

# The Basics to Beginning an Exercise Routine: Resistance Exercise



## Getting Started

Resistance training, also called strength or weight training, is done to improve your muscular fitness. It increases muscle strength, size, and/or endurance by making your muscles work against weight or force. Resistance training should make activities of daily living less stressful physiologically and can effectively help manage, and even prevent, chronic diseases. Resistance training is important for everyone, but it's importance increases with age! *Examples: Free weights, weight machines, resistance bands, body weight, etc.*

## Resistance Training Prescription for Adults

It is recommended that you perform 2-4 sets of 8-12 reps of resistance training exercises for each major muscle group (chest, shoulders, upper and lower back, abdomen, hips, and legs). You should aim to do this 2-3 days a week with at least 48 hours separating the exercise training sessions for the same muscle group. Depending on your schedule and training routine, you may choose to train all muscle groups in the same training session, or you may choose to do a "split" routine to focus on specific body parts on different days, such as two lower body and two upper body training days.

## Helpful Definitions

- Repetitions (reps) - This is the number of times you continuously repeat each exercise in a set. Your repetitions should be inversely related with the intensity or load being lifted.
- Sets - This is a group of repetitions performed without resting, e.g., I completed 3 sets of 15 body weight squats with a 90 second rest between each set.
- X-RM (# Repetition Maximum) - X is the number of times a certain weight can be lifted before the muscle fatigues. RM is the maximum number of repetitions that can be completed with a given resistance or weight. For example, 5-RM means that a person can lift a specific weight five times before the muscle fatigues and they cannot continue.
- Multi-joint exercises - These exercises affect more than one muscle group at a time, such as squats, bench press, dips, and pull-ups. It is recommended to focus on multi-joint exercises in your training routine.

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- Single-joint exercises - These exercises affect only one muscle group, such as leg extension, leg curl, bicep curl, and triceps extension. You may also include single-joint exercises in your training routine, but it is typically recommended to do so after performing multi-joint exercises.
- Progressive overload principle - In order to continue gaining benefits after your body adapts to starting a new resistance training routine, you must push yourself to make your resistance training exercises harder to the point where it's very difficult to complete one more rep. As a quick tip, once completing 12 reps is no longer challenging, it's time to increase the weight.

### Training goal

Whether your goal is to maintain overall health, improve your running performance, or be able to lift a specific weight, it's important to consider the following resistance training goal chart:

Type	Intensity (% 1-RM)	Reps	Sets	Recovery
General Fitness	65-80%	8-15	1-4	1 - 3 min
Maximum Strength	≥80%	≤6	2-6	90 sec - 5 min
Power	75-90%	1-5	3-5	2 - 5 min
Hypertrophy (muscle size)	67-85%	6-12	3-6	30 - 90 sec
Muscular Endurance	≤67%	≥12	2-3	<30 sec

### How Do I Build a Training Routine?

Use FITT-VP to build your resistance training routine

- F - Frequency: Are you training each major muscle group two or more days each week?
- I - Intensity: What is the weight/load being moved for each exercise?
- T - Time: How many sets and repetitions are you performing, and how long are you resting between sets?
- T - Type: Do the exercises focus on each major muscle group and do they help meet your resistance training goal?
- V - Volume (product of load, sets, and reps): How much total work is being done for each muscle group?
- P - Progression: Are you adjusting resistance, repetitions, sets, and/or increasing frequency to progress as you become accustomed to your routine? Do not sacrifice form to lift heavier weights!
  - Example: In order to improve my general fitness, I will do 3 sets of 10 reps of 8 resistance training exercises 2 times a week. Once I notice that completing 10 reps is no longer challenging, I will move to 12 reps. Once completing 12 reps is no longer challenging, I will increase my weight and aim for 8-10 reps.

### Resources:

<https://www.betterhealth.vic.gov.au/health/healthyliving/resistance-training-health-benefits>  
[ACSM Guidelines for Exercise Testing and Prescription, Ninth Edition](#)