

The Importance and Benefits of Physical Activity

It has been firmly established that individuals who engage in some form of physical activity, either by lifestyle or occupation, are likely to live longer and healthier lives. Research shows that even moderate caloric expenditure from physical activity has a significant impact on longevity. A physically active person who possesses such risk factors as hypertension, diabetes and even a smoking habit can derive significant gains from incorporating regular physical activity into his/her daily activities. Regular physical activity is also likely to help modify a number of risk factors. As an adjunct to weight loss, exercise is likely to help you stay on a diet and lose weight. Additionally, regular exercise is associated with reduction in blood pressure, improved glucose regulation, promotion of better lipid profiles, and stronger/denser bones.

The First Step!

Before you begin an exercise program, take a fitness test, or substantially increase your level of activity, answer the questions below. 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 and that you should only participate in physical activity 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, or 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 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, you have reasonable assurance of your suitability for 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 set at a specific weight, or to purchase weights that can be changed according to your strength. For a set weight 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.

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 the 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

There are three principal components to a rounded program of physical activity: aerobic exercise, strength training exercise, and flexibility training. It is not essential that all three components be performed during the same workout session. Try to create a pattern that fits into your schedule and one to which you can adhere. Commitment to a regular physical activity program is more important than intensity of the workouts. Therefore, choose exercises you believe you are likely to pursue and enjoy. ACSM's Position Stand "The Recommended Quantity and Quality of Exercise for Healthy Adults" ©1998 states that aerobic training should be performed three to five days per week with a minimum of 20 minutes per day. Remember, if your schedule is tight, it is better to exercise for a shorter period of time than not at all. Typical forms of aerobic exercise are walking and running (treadmills), stair climbing, bicycling (bicycle ergometers), rowing, cross-country skiing, and swimming. Many devices offer a combination of these motions. For general purposes, strength training should be done two to three times per week. Strength training is performed with free weights or weight machines. For the purposes of general training, two to three upper body and lower body exercises should be done. Additionally, abdominal exercises are an important part of strength training. Flexibility training is important and frequently neglected, resulting in increased tightness as we age and become less active. Stretching is most safely done with sustained gradual movements lasting a minimum of 15 seconds per stretch. At a minimum, strive to stretch every day.

Selecting and Effectively Using Free Weights



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