

How Long Should You Rest Between Sets?

As a personal trainer, I'm often asked, "How much time should I rest between sets?" My answer always depends on someone's goal.

Thank you for tuning in to my channel My name is Patrick Amadeu and I release valuable content to help people who are unhappy, unhealthy, tired all the time, who are struggling with their weight and physique and because of all that they're struggling with their confidence and maybe even with their relationship!

So if you can relate to any of that and you're looking to crush it be sure to subscribe to my channel so you never miss new content.

Now let's get started with today's show which happens to be episode nr 3!

Back to the question 'How much time should I rest between sets'

In its book "Essentials of Strength Training & Conditioning," the National Strength & Conditioning Association recommends the following:

- To increase strength and power, the best rest period is 2-5 minutes between sets.
- To increase hypertrophy (muscle growth), the best rest period is 30-90 seconds between sets.
- To increase muscular endurance, the best rest period is 30 seconds or less between sets.

These rest periods are based on how the body produces the energy to perform work during training. Specifically, the body uses three different energy systems at all times; however, the amount of each energy system's contribution depends on the intensity and the duration of the event.

Which Energy Systems Power Your Workout?

The Phosphagen System

For strength activities such as a one-rep-max (1RM) deadlift or bench press, the phosphagen system contributes most of the energy. It provides ATP (adenosine triphosphate), used to power muscular activity for short-duration activities lasting up to 30 seconds.

A phosphagen is an energy-storing compound like creatine phosphate or ATP. Phosphagens are depleted during high-intensity exercise like weightlifting and sprinting. Complete ATP resynthesis occurs within 3-5 minutes—hence the suggestion that strength and power athletes rest that long between sets.

The Glycolytic System

Work past 30 seconds and up to 2 minutes, and you're using the glycolytic energy system. It involves the breakdown of glycogen, which is stored glucose, or glucose in the blood to resynthesize ATP.

There are about 300-400 grams of glycogen in the body's muscle and 70-100 grams in the liver, but these numbers can be increased via strength training, aerobic training, and a nutritious diet. Weight training typically happens in a rep range and with an intensity that enlists the phosphagen and glycolysis systems. Performing 8-12 reps at 60-85 percent of 1RM, you can deplete your glycogen, stimulate growth, and refeed your muscles immediately.

The Oxidative System

At 2-3 minutes of work, you'll still be using the glycolysis system but will start to call on more of the oxidative, or aerobic, system. The oxidative system uses carbohydrates, fats, and, as a last resort, protein for energy.

Muscular endurance training can involve sets that last 2-3 minutes; for example, a set of 30 bodyweight squats or lunges may take 2 minutes to complete. Three sets of an exercise done for 20-30 reps will tap both the glycolysis and oxidative systems. During muscular endurance training with weights or just body weight, you'll rest 30 seconds or less between sets.

Activities longer than 3 minutes, like going for a 1-mile run, primarily use the oxidative system. When performing such low-intensity training, you'll need to make sure that your electrolytes, hydration, and food intake are on point because it's a race against time before you get completely fatigued. During long, steady-state cardio workouts at low intensity, rest periods are typically taken as needed.

Recent research on the effect of rest interval length on strength and muscle recovery suggests, generally, that more rest is better. You find the links to those studies and a transcript of this post below.

Now, I hope that helps, I talk to you soon and bye for now!