

INTRODUCTION TO GROUP FITNESS/ STRENGTH TRAINING

FIVE AREAS OF HEALTH-RELATED FITNESS

Body composition – The relative percentage of muscle, fat, bone, and other tissues of which the body is composed.

Cardiovascular endurance (aerobic fitness) – The ability of the cardiovascular/ cardiopulmonary system (heart, lungs, blood vessels) to deliver blood and, by doing so, oxygen to the working muscles during sustained exercise.

Muscular endurance – The ability of a muscle or muscle group to maintain a continuous contraction over a period of time.

Flexibility – The range of motion a joint will allow.

Muscular Strength – The amount of force that can be exerted by a muscle or muscle group in one maximum effort.

PRINCIPLES OF TRAINING

All-or-None – A muscle fiber contracts totally or not at all. Overload must occur each workout to recruit new fibers.

Overload – Putting more stress on a muscle than previously experienced.

Progression – Gradually overloading the muscle over an extended period of time.

Specificity – Training in a specific manner to achieve desired results. This would involve incorporating specific exercises to strengthen the muscle group used in the specific sport or activity.

THE PERFECT REP

Range of Motion – Perform each rep through the range of motion.

Speed of motion – The repetition should be performed at a controlled, steady speed through the concentric and eccentric phase. A perfect rep takes 6 seconds – 2 seconds to perform the concentric phase and 4 seconds to perform the eccentric phase.

TERMS

Atrophy – Decrease in muscle size.

Concentric (positive) phase – The raising phase of a lift in which the muscle shortens.

Eccentric (negative) phase – The lowering phase of a lift in which the muscle lengthens.

Frequency – The number of times per week a workout is performed.

Hypertrophy – An increase in muscle size.

Intensity – The amount of stress put on a muscle during a particular workout.

Load – The amount of weight being lifted. Includes the bar, plates, and collars.

Time – The length of a workout.

Type – Major component of fitness being exercised.

Power – A combination of strength and speed. The speed at which muscular force can be applied.

Protocol – The specific overload system used on a particular exercise (i.e., 3 strikes, 50% set, progressions, 1^{1/4})

Repetitions (reps) – The performance of an exercise, through a full range of motion, one time.

Rest – The amount of time between workouts (or between sets).

Set – A group of repetitions.

Strength – The amount of force a muscle or muscle group can exert in one all-out effort.

Strength training – An organized system of resistance exercises which is a part of an individual's overall training program. The goal is to increase performance capabilities and to reduce injury risks.

Volume – The amount of sets and reps done in a specific workout (how many, not how much).



EQUIPMENT

Collars – Protective locks used to secure the weight plates on the bar. Okie (orange) collars weigh 2^{1/2} lbs. each. Ivanko collars weigh 5 lbs. each.

Dumbbells – Hand-held weights ranging from 3 to 85 lbs.

Iso-Lateral – (Hammer equipment) Each lever works independently.

Olympic Bar – The bar used at the bench, incline, and upright row stations. There are two different sizes – 45 lbs. and 30 lbs.

Plate Mates – 1^{1/4} lb magnets used to make small increases in weight.

Plate tree – The stand upon which the weight plates are organized. Plates should always be placed on a tree after being taken off the bar.

Weight plates – The weights which are put onto a machine or bar. Plates weigh 2^{1/2}, 5, 10, 25, 35, 45, and 100 lbs.





WEIGHT ROOM RULES

- 1. Begin every workout with a proper warm-up.**
- 2. Encourage others to work hard.**
- 3. Never miss a workout.**
Consistency is a key!
- 4. Give great attention to form.**
Proper technique is the key to gaining strength safely.
- 5. Always have a goal.**
Set your goals high, then work to achieve them.
- 6. Leave the strength room neat.**
Please put plates on the weight tree properly.
- 7. Safety is a must.**
Always have a spotter.

Use collars on every lift.

LIFTER RESPONSIBILITIES

1. Know the proper use of all equipment and how to adjust it properly.
2. Dress appropriately – shoes are a must.
3. Warm up before lifting.
4. Always have a spotter.
5. Use correct lifting form – be a “reptologist.”
6. Know your limits. Do not attempt to lift beyond your present capabilities.
7. Stay with the bar on a missed attempt.
8. Do not drop the weights.
9. Know what protocol you are performing.
10. After lifting – strip the bar or machine – put plates on a weight tree.

SPOTTER RESPONSIBILITIES

1. Move all loose plates, barbells, and dumbbells away from lifting area.
2. Know the proper spotting techniques for each specific exercise.
3. Make sure it's a weight you can properly spot.
4. Be sure the bar is properly loaded – check to make sure collars are on tight.
5. Know what protocol the lifter is attempting. Plan beforehand if partner-assisted or manual resistance reps will be done after the last set.
6. Spot with a balanced, solid stance.
7. Use two hands to spot.
8. Encourage your partner to work hard.
9. Watch your partner's form – be a coach.
10. Know when, and how much, lifting assistance is needed to complete the exercise. Help your partner safely rack the bar at the end of each set.

SPOTTERS ARE REQUIRED ON ALL LIFTS!