Fitness

Purpose of fitness, terminology and safety

Physical fitness is just one key component of overall health fitness. It

is important to participate in physical fitness activities in order to keep your

body healthy. In this unit we will cover a variety of physical fitness compon-

ents. The topics that we will discuss and participate in are strength training,

cardiovascular conditioning and flexibility.

The purpose of strength training is to increase the body’s overall strength

and fitness. Strength training utilizes the muscles in the body to help build lean

muscle mass and decrease body fat. During exercise, muscle fibers become

thicker and are able to do more work. Eventually with the repeated same amount

of exercise, the muscles reach a limit. For muscles to keep getting stronger, it is

necessary that you gradually increase how often or how long you use a particular

muscle group.

The purpose of flexibility includes the following: reduced potential

for injury, improved performance, reduced soreness and lower back pain,

increased blood flow to the body, improved coordination, keeps you active

and mobile as you age and it feels good. The benefits of this unit are to

access your own physical fitness; learn proper techniques of strength training,

aerobic and anaerobic conditioning, increase foot speed and agility, increase

your heart rate, build lean body mass, decrease body fat and gain a better

understanding of personal physical fitness.

Muscles

|  |  |  |
| --- | --- | --- |
| Abdominals-stomach | Gastrocnemius – calf | Latissimus dorsi – upper back |
| Biceps – front of upper arm | Gluteus maximus - buttock | Pectorals - chest |
| Triceps – back of upper arm | Hamstrings – back of thigh | Obliques – side of abdominals |
| Deltoids - shoulder | Quadriceps – front of thigh |  |

**FITNESS TERMS**

Resting Heart Rate: taken first thing in the morning.

Maximum Heart Rate: 220 minus your age (ex. 220 – 14 = 206)

Target Heart Rate: Maximum Heart Rate (220 – age) x (60% - 80%) = Target Heart Rate

Maximum Weight Lift: The most weight you can lift in one repetition.

Working Weight: Maximum weight times .70

Cool Down: Brief, mild exercise done after vigorous exercise to help you recover.

Repetitions: Number of times an exercise is done.

Set: A group of several repetitions

Anaerobic Endurance: Without oxygen, physical activity of a short duration that requires a high rate of energy.

Muscle Endurance: Ability to perform repeated muscle movements for a given period of time, how long muscles work.

Physical Fitness: The ability to carry out daily tasks with vigor and to engage in leisure time pursuits and to meet the above average physical stresses encountered in emergency situations.

Strength: How strong muscles are.

Flexibility: How far muscles will stretch.

Cardiovascular Endurance: How much oxygen the body can supply to working muscles.

Agility: The ability of a person to change direction or body position quickly and control the movement of the entire body.

Balance: The ability to maintain a desired position of the body, both in movement and in stationary positions.

Coordination: The ability to integrate muscle motions into an efficient pattern of movement.

Power: The ability to release maximum force or to contract the muscles in the shortest possible time.

Overload: A person needs to do more than would normally be done to improve fitness.

Progression: A person needs to start exercising slowly and to increase the amount of exercise done over a period of time.

Isotonic: Muscle contractions with movement, weight training.

Isometric: Muscle contractions with little or no movement, ex. Pushing against a wall.

Intensity: How hard an activity is conducted.

Duration: How long an activity is conducted.

Why should we stretch? It tones our body and relaxes you.

How to stretch: Be relaxed, have your attention focused on the muscles being stretched.

Easy Stretch: 10 to 30 seconds and make sure you keep breathing.

General Lifting Guidelines

1. Practice all techniques with a very light weight before attempting heavier resistance.

2. Know how to use the correct grip for each exercise.

3. Communicate with your spotter. Make sure you understand each other’s verbal and nonverbal commands.

4. Keep your back straight at all times, whether you are lying down or standing.

5. When performing standing lifts, be sure to have a wide, stable base with your feet flat on the floor.

6. When lifting objects from the floor, use your legs, not your back.

7. Keep the weight close to your body.

8. All lifts should be done through a full range of motion. This means that muscles should be flexed and extended completely when you lift.

9. Concentrate on the muscles that should be doing the work.

10. Breathe out (exhale) during the exertion (concentric) phase.

11. Breathe in (inhale) during the relaxing (eccentric) phase.

12. Never hold your breath, as this can reducer the flow of blood and oxygen to your brain. A lack of oxygen can cause you to pass out while you are lifting.

13. Do not hyperventilate (breathe rapidly). Control your breathing at all times.

1. Make sure you keep your hands on the bar and maintain pressure until all weights are put safely back on the racks.

Weight-lifting Safety

1. Have a partner when lifting free weights.
2. Make sure you are familiar with the proper use of all weight equipment prior to using it. Also be familiar with the weight-training area.
3. A brief heart and muscle warm-up combined with specific stretching may be helpful.
4. Never hold your breath. Exhale during the concentric (positive) stage. This can prevent dizziness or fainting.
5. Never sacrifice proper technique to lift extra weight. Cheating can lead to injury.
6. Wear safety belts when doing heavy exercises that require the use of abdominal and back muscles.
7. Use collars for all free weights.
8. Control the speed of the weights at all times.
9. Progress slowly over a period of time.
10. Allow for rest between training days (usually (forty-eight hours)
11. Return all equipment to its proper place after using it.
12. Be alert at all times!!
13. Act responsibly. The weight- lifting area is no place for irresponsible behavior.