

Rep is short for repetition. This means how many times you lift the weight. Set means a group of repetitions. Rest approximately one to two minutes between sets of each exercise, or long enough to catch your breath.

Muscle Groups to Train

Exercising the major muscle groups is important for developing fitness.

- Upper body: front and back of arms, shoulders, chest and upper back.
- Torso: abdominals, sides of torso (obliques) and lower back.
- Legs: front and back of thighs, calves, and buttocks

Exercises

- Upper body: Bicep curls, tricep extension, shoulder press, bench press, and bent-over row.
- Torso: Abdominal curls (hands across chest), "Bird-Dog" (on hands and knees, lift opposite arm and leg 5-10 reps, then opposite arm/leg), and side-plank.
- Legs: Squats or Lunges, and heel raises.

Technique is Important!

- Learn the proper technique for each exercise before proceeding.
- Exercise both sides of the body. Whatever you exercise on the front of the body proceed with the corresponding exercise for the back of the body.
- Breathe! Exhale when the exercise is hardest, and inhale when the exercise is the easiest.
- Move your joints through a full range of motion when performing each exercise.
- Move in a controlled manner. Do not let momentum move the weight.

Posture

- Maintain a straight spine when performing all exercises.
- Do not hyper-extend your spine.
- When picking weights up from the floor (or putting them down), use your legs, not your back.

Using a Spotter

- When lifting very heavy weights, you should use a spotter in case the weights become too much for you to handle.
- A spotter can offer feedback about your technique, and give you a margin of safety to avoid injury.

Important Points to Remember

- Before you buy: Consider the space you have in which to safely engage in a weight training program.
- When you buy: Consider your exercise motivation in terms of the cost of the weights. Consider the size of the handles as they fit in your hand.

- Excellent for fitness: Using free weights is an excellent way to improve your fitness. You can increase the rate at which you burn calories, increase your muscle strength and size, and increase the strength of your bones. Increased strength through weight training can also improve the quality of life for older adults.
- Your abilities: Consider your level of fitness before you purchase your weights. Be careful not to buy weights that are too heavy (or too light).
- Make it a habit: Since you are considering buying exercise equipment, structure your lifestyle to make time to exercise and it will eventually become a life-long habit.

A Complete Physical Activity Program

A well rounded program of physical activity includes aerobic exercise and strength training exercise, but not necessarily in the same session. This blend helps to maintain or improve cardiorespiratory and muscular fitness and overall health and function. Regular physical activity will provide more health benefits than sporadic, high-intensity workouts, so choose exercises you are likely to enjoy and that you can incorporate into your schedule.

ACSM's physical activity recommendations for healthy adults, updated in 2007, recommend at least 30 minutes of moderate-intensity physical activity (working hard enough to break a sweat, but still able to carry on a conversation) five days per week, or 20 minutes of more vigorous activity three days per week. Combinations of moderate- and vigorous-intensity activity can be performed to meet this recommendation. Typical aerobic exercises include walking and running, stair climbing, cycling on a stationary or moving bike, rowing, cross-country skiing, and swimming.

In addition, strength training should be performed a minimum of two days each week, with 8-12 repetitions of 8-10 different exercises that target all major muscle groups. This type of training can be accomplished using body weight, resistance bands, free weights, medicine balls or weight machines.

ACSM grants permission to reproduce this brochure, if it is reproduced in its entirety without alteration. The text may be reproduced in another publication if it is used in its entirety without alteration and the following statement added: Reprinted with permission of the American College of Sports Medicine. Copyright © 2005 American College of Sports Medicine. This brochure is a product of ACSM's Consumer Products Committee.

Prior to beginning any exercise program, including the activities depicted in this brochure, individuals should seek medical evaluation and clearance to engage in activity. Not all exercise programs are suitable for everyone and some programs may in fact result in injury. Activities should be carried out at a pace that is comfortable for the user. Users should discontinue participation in any exercise activity that causes pain or discomfort. In such event, medical consultation should be immediately obtained.

Selecting and Effectively Using

Free Weights



ACSM... Advancing Health through Science, Fitness and Medicine

Staying Active Pays Off!

Those who are physically active tend to live longer, healthier lives. Research shows that even moderate physical activity—such as 30 minutes a day of brisk walking—significantly contributes to longevity. A physically active person with such risk factors as high blood pressure, diabetes or even a smoking habit can get real benefits from regular physical activity as part of daily life.

As many dieters have found, exercise can help you stay on a diet and lose weight. What's more, regular exercise can help lower blood pressure, control blood sugar, improve cholesterol levels and build stronger, denser bones.

The First Step

Before you begin an exercise program, take a fitness test, or substantially increase your level of activity, make sure to answer the following questions. This physical activity readiness questionnaire (PAR-Q) will help determine your suitability for beginning an exercise routine or program.

- Has your doctor ever said that you have a heart condition or that you should participate in physical activity only as recommended by a doctor?
- Do you feel pain in your chest during physical activity?
- In the past month, have you had chest pain when you were not doing physical activity?
- Do you lose your balance because of dizziness? Do you ever lose consciousness?
- Do you have a bone or joint problem that could be made worse by a change in your physical activity?
- Is your doctor currently prescribing drugs for your blood pressure or a heart condition?
- Do you know of any reason you should not participate in physical activity?

If you answered yes to one or more questions, if you are over 40 years of age and have been inactive, or if you are concerned about your health, consult a physician before taking a fitness test or substantially increasing your physical activity. If you answered no to each question, then it's likely that you can safely begin fitness testing and training.

Selecting Free Weights

Using free weights as part of an exercise program can be a safe and effective means of improving strength and fitness for all ages and fitness levels, for men and women.

They provide a stimulus for muscle-fitness development, which can increase the amount of calories you burn (body fat reduction), increase muscle size, enhance muscle strength, power, and endurance, and increase strength of bones. Increased muscle strength can also have a positive impact on quality of life for older adults.

It is important to realize that some instruction is necessary if you have never used free weights before, or are not that familiar with the use of free weights. Technique, safety precautions, and the exercises that can be performed with free weights are the most important considerations.

Free weights come in two basic types:

- Barbell: Long bars (4-6 ft.) with weights attached or slots to add weight plates.
- Dumbbell: Smaller, single hand-held weights.

Free weights, and more specifically dumbbells, come in more varieties and are easier to use. Dumbbells come in chrome, unfinished metal, plastic, thin foam covering, and concrete. They can be purchased in weight increments of five pounds ranging in weight from five to 150 pounds each.

The handles on free weights are important because they provide friction for a better grip. The size of the handle in relation to your own weight is also an important consideration. The handle should feel comfortable in your hand and should not cause undue muscle fatigue when lifting the weights. It is important to practice some exercises with the weights before purchasing a set.

An important first step in the purchase process is to decide on the correct amount of weight for your strength and strength development. The salesperson or exercise professional should be able to help you.

Safety

- The term "free weight" means the equipment will not restrict movement. Thus, the use of barbells and dumbbells requires more muscular coordination than machines. Because movement is not restricted, the risk of injury is higher than with machines. Precautions must be taken when using free weights. Specifically, ensure you have a good grip, maintain a stable position sitting or standing, use good technique or form, and solicit proper instruction from an exercise professional.
- When picking weights up off the floor (or putting them down), lift with your legs, not your back.
- Most accidents occur when a weight falls on a body part. This happens when a weight plate is not secure on a bar or when a dumbbell falls out of a person's hand.

- Consider how you intend to use the weights. If you are using the weights for general fitness, you probably do not need a partner to spot for you. If you are buying free weights to increase muscle size, therefore lifting heavy weights, find a training partner to spot you.
- Do not attempt to lift too much weight.
- Consider your children and/or pets and potential safety hazards when storing or not using your free weights.

Maintenance and Durability

- Warranty—Ask the sales representative if the set comes with a warranty.
- Durability—Consider your exercise motivation for the quality and durability of the weights you are purchasing. If you plan to use the weights a lot, buy a high quality and durable product. Generally speaking, free weights are rather durable.
- Assembly—Consider the time and convenience of buying weights that are a set at a specific weight, or to purchase weights that can be changed according to your strength. For a set of dumbbells, no assembly is required.
- Storage—Ensure you have adequate space to safely store the weights, depending on how many or how much weight you are going to purchase. Free weights can be stored on the floor or on specialized racks.
- Maintenance—Consider the maintenance requirements. Chrome weights require higher maintenance than metal, concrete or foam-covered weights.

Power, Performance, and Operation

Performance of free weights: The performance of free weights is dependent on the amount of use they receive, the care taken when putting them down or placing them back on a rack, and maintenance. The better you care for the weights, the better performance you get from your purchase.

User-Friendliness: Free weights are perhaps the most user-friendly type of exercise equipment a person can buy. The key to being user-friendly is the confidence a person has with the knowledge of the exercises that can be performed. The more knowledgeable you are about the exercises you can perform, the more you will get out of your purchase. Consult with a certified personal trainer to learn more about techniques and exercises that are right for you.

Using Free Weights

Free weights can develop muscle-fitness depending on how you use them.

- Muscle Strength: 5-8 reps, 1-3 sets
- Muscle Endurance: 15-20 reps, 1-3 sets
- Muscle Power: 3-5 reps, 1-3 sets