

### BASIC PRINCIPLES OF STRENGTH TRAINING

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specificity

overload

progressive overload

# SPECIFICITY

Specificity states that the body makes gains from exercise according to how the body exercises.

- We've all heard the phrase, "practice makes perfect." Well, this is the principle of specificity in action. This principle simply states that exercising a certain body part or component of the body primarily develops that part. The principle of specificity implies that to become better at a particular exercise or skill, you must perform that exercise or skill.
- The Principle of Specificity is that when you train with weights your body's natural mechanisms automatically respond to make your muscles stronger. Muscles increase in size called hypertrophy. The body's adaptations will occur to the same muscles and systems targeted in the exercises. Whatever exercise you do, your body will adapt accordingly.

## EXAMPLES OF SPECIFICITY

If your training goal is general fitness with a focus on improving posture, emphasize

strengthening the extensor muscles in the upper back and shoulders while increasing flexibility in the front of the shoulders and chest If your training goal is to improve rebounding in basketball, emphasize explosive exercises, such as power cleans and speed squats to increase your vertical jump

If your training goal is improving stability for downhill running in cross country, add strengthening exercises for joint stability in the lower body, such as squats, lunges, or other weight bearing exercises.

### THE OVERLOAD PRINCIPLES

Overload refers to the amount of load or resistance, providing a greater stress, or load, on the body than it is normally accustomed to in order to increase fitness. Overloading really has to do with how much weight you lift when you're strength training.

Everything you lift is considered overloading your muscles. In fact, you may not need any weight for some exercises to get that training effect. Sometimes just body weight may be enough to tax your muscles.

Essentially, that means it almost doesn't matter how much weight you lift because anything is more than what you were doing.

### PROGRESSIVE OVERLOAD

 PROGRESSIVE OVERLOAD IS THE WAY IN WHICH AN INDIVIDUAL SHOULD INCREASE THE LOAD. IT INVOLVES MANIPULATION OF THE NUMBER OF REPETITIONS (REPS), SETS, TEMPO, **EXERCISES** AND FORCE TO OVERLOAD A GROUP OF MUSCLES AND PRODUCE THE DESIRED CHANGE IN **STRENGTH**, ENDURANCE, SIZE OR SHAPE.
THIS CHALLENGES YOUR BODY AND ALLOWS YOUR MUSCULOSKELETAL SYSTEM TO GET STRONGER. REST AND RECOVERY MUST ALSO BE INCLUDED IN THE PROGRESSION, AS TRAINING HARD ALL THE TIME COULD RESULT IN CHRONIC FATIGUE, A DECREASE IN PERFORMANCE AND EVENTUALLY INJURY.

## **METHODS OF PROGRESSIVE OVERLOAD** Weight/ Resistance

- Although there's no exact weight range for every person, there are some general suggestions you can follow
- Focus on form first, then weight. Align your body correctly and move smoothly through each exercise. Poor form can prompt injuries and slow gains. When learning a strength training routine, many experts suggest starting with **no weight = Body Weight.** Concentrate on slow, smooth lifts and equally controlled descents while isolating a muscle group.

- Pick the heaviest weight where you can do one rep with good form, and then back down from there to a weight about 60-70% of the heaviest one you can lift.
- If after a few repetitions you feel the weight is too heavy or too light, feel free to adjust as needed.
- The moment when all of your reps feel completely manageable with good form is the optimal time to shift to a heavier weight so you can avoid a strength plateau.

## OVERLOAD

#### Choose Your Sets

- Again, the sets you do are generally based on your goals but, like your reps, you can easily change the number of sets you're doing in order to mix things up and add intensity. These are the general set ranges recommended for different goals:
- For general fitness 1-2 sets
- For more endurance 2-3 sets
- For muscle mass 3-6 sets
- For strength 2-6 sets

#### Choose Your Reps

- The number of reps you do depends on your goals. But, changing the reps you do can help keep your muscles working in different ways. If you usually do 15 reps, for example, dropping those reps down to 10 and increasing the weight you're using changes that exercise. These are the rep ranges that correspond to the most common goals:
- For general fitness: 8-15 reps
- For muscular endurance and stability: 12 or more reps
- For muscle gain (hypertrophy): 6-12 reps
- For maximal strength and/or power: 6 or fewer reps

## **OVERLOAD**

#### **Increase Training Frequency**

**Training frequency** is **how often** you work out per week. Most **strength training** programs involve a **training frequency** of 3 to 5 times per week, depending on your strength goals.

**Rest and Recovery:** Rest days are just as important as workout days. It is during these rest periods that your muscles grow and change, so make sure you're not working the same muscle groups two days in a row.



