

SECTION 5: FLEXIBILITY AND CARDIO

Here are some basic guidelines regarding flexibility and cardio training.

FLEXIBILITY

Why should you stretch?

- Allows greater freedom of movement and improved posture.
- Releases muscle tension and soreness – stretching after workouts may help decrease your soreness.
- Reduces risk of injury and low back pain. Often hamstring tightness is the cause of low back pain.

Everyone has a different level of flexibility, possibly due to:

- Genetics—you are often either born flexible or not.
- Gender—women tend to be more flexible.
- Level of physical activity—increased activity, including strength training, helps increase flexibility.
(My favorite flexibility myth is that muscle bound people automatically become less flexible. Nothing could be further from the truth: A study of Olympic athletes in 1976 found that the US Olympic Powerlifting team tested second in flexibility only to gymnasts in joint range of motion testing. Besides, check out this guy: http://www.youtube.com/watch?v=4MiVami_344)

The dos and don'ts of stretching for strength training

I make the distinction of “strength training” because there may be some benefit to ballistic stretching in sports-specific purposes, such as martial arts—however, I personally do not ever recommend such stretches. There is no good reason to bounce around like a pinball when stretching in a weight room.

Opinions vary, but the latest research indicates you should not stretch before weight training for various reasons. The most important reason is that if you stretch too much prior to strength training, you may push outside your normal range of motion when lifting weights, because stretching often dulls pain receptors in your muscles.

Do:

- ...a cardio and/or active warmup before stretching. Your muscles need to warm up and have blood flowing to them for adequate and safe stretching to take place. The best time to stretch is after your workout. Warming up in a hot shower or a sauna are no substitute for cardio warm-ups. Think of your muscles as plastic: Warm plastic stretches and maintains its shape, but cold plastic will resist and possibly tear.
- ...start each stretch slowly, exhaling as you gently stretch the muscle.
- ...hold each stretch for at least 10 to 30 seconds.
- ...stretch every major muscle group.

Don't

- ...bounce while stretching. Holding a stretch is more effective and there is less risk of injury.
- ...stretch a muscle that is not warmed up, ever.
- ...strain or push a muscle too far. If a stretch hurts, ease up.
- ...help to stretch, unless you are being helped by a qualified doctor or fitness professional.
- ...hold your breath. I know it sounds silly, but I see it all the time.

Want to Know
MORE?

Beginning flexibility: <http://exercise.about.com/cs/exbeginners/a/begflexibility.htm>
Book: *Full-Body Flexibility* by Jay Blahnik. One of the best books I have read on the subject. Good explanations and excellent photos.

CARDIORESPIRATORY ENDURANCE

Improving your cardiorespiratory endurance can be as simple as brisk walking, or as complicated as using interval training on a treadmill. The point is: Always do something to improve your cardio, as nearly every goal in a strength training program requires endurance. If you can't process oxygen in an efficient manner, you can't guarantee you will have the necessary energy to strength train properly.

A few questions on cardio:

The following are some common questions about cardio training. These are not the definitive answers for every case, but are some good guidelines to follow.

Q: "I heard that you can't lose weight and gain muscle mass at the same time, so I shouldn't do cardio."

A: Unless your caloric deficit (taking in fewer calories than you expel) via your diet is dramatic, there *is* room for both strength training and cardio in a strength training plan. The only people who need to worry about this are those who either have very poor nutritional habits or do cardio exercise to an extreme. It is then possible for muscle mass to have its glycogen stolen to create energy. Avoid this pitfall with moderation all around.

Q: "Is it true that walking is better than running for fat loss?"

A: This is a myth based on some reality. While you technically burn a higher percentage of calories from fat while walking, the key to fat loss is *total calories burned*, and high-intensity exercise just plain burns more. However, that shouldn't deter you from walking for cardio if you can't, or prefer not to run. Many successful cardio plans begin with walking, even if one is only capable of a few minutes at a time. If problems such as joint pain or exercise induced asthma are present, you can successfully challenge your cardiovascular system by increasing your speed, incline or length of walking session. Also consider some interval training, where you alternate running and walking.

Q: "Should I always do my cardio first, then weight train?"

A: When deciding when to do cardio, I always tell my clients to try both methods to see which they prefer. There is no measurable difference between doing cardio first or doing weights first.

Q: How do I track cardio progress?

A: There are many methods, but my favorite is to track your resting heart rate (RHR), which is your pulse for 60 seconds taken first thing in the morning. Average resting heart rates are between 60 and 80, and the lower you go, within reason, the healthier you are. Endurance athletes often get down to the 40s.

Your RHR *goes down as you get in better shape*, because your heart becomes more efficient, and therefore doesn't have to pump as many times to meet your body's oxygen needs.

Q: Is it true that the best time to exercise is in the morning, because it will boost my metabolism all day long?

Everyone's circadian rhythms are different, so you should experiment and find what time is best suited to your training.

Q: "How accurate is the old formula 220-age?"

A: 220-age is not very accurate, as it is the level at which an average person at a given age should exercise. In addition, most machines don't have accurate readings. Sweaty palms and dehydration can easily affect readings.

Instead, consider using the Rating of Perceived Exertion, a scale from 1-10, with 1 equal to sitting and doing nothing, 10 equal to your maximum effort. The beauty of this method is that it's simple, and an activity that used to feel like an 8—say, jogging or soccer—will feel more like a 5 or 6 as you get in better shape.

Or if you are in need of an accurate number (for those training for marathons, using heart rate monitors, or math nerds) consider using the Karvonen Formula, which takes into account your resting heart rate, as follows:

<<more>>

Karvonen Formula:**Example:** 40 year old with RHR of 80

Training heart rate (220-age)	220	180	100	70
- Resting heart rate	<u>-40</u>	<u>-80</u>	<u>x.70</u>	<u>+80</u>
x Intensity (Usually 50%-80%)	180	100	70	150
+ Resting Heart Rate				

Want to Know
MORE?

How to begin: <http://exercise.about.com/cs/exbeginners/a/begcardio.htm>

Book: *Ultimate Fitness: The Quest for Truth about Health and Exercise*
by Gina Kolata. Explores the exercise myths that we just can't kill.