

# Be Well Intro to Weight Training

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## Important Terms

### Muscular endurance:

- The ability of muscles to exert submax force in a sustained or repetitive effort.
- You can develop muscle endurance through training, but a program for developing muscle endurance would be somewhat different from one focused on developing strength or hypertrophy.

### Muscular strength:

- The ability of muscles to exercise force against resistance in a single effort, for example, the maximum amount of weight you can lift or push.
- Muscle strength depends on the muscle fiber size, nervous system function, and other factors.

### Body composition:

- The relative amounts of fat, muscle, bone, and other components contributing to total body weight.
- Body composition is often expressed as percent **body fat**.
- Too little or too much body fat can negatively affect health.
- A certain amount of body fat is necessary for the body to function. This so-called *essential fat* is found in cells, nerves, bone marrow, and certain organs; it makes up about 3%–5% of total body weight in men and 8%–12% of total body weight in women. Too little body fat is associated with loss of bone mass, nutritional problems, and, in women, reproductive disorders.

### Atrophy:

- Muscles decrease in size
- Can be due to age, decreases in metabolism, injury, or illness

### Hypertrophy:

- The growth and increase of the size of **muscle** cells.
- The most common type of **muscular hypertrophy** occurs as a result of physical exercise such as weightlifting, and the term is often associated with weight training.

### Sets and Reps:

- Reps is short for repetitions and is the number of times you perform an exercise, with an up & down being one rep.

- Sets is a group of a number of reps before you rest.

**Concentric:**

- The shortening phase of a muscle contraction; the generation of force to move an object.

**Eccentric:**

- The lengthening phase of a muscle contraction.
- Also called a negative contraction.

**Isometric:**

- Muscle contraction with no movement.

**Isotonic:**

- Muscle contraction with movement or a dynamic contraction

**Overload:**

- Demands must increase progressively over time to cause adaptation

### **The Basics AKA Frequently Asked Questions**

**Why do regular weight training?**

- When you lift weights, you build lean muscle tissue which is more metabolically active than fat. This affects body composition by a reduction in body fat by percentage (more muscle means the same amount of fat would still be a lower percentage.)
- By increasing your muscle tissue, you increase your metabolism. This mean you burn more calories throughout the day with everything you do (including sleeping!) Over time, this can result in a reduction of body fat.
- Regular strength training is just as important as cardio exercise for losing fat and getting fitter.
- Weight training also helps you prevent injuries and bone loss through increased bone density. The pull of the muscles on your bones causes a good stress that stimulates positive bone cell growth.

**How often should I lift weights?**

- 2 to 3 days per week if you are working all major muscle groups in one workout

How many repetitions and how many sets?

- Generally, you want to complete 2-3 sets of 8-12 repetitions of each exercise for strength & power or 10-15 repetitions for more focus on endurance
- You can do more sets, including a warm-up set with more weight, if time and motivation permit

How fast should I lift the weight?

- You should be in control of the weight, not gravity or momentum.
- I recommend you lift in a 2-1-4 (counts, not seconds), meaning lift the weight against gravity for a count of at least 2, hold 1 (to prevent bouncing out and give time for a brief “squeeze” in the contracted state), then return (fighting gravity) for at least 4 counts.
- Some exercises are a 4-1-2 pattern because the work against gravity occurs in the initial phase. An example would be a squat or lunge.

How much rest between sets?

- 30 seconds at a minimum, with no more than 3 minutes to continue the overload on the muscle.

When to breathe?

- The key point is not to hold your breath!
- It's best to exhale with the exertion or the lifting of the weight and inhale and the return or lowering of the weight.

How do you know when to increase the weight?

- When you can complete your 2<sup>nd</sup> or 3<sup>rd</sup> set without much effort or
- when you can complete 15 repetitions in your final set without fatiguing
- increase the weight by 2-10%

How many exercises should I do?

- At least one exercise for each major muscle group, so 8-10 exercises

How much rest between workouts on the same muscle group?

- At least 48 hours
- Some muscle soreness is normal 24-48 hours after your workout. Don't worry! Just do some cardiovascular exercise or another weight workout to pump/flush it out and start again.
- Be sure you are experiencing delayed onset muscle soreness, not pain.

<b>Exercise</b>	<b>Weight</b>	<b>Reps</b>	<b>Sets</b>	<b>Notes</b>
Lat Pulldown				
Back Row				
Chest Press				
Chest Flies				
Side Shoulder Raise				
Bicep Curl				
Tricep Extension				
Dumbbell Squat				
Dumbbell Lunge				
Ball Hamstring Curl				
Standing Calf Raise				
Ab Crunch				
Ab Cross Crunch				
Back Extension				