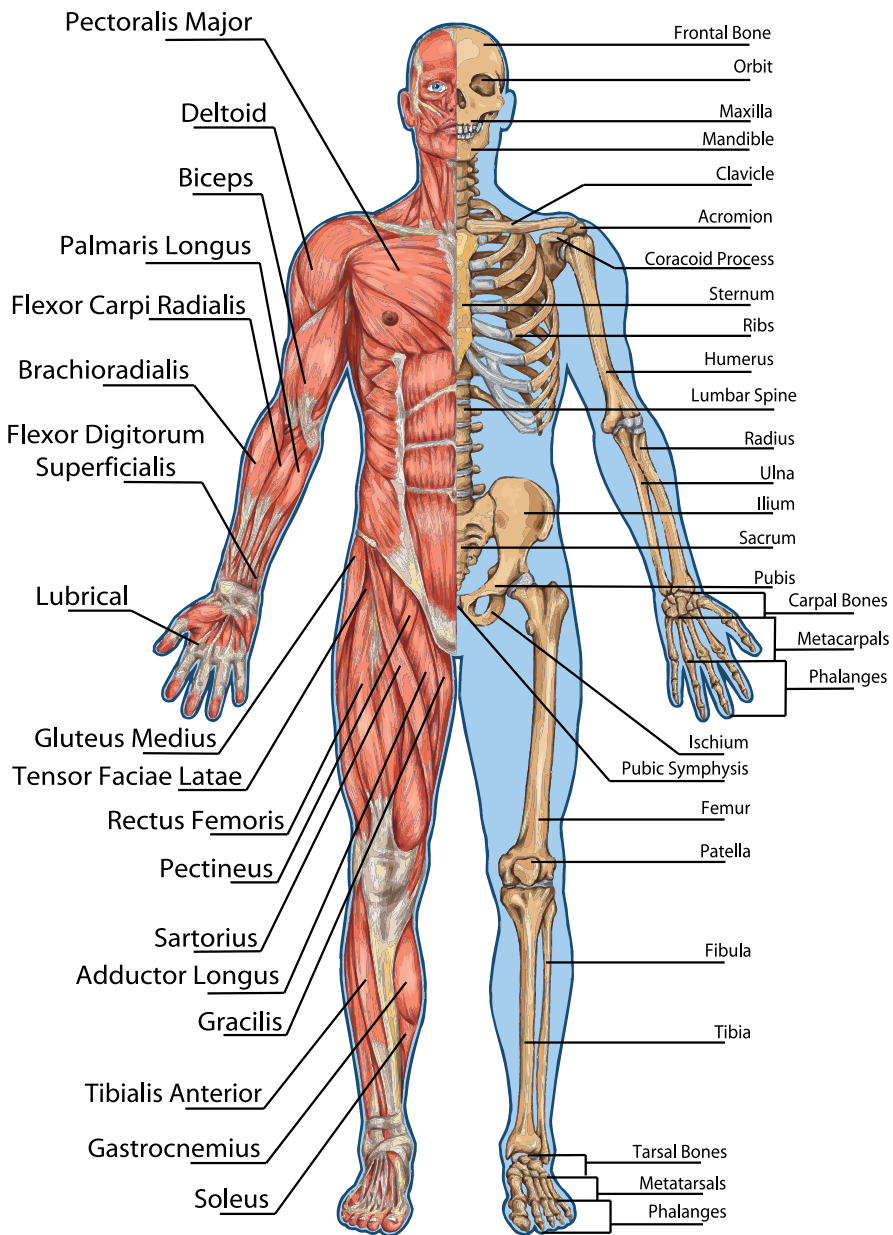
Tape measure with BMI calculator

An efficient way for you to determine your body composition is by using what is called the *body mass index*, or *BMI*. Your BMI is computed by using a formula. Like all “home” methods for measuring body fat, the BMI is not entirely accurate. This is especially true if you are a fit athlete with a very high muscle mass. That may very likely elevate your weight and cause your BMI assessment to identify you as overweight or obese. For the average person, though, the BMI is a useful method.

BMI is calculated the same way for children and teens as it is for adults. But because most young people are still growing, it is interpreted differently. Your health care provider can tell you if your BMI is appropriate for your age. This is called BMI-for-age. (See “Calculating Your BMI” on page 69.)



Even if you don't lose weight, you will still be healthier than you were before you started exercising regularly.



Creating a Personal Fitness Program

Other than not smoking, eating healthy foods and exercising regularly are the two most important things you can do to live a long and healthy life. Studies of people who live to great age—into their 90s and beyond—show that these people have at least one thing in common: regular exercise. People who avoid the major health issues of today, like heart disease, hypertension and Type 2 diabetes, also eat a healthy diet. Because of their importance, the major goals of your 12-week personal fitness program are for you to become more physically active and eat healthier.

Exercise Records

Remember that an important part of healthy exercise is the discipline of staying on a regular program. To help with this discipline, keep an accurate record of your fitness program. (This is also a merit badge requirement.) Your exercise log should record the date, describe the activity, and show the comparative measurement. If it is aerobic exercise, record the frequency, intensity, time and type of exercise; if it is a muscular-fitness exercise, record the number of repetitions, time, distance, number of sets, and weight used.

Two forms are included on the next pages to use for your personal record, or you can create your own forms. On the Exercise Log, describe your planned exercises in the left column and then simply check off each item completed on the indicated dates. On the Exercise Journal, enter a daily description of your activity with one journal page for each week. Use either the log or journal format for your daily record.



Exercise Journal

Week

Date	Description of Activity

Exercise Log

[illegible]



Participant Name _____ Age _____

Date Started _____ Date Completed _____

Paper Log Instructions:

Circle each healthy eating goal you achieve. Enter your daily physical activity in minutes and add up the total at the end of the week. Circle the total if your goal is met. Once you achieve your goals in week 6, 7, or 8, you're eligible to receive the PALA+ award certificate at www.fitness.gov

Healthy Eating Goals (key)

-  Focus on Whole Fruits
-  Make More of Your Grains Whole
-  Select Foods with Less Sodium
-  Drink Water Instead of Sugary Drinks
-  Move to Fat-Free or Low-Fat Dairy
-  Vary Your Veggies
-  Vary Your Protein Routine
-  Limit Added Sugars
-  Replace Saturated Fats with Unsaturated Fats

PARTICIPATION LOG								
WEEK	HEALTHY EATING GOALS	PHYSICAL ACTIVITY GOAL						
1		Sun	Mon	Tues	Wed	Thurs	Fri	Sat
2		Sun	Mon	Tues	Wed	Thurs	Fri	Sat
3		Sun	Mon	Tues	Wed	Thurs	Fri	Sat
4		Sun	Mon	Tues	Wed	Thurs	Fri	Sat
5		Sun	Mon	Tues	Wed	Thurs	Fri	Sat
6		Sun	Mon	Tues	Wed	Thurs	Fri	Sat
7		Sun	Mon	Tues	Wed	Thurs	Fri	Sat
8		Sun	Mon	Tues	Wed	Thurs	Fri	Sat

Healthy Eating

Besides trying to exercise regularly, another important part of personal fitness is doing your best to eat healthfully. Keep track of the number of healthy eating goals you achieve each week. These can be any eating goals you want to work on. On page 42 are listed tips for achieving nine possible goals; see how many you can achieve each week. You can create your own separate record or use the one above from the President's Council on Sports, Fitness & Nutrition.

The Connection Between Good Health and Exercise

Regular exercise can provide important benefits for your overall health. People who exercise regularly are less likely to be overweight because exercise burns up calories. Blood pressure is reduced by exercise. In fact, the combination of exercise and weight reduction often allows people with hypertension (high blood pressure) to control their blood pressure without the use of medication. This control may be better than was possible with drugs.

It is common for smokers to quit smoking as they begin exercise programs. Research has shown that active joggers have lower total cholesterol than men of the same age who do not run. There is no substitute for exercise when it comes to protecting your heart.

Without sufficient exercise, bones lose their calcium and become brittle. This demineralization of bones has been documented in astronauts returning from space, where the lack of gravity robs activity of its exercise value. Weak and brittle bones, caused by lack of exercise, are common in the elderly. Strong bones contribute to personal fitness by keeping an active person energetic.

It's important to find the activities you like to do best, and there are lots of choices when it comes to exercise options. For people who are limited by choice or circumstances to one form of exercise, a full-body exercise is strongly recommended. In full-body exercise, all muscles and joints are moved and flexed. Such forms of exercise include brisk walking, running, cycling, rowing, and swimming.

Types of Exercise

People who exercise regularly feel and look younger than those who do not. Improvements in muscle tone and circulation undoubtedly contribute to freedom from fatigue and the feeling of well-being that the physically fit enjoy.

The connection between being in good shape and being productive is also a powerful one. Research has shown that healthy people are more productive and efficient than those who are not healthy.

Walking, particularly brisk “power walks” of several miles on a daily basis, can give many of the same benefits as running without most of the injury risks. Walking can also be done at any age without special equipment or facilities. Cycling, too, matches and even enhances the health benefits of running by eliminating impact stress. However, it does have a relatively high injury rate and requires special equipment.



Sports like snowboarding help people keep fit during cold winter months.

Rowing and swimming are to some degree superior to other types of full-body exercise because both the upper and lower body are fully involved (assuming you are rowing a sliding-seat craft or simulator). The injury rates for rowing and swimming exercise are very low, and there is no impact stress in either activity. Joint stress is further reduced in swimming by the buoyancy effect of water immersion. But rowing requires relatively expensive special equipment, and swimming requires access to a suitable, safe facility.

Many sports incorporate full-body exercise such as tennis, golf (if you walk the course), and team sports such as soccer or basketball. The fun and competition of sports add further incentive for healthy exercise. In terms of healthy lifestyle, every person should choose a form of exercise or sport that can be pursued and enjoyed for a lifetime. Among the many benefits will be a significantly healthier—and longer—life.

Water sports are popular during the long, hot days of summer.

Physical Fitness Tests

It is important to know your current level of fitness to create the best possible exercise program for you. The following tests will help you measure your physical fitness. You will also use these tests to fulfill your merit badge requirements. Each test must be administered by, or under the supervision of, your merit badge counselor. After you've completed the fitness testing, compare your scores to the tables that begin on page 80. If you scored at or below the 20th percentile, work on improving in that test. If you scored above the 20th percentile and would like to do even better, you might want to consider including this in your 12 weeks of exercise training.

Aerobic Fitness Test

Run or walk one mile as fast as you can.

Flexibility Test

Using a sit-and-reach box constructed according to specifications in this pamphlet, make four repetitions and record the fourth reach. This last reach must be held steady for one second to qualify. (Remember to keep your knees down.)

Strength Tests

You must do the curl-ups exercise and one other (either push-ups or pull-ups). You may also do all three for extra experience and benefit. (Measurements should be in numbers and repetitions.)

1. *Curl-ups*—Record the number of curl-ups done correctly in 60 seconds. The curl-ups must be done in the form explained and illustrated in the merit badge pamphlet.
2. *Pull-ups*—Record the total number of pull-ups completed correctly in 60 seconds. Be consistent with the procedures presented in the merit badge pamphlet.
3. *Push-ups*—Record the total number of push-ups completed correctly in 60 seconds. Be consistent with the procedures presented in the merit badge pamphlet.



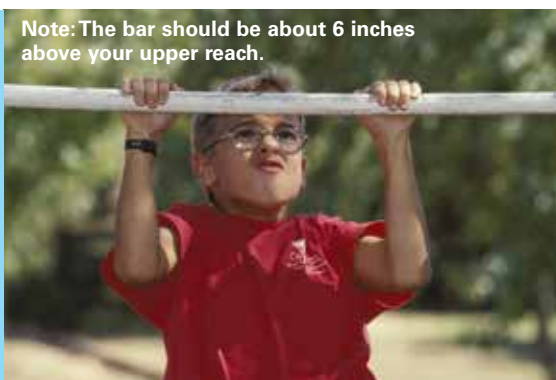
Curl-Ups

To assume the starting position, lie on your back with knees flexed, feet on the floor, and heels between 12 and 18 inches from the buttocks. Cross arms on your chest with the hands on the opposite shoulders. The feet are held by a partner to keep them on the floor. Curl to the sitting position until the elbows touch anywhere between knees and hips). Arms must remain on the chest. Return to the starting position, with lower back and shoulder blades touching the floor.

Pull-Ups

Begin the exercise hanging from the bar with arms fully extended and hands on the bar, palms forward and directly above the shoulders. Pull up until you can touch the top of the bar with the bottom of your outstretched chin.

Note: The bar should be about 6 inches above your upper reach.



Push-Ups

Begin in a prone position with the palms flat on the floor and placed under or slightly wider than the shoulders. The feet are flexed up with the ball of the foot and the toes on the floor. Push up by fully extending the arms. Try not to lock the elbows. The shoulders, hips, and legs should remain in a straight line from the heels to the head. A correct push-up is when the elbows are extended when “up” and the elbows are at, or less, than a 90 degree angle when “down.”

**Body Composition Test**

While the BMI, or body mass index, does not measure actual body fat, it is a practical method to screen for weight problems. If you have an interest in changing your body composition as you work on this merit badge, then you may want to determine your BMI. These measurements should only be used as one indicator of the progress you make as you pursue your personal physical fitness program; they should not be used as an indicator of your overall fitness.

Calculating Your BMI

Step 1—Multiply your weight in pounds by 703.

Step 2—Divide the figure you get in No. 1 above by your height in inches.

Step 3—Divide the figure you get in No. 2 above by your height in inches.

Here is how you would calculate your BMI if your weight is 130 pounds and your height is 68 inches:

Step 1— $130 \times 703 = 91390$

Step 2— $91390 \div 68 = 1344$

Step 3— $1344 \div 68 = 20$

Fitness Measurements

Aerobic Fitness	Start	4th Week	8th Week	12th Week	Goal
1-Mile Run/Walk (In minutes and seconds)					
Strength	Start	4th Week	8th Week	12th Week	Goal
Curl-Ups					
Push-Ups					
Pull-Ups					
You must do the sit-ups exercise and one other (either push-ups or pull-ups). You may also do all three for extra experience and benefit. (Measurements should be in numbers and repetitions.)					
Flexibility	Start	4th Week	8th Week	12th Week	Goal
Reach (In centimeters)					

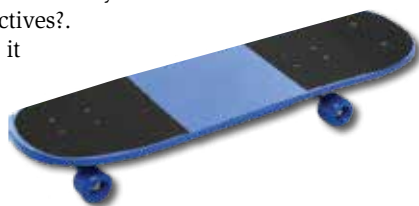
The Centers for Disease Control and Prevention has a quick calculator for teens to find out their body mass index. This can be handy for requirements 6 and 8. With your parent or guardian's permission, go to www.cdc.gov/healthyweight/bmi/calculator.html, plug in the numbers, and you will almost instantly find out your BMI.

Your Fitness Program

Your comprehensive fitness program should be individualized to you. Consider the four components of physical fitness (cardiorespiratory fitness, muscular fitness, flexibility, body composition) and your current fitness level. What do you want to accomplish? What are your goals or objectives?.

While your program will be specific to you, it should include these five elements:

1. Warm-up
2. Aerobic exercises
3. Strength exercises
4. Flexibility exercises
5. Cool-down



For good health, move 60 minutes every day. Most of this can be unplanned and casual, like walking the dog, biking to school or playing in the park. But to improve cardiorespiratory fitness, include vigorous intensity aerobic exercise at least three days per week and, to improve muscular fitness, strengthening exercises at least three days per week. To help build healthy bones, some of this activity should include jumping and landing, like jumping rope, basketball, tennis, and hopscotch.

Warm-Up

The warm-up routine should be several minutes of low-intensity movement and then some muscle stretching. For example, you could do a light jog or run in place for two to three minutes; skip rope at a moderate pace for one to two minutes; walk briskly for three to five minutes; or swim a crawl or trudgen stroke at slow to medium speed for 50 to 100 yards. This low-intensity exercise should then be followed by two to three minutes of stretching exercises.

Swimming
provides good
aerobic exercise.

Aerobic Exercises

To improve cardiorespiratory fitness, think of the **FITT** idea from page 50. The goal for any type of aerobic exercise is to have a **F**requency of 3 to 5 days per week, an **I**ntensity of 5-8 on a 10 point scale, and a **T**ime of 15-60 minutes per day. The **T**ype of move is up to you.

Start your program by using a plan that alternates periods of vigorous and slow/resting activity. For example, if your fitness goal is to jog for 30 minutes, start by jogging for one minute, walking for two minutes, and repeating the cycle. Do what you can without exhausting yourself, even if it's only 5 minutes, and work up to completing a 30-minute session. With each workout you will find yourself getting more fit. Over time, you will find you can jog the entire 30 minutes. You can create your own program like this for almost any aerobic activity.

Strength Exercises

There are over 650 muscles in the human body. So, when thinking of how to exercise them, group them together: upper body, core (or torso), and legs. Exercise these three groups three times per week. After your aerobic and stretching routines, complete an exercise for your upper body (such as push-ups or pull-ups), your core (planks, curl-ups), and your legs (wall sits, body squats). Alternate between "front" and "back" exercises on different days, if possible. Use your body weight, a set of weights, or a machine routine. For exercise ideas, talk to your merit badge counselor or, after getting your parent or guardian's permission, do an internet search on "bodyweight exercises."

Try to do three sets for each body part and with each set, try to push yourself so your muscles are tired at the end of each set. You might want to do your exercises in several sets with a few minutes of rest between sets of the same body part. (For example, you could do a set of 15 push-ups, a set of 15 curl-ups, and a set of body squats; then repeat this cycle two more times.)

Keep a log of your activity. Doing this will remind you to rest your muscles for at least a day after a strength-training workout before working the same muscles again.

Flexibility Exercises

Follow your strength exercises with a flexibility workout.

❶



❷



❸



Cats and Camels

Step 1—Get on your hands and knees as shown, with your hands and knees a shoulder's width apart.

Step 2—Slowly arch your back upward, toward the ceiling, then lower it toward the floor.

Step 3—Straighten your back to a comfortable position. Slowly repeat steps 1 through 3, five times.



Lower Trunk Rotations

Step 1—Lie flat on your back with your knees bent as shown.

Step 2—Keep your knees together and slowly lower them to the left. Hold this position for 10 to 15 seconds.

Step 3—Raise your knees back to the starting position, then slowly lower your knees to the right and hold this position for 10 to 15 seconds.

Repeat steps 1 through 3, three times on each side.

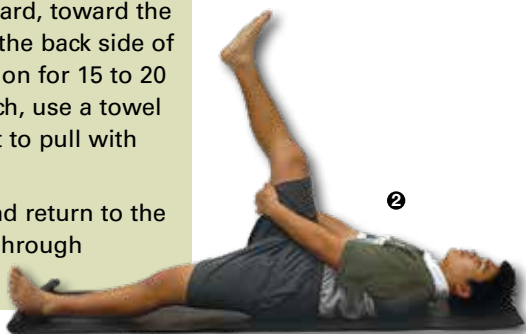


Hamstring Stretch

Step 1—Lie flat on your back and extend one knee toward your head, as shown, with your hands clasped together at the back of your knee.

Step 2—Slowly lift your foot upward, toward the ceiling, until you feel a stretch in the back side of your thigh or calf. Hold this position for 15 to 20 seconds. (To obtain a better stretch, use a towel or belt wrapped around your foot to pull with your hands and arms.)

Step 3—Slowly lower your leg and return to the starting position. Repeat steps 1 through 3, three times for each leg.



Cool-Down

After your last exercise, get up and walk around or take a casual swim. If you are walking, move your arms back and forth, then up and down. Do not simply roll over and play dead after your last exercise. The cool-down routine helps prevent muscle cramps and enhances the aerobic and flexibility benefits of your exercise. If you simply “play dead,” when you do try to get up you may feel light-headed or dizzy and risk fainting or nausea.

After your cool-down exercises, check your pulse for regular beat.

Sample Program

Refer to the Sample Physical Fitness Program starting later in this chapter. This program is for a Scout who just earned First Class. They have been physically active because of the activity requirements needed to earn Tenderfoot, Second Class and First Class ranks. They also have access to some special exercise equipment.

For variety, the sample program has several warm-up and exercise options. You can include options or alternative routines in your program, or choose one specific routine. Remember to consider access and convenience in making these selections.

If you are going swimming, biking, skating, or whatever your routine, be sure to follow all safety rules and requirements. Do not attempt to use weights or other special equipment without getting instruction on the safe use of this equipment from a coach, instructor, or experienced user.

Now, using the sample program as a model, list your personal fitness test results and personal goals to plan your own 12-week fitness program. Begin by filling in the last column (Goals) on your fitness measurement sheet. Decide what you want to achieve on each of the aerobic, flexibility, and strength measurements. Be realistic, but challenge yourself to make a substantial improvement on each measure. Then figure out what routines will get you from your starting measurements to your goals. Plan your fitness program accordingly. You may want to adjust and revise your program every week or two as you progress. Be sure that your program is reviewed and approved by your counselor before you begin the exercises.

Sample Physical Fitness Program

Warm-Up

Frequency: Before each aerobic or strength routine

1. Do ONE of the following:
 - a. Jog or run in place two to three minutes.
 - b. Do an easy rope skip for one to two minutes.
 - c. Walk briskly for three to five minutes.
2. Do stretching exercises for three to five minutes.

Cardiorespiratory Fitness

Frequency: Three times per week (MWF); Intensity: 5-8 on 10-point scale; Time: Start with 15 minutes, work up to 30 minutes; Type: Jog, walk; Do muscular fitness exercises on Tuesday and Thursday.

Review and adjust distance, repetitions, and rest intervals each week as your performance improves.

Jog-walk program:

Jogging 2 minutes _____ Repetitions _____

Walking 1 minute _____ Repetitions _____

Repeat this cycle five times (15 minutes total).

Each week, increase either number of cycles or time spent jogging.

Muscular Fitness

Frequency: Two times per week (T-Th); 15-20 repetitions (stop when tired);
Time: Two sets; Type: Bodyweight exercises. Review weights, repetitions,
and rest intervals weekly and adjust as appropriate.]

Weight lifting:

1. Press:

Weight _____ Repetitions _____ Sets _____

2. Core (torso):

Weight _____ Repetitions _____ Sets _____ Rest time _____

3. Squats:

Weight _____ Repetitions _____ Sets _____

Complete 1 set of squats, then 1 set of toe raises, and repeat

Flexibility Routine

Frequency: Five times per week

1. Hamstring stretch. Lie flat; extend one knee toward the head, with hands clasped together behind the knee. Slowly lift the foot upward, hold 15-20 seconds, then slowly lower back to the starting position. Repeat with the other leg. Do three repetitions.
2. Lower trunk rotations. Lie flat with knees slightly bent. Keep the knees together and slowly lower them to the left; hold 10-15 seconds. Raise the knees back to the starting position, then slowly lower the knees to the right; hold 10-15 seconds. Do three repetitions.
3. Cats and camels. Get on hands and knees, with hands and knees a shoulder's width apart. Slowly arch the back upward, then lower it toward the floor. Straighten the back to a comfortable position. Do five repetitions.

Cool-Down

(Five-minute "walk-and-talk" after each aerobic or strength routine)

Do not neglect the cool-down period, which helps prevent muscle cramps after exercise and enhances the benefits of your physical fitness program.

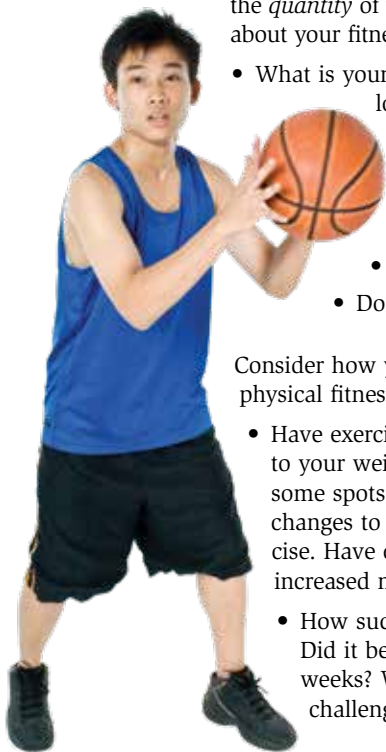
Analyzing Your Record

After week 12, compare your last test results to your first. Requirement 8 says you must show improvement on the aerobic, flexibility, and muscular strength tests. If you have shortened your time for the mile run or doubled your number of pull-ups, the *quantity* of your performance has improved. But think also about your fitness *quality*:

- What is your recovery time after strenuous exercise? (How long does it take for your heart rate to return to its normal, resting rate?)
 - What changes have occurred in your overall stamina and endurance? Are you more or less sleepy during the day?
 - Have your eating habits changed?
- Do you enjoy participating in physical activities?

Consider how your body shows the results of personal and physical fitness changes you have made in the last 12 weeks.

- Have exercise and improved eating habits caused changes to your weight? How do your clothes fit now: bigger in some spots but smaller in other areas? You may notice changes to your body composition after 12 weeks of exercise. Have changes to your body occurred because of increased muscle mass and reduced body fat?
- How successful are you with your effort to eat healthier? Did it become easier to eat healthier during this 12 weeks? Was there a Healthy Eating Goal that was more challenging than the others?



- How have exercise and a healthy diet factored into any positive changes? How can eating a wide variety of nutritious foods contribute to a healthy growing body? How does physical activity help make you stronger overall?
- Do you think you look and feel different? If you feel different, describe and explain this difference to your counselor.

Ask yourself what this experience has taught you about commitment and self-discipline. Think about what you have learned about your body's adaptability and response to activity.

Many fitness experts today believe that, on average, today's young people are significantly less physically fit than previous generations. The charts that follow reflect test performance for American young people.

Find your percentile level on the various measurements. How do you compare on both your beginning and final scores? How far up the scale did you progress after only three months of regular exercise?

In terms of your own goals, what was your success? Did you achieve the performance level you targeted for each of the aerobic, endurance, flexibility, and strength measurements? If not, your goals may have been unrealistic or your fitness program may not have been sufficiently challenging. Or maybe you simply did not make the full effort that you could have.

Based on your experience, what would you do differently in designing another fitness program for yourself? Will personal fitness be a priority for you in the future? If so, what will you do to keep fit?



Percentile Norms for the 1-Mile Walk/Run for Boys

Age	10	11	12	13	14	15	16	17+
Percentile	Time (In minutes and seconds)							
90	8:13	7:25	7:13	6:48	6:27	6:23	6:13	6:08
80	8:35	7:52	7:41	7:07	6:58	6:43	6:31	6:31
70	9:02	8:12	8:03	7:24	7:18	7:00	6:50	6:46
60	9:26	8:38	8:23	6:46	7:34	7:13	7:07	7:10
50	9:52	9:03	8:48	8:04	7:51	7:30	7:27	7:03
40	10:15	9:25	9:17	8:26	8:14	7:50	7:48	7:59
30	10:44	10:17	9:57	8:54	8:46	8:18	8:04	8:24
20	11:25	10:55	10:38	9:20	9:28	8:50	8:34	8:55
10	12:26	12:07	11:48	10:38	10:34	10:13	9:36	10:43

Source: The National Children and Youth Fitness Study

Percentile Norms for the 1-Mile Walk/Run for Girls

Age	10	11	12	13	14	15	16	17+
Percentile	Time (In minutes and seconds)							
90	9:09	8:45	8:34	8:27	8:11	8:23	8:28	8:20
80	9:56	9:35	9:30	9:13	8:49	9:04	9:06	9:10
70	10:27	10:10	10:05	9:48	9:31	9:49	9:41	9:41
60	10:51	10:35	10:32	10:22	10:04	10:20	10:15	10:16
50	11:14	11:15	10:58	10:52	10:32	10:46	10:34	10:34
40	11:54	11:46	11:26	11:22	10:58	11:20	11:08	10:59
30	12:27	12:33	12:03	11:55	11:35	11:53	11:49	11:43
20	13:12	13:17	12:53	12:43	12:10	12:48	12:32	12:30
10	14:20	14:35	14:07	13:45	13:13	14:07	13:42	13:46

Source: The National Children and Youth Fitness Study

Percentile Norms for Curl-Ups for Boys

Age	10	11	12	13	14	15	16	17+
Percentile	Number of Curl-Ups							
90	47	48	50	52	52	53	55	56
80	43	43	46	48	49	50	51	51
70	38	40	43	45	45	46	48	49
60	36	38	40	41	43	44	45	46
50	34	36	38	40	41	42	43	43
40	32	34	35	37	39	40	41	41
30	30	31	33	34	37	37	39	39
20	26	28	30	31	34	35	36	35
10	22	22	25	28	30	31	32	31

Source: The National Children and Youth Fitness Study

Percentile Norms for Curl-Ups for Girls

Age	10	11	12	13	14	15	16	17+
Percentile	Number of Curl-Ups							
90	43	42	46	46	47	45	49	47
80	39	39	41	41	42	42	42	41
70	36	36	39	39	40	39	39	39
60	33	34	36	35	37	36	37	37
50	31	32	33	33	35	35	35	36
40	30	30	32	31	32	32	33	33
30	27	28	30	28	30	30	30	31
20	24	24	27	25	27	28	28	29
10	20	20	21	21	23	24	23	24

Source: The National Children and Youth Fitness Study

Percentile Norms for Push-Ups for Boys

Age	10	11	12	13	14	15	16	17+
Percentile	Number of Push-Ups							
90	25	30	34	41	41	44	46	56
80	21	26	30	35	37	40	41	50
70	18	23	25	31	30	35	36	44
60	16	19	20	28	25	32	32	41
50	14	15	18	24	24	30	30	37
40	12	14	15	20	21	27	28	34
30	11	10	13	16	18	25	25	30
20	10	8	10	12	15	21	23	25
10	7	3	7	9	11	18	20	21

Source: The President's Council on Fitness, Sports & Nutrition

Percentile Norms for Push-Ups for Girls

Age	10	11	12	13	14	15	16	17+
Percentile	Number of Push-Ups							
90	21	20	21	22	21	23	26	28
80	19	18	20	17	19	20	22	22
70	17	17	15	15	12	18	19	19
60	14	15	11	13	10	16	15	17
50	13	11	10	11	10	15	12	16
40	10	8	8	10	8	13	12	15
30	9	7	5	7	5	11	10	12
20	8	6	3	5	5	10	5	9
10	4	2	1	3	2	5	3	5

Source: The President's Council on Fitness, Sports & Nutrition

Percentile Norms for Pull-Ups for Boys

Age	10	11	12	13	14	15	16	17+
Percentile	Number of Chin-Ups							
90	8	8	8	10	12	14	14	16
80	5	5	7	8	9	11	12	14
70	4	4	6	7	8	10	11	12
60	2	3	5	5	6	9	10	11
50	1	2	4	4	5	8	9	10
40	1	1	2	3	4	6	8	9
30	0	0	1	1	3	5	6	7
20	0	0	0	0	1	3	5	5
10	0	0	0	0	0	1	2	3

Source: The National Children and Youth Fitness Study

Percentile Norms for Pull-Ups for Girls

Age	10	11	12	13	14	15	16	17+
Percentile	Number of Chin-Ups							
90	3	3	2	2	2	2	2	2
80	2	1	1	1	1	1	1	1
70	1	1	1	0	1	1	1	1
60	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0

Source: The National Children and Youth Fitness Study

Percentile Norms for the Sit-and-Reach for Boys

Age	10	11	12	13	14	15	16	17+
Percentile	(In inches)							
90	13.0	13.5	13.0	13.5	14.0	15.0	16.0	16.5
80	12.0	12.5	12.0	12.0	13.0	14.0	15.0	15.0
70	11.5	11.5	11.5	11.5	12.0	13.0	14.0	14.0
60	11.0	11.0	10.5	10.5	11.0	12.0	13.0	13.0
50	10.5	10.0	10.0	10.0	10.5	11.0	12.0	12.5
40	9.5	9.5	9.0	9.5	10.0	10.5	11.0	11.5
30	9.0	9.0	8.5	9.0	9.5	9.5	10.5	10.5
20	8.0	8.0	7.5	7.5	8.0	8.5	9.0	9.5
10	7.0	7.0	5.5	6.0	6.0	6.5	7.0	7.5

Source: The National Children and Youth Fitness Study

Percentile Norms for the Sit-and-Reach for Girls

Age	10	11	12	13	14	15	16	17+
Percentile	(In inches)							
90	14.5	15.0	16.0	17.0	16.5	17.0	17.5	17.5
80	13.5	14.0	15.0	16.0	16.0	16.0	16.5	16.5
70	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.0
60	12.0	12.5	13.0	14.0	14.5	15.0	15.0	15.0
50	11.5	12.0	12.5	13.0	14.0	14.0	14.5	15.0
40	11.0	11.0	12.0	12.5	13.0	14.0	14.0	14.0
30	10.0	10.5	11.5	11.5	12.0	13.0	13.5	13.0
20	9.0	10.0	10.5	10.5	11.0	12.0	12.5	12.0
10	7.5	8.5	9.0	9.0	9.5	10.5	11.0	10.5

Source: The National Children and Youth Fitness Study



Careers in Personal Fitness

Personal trainers should have written policies explaining their services, costs, cancellations, length of contract, and emergency procedures. They should also require a medical clearance form to be completed before they work with individual clients.

There are many exciting careers in the field of personal fitness.

Exercise Physiologist

An exercise physiologist can prescribe exercise programs for cardiac and pulmonary patients referred by physicians. They teach people about the benefits of exercise. Exercise physiologists also evaluate cardiovascular and metabolic effects in people, and help active athletes improve and maintain their health and athletic performance.

Most exercise physiologists hold a master's degree in exercise science and have taken numerous courses in human anatomy and physiology, chemistry, biomechanics, kinesiology, exercise testing and prescription, and sports nutrition. An internship is part of the curriculum.

Colleges and universities, rehabilitation clinics, hospitals, sports and athletic programs, and health/fitness facilities hire exercise physiologists. They frequently serve as sports and wellness program instructors and directors, teachers, or academic researchers.

Personal Trainer

A qualified personal trainer has an education in physiology, health promotion, athletic training, kinesiology, or a similar field. They should hold first-aid and CPR certifications.

Once considered a luxury for wealthy people who needed help keeping up with an exercise routine, personal training has undergone an overall transformation in the past several years, emerging as one of the fastest-growing professions of this decade.

Today, fitness professionals have an in-depth knowledge of anatomy and physiology. Some are even qualified in rehabilitation, nutrition, psychology, and fitness therapies, as well as strength, conditioning, and flexibility programs.



Good trainers have excellent communication skills and can motivate, lead, instruct, and guide their clients to make better decisions regarding their own personal fitness. Some courses can be studied and passed in as little as 25 hours of study, while others can take three to four years to complete.

Dietitian

To become a dietitian, you need a four-year degree in dietetics or nutrition with a nine- to 12-month internship or completion of an undergraduate program that combines classroom and clinical experience.

A Registered Dietitian Nutritionist (RDN) must earn a bachelor of science or higher degree in nutrition science from an accredited college, complete an internship, and pass an examination required by the American Dietetic Association. Most states require a license for professional dietitians. Dietitians work with clients to figure out individual nutritional needs and develop individual nutrition plans. They educate, advise, counsel, monitor, and provide support to their clients. Doctors often refer their patients to dietitians for dietary counseling.

Coaches and Scouts

As a coach, you will need to work hard to instill both motivation and determination in your players, even when your athletes go through plateau periods when they cannot seem to beat their own best time or are on a losing streak. Coaches help evaluate athletes' personal strengths and weaknesses to help them improve their performance.

Coaches are responsible for the training and development of athletes and sports teams. Scouts conduct searches for talented players for various team sports on the college and professional levels.

For high school coaching positions, schools normally hire teachers willing to work at coaching part-time. If you feel you can help motivate athletes, plan and manage practice sessions, instruct groups or individuals in the basics of sports, and find and recruit athletes for college-level or professional leagues, and if you like to travel, this may be the career for you.

Many scouts played a sport at the college or professional level, which helps them pick out promising players from the crowd.

To get into the coaching field, you will need to earn a teaching degree in secondary education or a physical education teaching degree.

Certified Athletic Trainers

A certified athletic trainer is an expert in preventing, recognizing, managing, and rehabilitating injuries that result from physical activity. They must earn an advanced degree at a nationally accredited college and pass exams required by the National Athletic Trainers' Association.

As part of a complete health-care team, the certified athletic trainer works under the direction of a licensed physician and in cooperation with other health-care professionals, athletic administrators, coaches, and parents or guardians. A certified athletic trainer's day may include preparing athletes for practice or competition, including taping, bandaging and bracing; evaluating injuries to determine their management and possible referral to another health-care practitioner; and developing treatment and rehabilitation programs.



Physical Therapists

People who have trouble moving or performing everyday activities need the help of a physical therapist. Elderly people recovering from knee-replacement surgery, injured athletes, children with muscular diseases and birth defects, and young people with brain disorders are all potential clients for physical therapists.

These health professionals use exercises and many other techniques to get their patients moving. They also teach them how to get around using crutches and wheelchairs, and using prosthetic limbs.

You need a doctorate degree from an accredited four-year college or university and a passing score on a licensing exam to become a physical therapist. You should be good at communication skills, moving or performing everyday activities.



Physical therapists not only create treatment plans and help patients carry them out, but they also serve as teachers and coaches, inspiring patients to lead more complete lives.

The Scout Oath and the Scout Law

As part of your personal fitness program, demonstrate Scout spirit by living the Scout Oath and Scout Law in your everyday life.

The Scout Oath

On my honor I will do my best
To do my duty to God and my country
and to obey the Scout Law;
To help other people at all times;
To keep myself physically strong,
mentally awake, and morally straight.



The Meaning of the Scout Oath

Before you pledge yourself to any oath or promise, you must know what it means.

On my honor ...

By giving your word, you are promising to be guided by the ideals of the Scout Oath.

... I will do my best ...

Try hard to live up to the points of the Scout Oath. Measure your achievements against your own high standards and do not be influenced by peer pressure or what other people do.

... To do my duty to God ...

Your family and religious leaders teach you about God and the ways you can serve. You do your duty to God by following the wisdom of those teachings every day and by respecting and defending the rights of others to practice their own beliefs.

... and my country ...

Help keep the United States a strong and fair nation by learning about our system of government and your responsibilities as a citizen and future voter.

The United States is made up of countless families and communities. When you work to improve your community and your home, you are serving your country. Natural resources are another important part of this country's heritage worthy of your efforts to understand, protect, and use wisely. What you do can make a real difference.

... and to obey the Scout Law; ...

The 12 points of the Scout Law are guidelines that can lead you toward wise choices. When you obey the Scout Law, other people will respect you for the way you live, and you will respect yourself.

... To help other people at all times; ...

There are many people who need you. Your cheerful smile and helping hand will ease the burden of many who need assistance. By helping out whenever possible, you are doing your part to make this a better world.

... To keep myself physically strong, ...

Take care of your body so that it will serve you well for an entire lifetime. That means eating nutritious foods, getting enough sleep, and exercising regularly to build strength and endurance. It also means avoiding harmful drugs, alcohol, tobacco, and anything else that can harm your health.

... mentally awake, ...

Develop your mind both in the classroom and outside of school. Be curious about everything around you, and work hard to make the most of your abilities. With an inquiring attitude and the willingness to ask questions, you can learn much about the exciting world around you and your role in it.

... and morally straight.

To be a person of strong character, your relationships with others should be honest and open. You should respect and defend the rights of all people. Be clean in your speech and actions, and remain faithful in your religious beliefs. The values you practice as a Scout will help you shape a life of virtue.

The Meaning of the Scout Law

The Scout Law is the foundation of Scouting. It is expressed in just 12 simple points, but the standards they set for you are high. Use the Scout Law to guide your actions when you are alone and as a member of your family, community, and nation. The Scout Law will show you how to live as a boy and as a man.



The Scout Law

A Scout is trustworthy, loyal, helpful, friendly, courteous, kind, obedient, cheerful, thrifty, brave, clean, and reverent.

A Scout is **trustworthy**. A Scout tells the truth. He is honest, and he keeps his promises. People can depend on him.

A Scout is **loyal**. A Scout is true to his family, friends, Scout leaders, school, and nation.

A Scout is **helpful**. A Scout cares about other people. He willingly volunteers to help others without expecting payment or reward.

A Scout is **friendly**. A Scout is a friend to all. He is a brother to other Scouts. He offers his friendship to people of all races and nations, and respects them even if their beliefs and customs differ from his own.

A Scout is **courteous**. A Scout is polite to everyone regardless of age or position. He knows that using good manners makes it easier for people to get along.

A Scout is **kind**. A Scout knows there is strength in being gentle. He treats others as he wants to be treated. Without good reason, he does not harm or kill any living thing.

A Scout is **obedient**. A Scout follows the rules of his family, school, and troop. He obeys the laws of his community and country. If he thinks these rules and laws are unfair, he tries to have them changed in an orderly manner rather than disobeying them.

A Scout is **cheerful**. A Scout looks for the bright side of life. He cheerfully does tasks that come his way. He tries to make others happy.

A Scout is **thrifty**. A Scout works to pay his way and to help others. He saves for the future. He protects and conserves natural resources. He carefully uses time and property.

A Scout is **brave**. A Scout can face danger although he is afraid. He has the courage to stand for what he thinks is right even if others laugh at him or threaten him.

A Scout is **clean**. A Scout keeps his body and mind fit. He chooses the company of those who live by high standards. He helps keep his home and community clean.

A Scout is **reverent**. A Scout is reverent toward God. He is faithful in his religious duties. He respects the beliefs of others.

Personal Fitness Resources

Scouting Literature

Boy Scout Journal; *Athletics, Backpacking, Canoeing, Cycling, Dentistry, Disabilities Awareness, Family Life, Hiking, Kayaking, Public Health, Rowing, Scuba Diving, Skating, Small-Boat Sailing, Snow Sports, Sports, Swimming, Water Sports, and Whitewater* merit badge pamphlets; *Boy Scout Handbook; Fieldbook*

With your parent or guardian's permission, visit Scouting America's official retail site, **scoutshop.org**, for a complete list of merit badge pamphlets and other helpful Scouting materials and supplies.

Books

Bluth, Karen and Neff, Kristin. *The Self-Compassion workbook for Teens: Mindfulness and Compassion Skills to Overcome Self-Criticism and Embrace Who you are. Instant Help*, 2017.

Branner, Toni. *The Care & Feeding of an Athlete*. Blue Water Press, 2007.

Bushman, Barbara, ed. *ACSM's Complete Guide to Fitness & Health*, 2nd ed. Human Kinetics, 2017.

Chryssikas, Mary Kaye. *Breathe: Yoga for Teens*. DK Children, 2007.

Covey, Sean. *The 6 Most Important Decisions You'll Ever Make: A Guide for Teens*, updated edition, Touchstone, 2017.

Dunham, Kelli. *The Boy's Body Book: Everything You Need to Know for Growing Up YOU*, 5th ed. Applesauce Press, 2019.

_____. *The Girl's Body Book: Everything You Need to Know for Growing Up YOU*, 5th ed. Applesauce Press, 2019.

Greene, Larry, and Russ Pate. *Training Young Distance Runners*, 3rd ed. Human Kinetics, 2014.

Hutchinson, Alex. *Which Comes First, Cardio or Weights?* HarperCollins, 2011.

KidsPeace. *I've Got This Friend Who: Advice for Teens and Their Friends on Alcohol, Drugs, Eating Disorders, Risky Behavior, and More*. Hazelden, 2007.

Kovacs, Mark. *Dynamic Stretching: The Revolutionary New Warm-Up Method to Improve Power, Performance, and Range of Motion*. Ulysses Press, 2021.

Kraemer, William J., and Steven J. Fleck.
Strength Training for Young Athletes,
2nd ed. Human Kinetics, 2004.

Lobster Press, ed. *Let's Clear the Air:
10 Reasons Not to Start Smoking*.
Lobster Press, 2007.

Ratey, John J. *Spark: The Revolutionary
New Science of Exercise and the
Brain*. Little, Brown and Co., 2013.

Resch, Elyse. *The Intuitive Eating
Workbook for Teens: A Non-Diet,
body Positive Approach to Building a
healthy Relationship with Food*.
Instant Help, 2019.

Shanley, Ellen, and Colleen Thompson.
Fueling the Teen Machine, 2nd ed.
Bull Publishing Co., 2010.

Smolen, Jamie. *Hooked*. Casa de
Snapdragon, 2011.

Sumbal, Marni. *Essential Sports
Nutrition: A Guide to Optimal
Performance for Every Active Person*.
Rockridge Press, 2018.

Organizations and Websites

Academy of Nutrition and Dietetics

120 S. Riverside Plaza, Suite 2190
Chicago, IL 60606-6995
Toll-free telephone: 800-877-1600
www.eatright.org

American College of Sports Medicine

401 W. Michigan St.
Indianapolis, IN 46202-3233
Telephone: 317-637-9200
www.acsm.org

Centers for Disease Control and Prevention

Toll-free telephone: 800-232-4636
www.cdc.gov/physicalactivity

The Cooper Institute

Exercise tips and resources
[www.youtube.com/user/
TheCooperInstitute/videos](http://www.youtube.com/user/TheCooperInstitute/videos)

Fitnessgram

Exercise tips and resources
fitnessgram.net/solution

International Food Information Council Foundation

1100 Connecticut Ave. NW, Suite 430
Washington, DC 20036
Telephone: 202-296-6540
foodinsight.org

KidsHealth

kidshealth.org

President's Council on Sports, Fitness & Nutrition

1101 Wootton Parkway, Suite 560
Rockville, MD 20852
Telephone: 240-276-9567
health.gov/pcsfn

Society of Health and Physical Educators (SHAPE America)

PO Box 225, Annapolis
Junction, MD 20701
Toll-free telephone: 800-213-7193
www.shapeamerica.org

U.S. Department of Agriculture

www.myplate.gov

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