

Cardio When?

Should you do cardio before or after your strength training

By Yuri Elkaim, BPHE, CK, RHN

Have you ever wondered whether you should do your cardio before or after your strength training workout? The answer depends on your goals.

You need to look in the mirror and clearly distinguish whether your goal is to lose weight (fat) or build strength. If you're somewhere in between, then the specifics of this article are less important. Let's look at each case individually:

Building Muscular Strength

If your goal is to develop more muscular strength then you need to do your cardio AFTER your strength-training workout. Why?

Because, aside from doing a light cardio warm-up, excessive (or high intensity) cardio before lifting weights depletes your glycogen (energy) stores. As a result, you will have less fuel in the tank for your resistance training exercises and thus will experience sub-par strength workouts simply because you won't be able to push as much weight!

Just think of the last time you did an intense cardio workout. Did you feel like throwing around some heavy weights afterwards? Most likely not.

Fat Loss

If your goal is to lose fat,

however, you may increase your ability to burn fat during any given workout by doing intense cardio BEFORE your strength-training workout.

Why?

First, doing cardio at a moderate to high intensity elicits a greater degree of lipolysis (fat breakdown). By stimulating lipolysis, your body has more fatty acids at its disposal and



is therefore more inclined to use fat as a fuel during the subsequent strength-training workout.

Research has shown that a greater fat loss benefit can be expected if periods of higher intensity cardio are performed during the early phase of the workout. A 2003 study in the *European Journal of Applied Physiology* showed that fat oxidation was higher in a workout that was initiated with a short bout of high intensity cardio.

The second benefit of doing higher intensity cardio before strength-training (for fat loss purposes) is that it produces greater than normal cardiorespiratory and metabolic responses, such as increased post-exercise oxygen consumption (EPOC).

EPOC is a measure of "passive caloric expenditure" that occurs after your workout as your body attempts to re-establish

homeostasis. This increase may be due to a greater increase in body temperature and circulating hormones, both of which will increase fat burning after your workout.

More good news - your body also prefers fat as a fuel source during the post-workout stage, as it needs this energy to replenish glycogen (carbohydrate) stores that were depleted during the workout.

So even if you can't lift as much weight during your subse-

quent strength training session, don't worry. The goal with fat loss is not to lift maximum weight, but rather to elevate your body's metabolism by maintaining an elevated heart rate for more of your workout.

Fat Loss and Strength Training Can Be Similar

Want to lose fat? Then, begin with a 5-10 minute bout of high intensity cardio (notice how I've used "intense" cardio) before your strength training routine that should incorporate full body exercises using weights that will only allow 6-8 reps!

Want to build strength? Do the exact same thing but simply move your intense cardio after your strength training.

You see, when it comes to the strength-training component of your workout, regardless of whether you want to burn fat or build strength, using heavier weights and lower repetitions (6-8 reps) is the key to success! So put away those low weight, high rep aerobics videos! **IFM**

References:

Kang, J. et al (2003). Effect of order of exercise intensity upon cardiorespiratory, metabolic, and perceptual responses during exercise of mixed intensity. *Eur J Appl Physiol*, 90: 569-574.

Yuri Elkaim

is a fitness, nutrition and fat loss expert. Check out his Treadmill interval training running series at www.myTreadmillTrainer.com