

This month's article will attempt to merge the latest information regarding fat loss into something we can all use for exercising this spring.

I recently attended a small business seminar for personal training studios (first of its kind). In addition to business related materials, it highlighted a great deal of fat loss concepts and program design guidelines. The remainder of this article has paraphrased the seminar's literature, recorded comments and discussions.

It is surprising that the dogma of the *fat burning zone* still exists as a means to lose fat. The fat burning zone is based on faulty math that have been misinterpreted. It is a concept that the body burns a greater amount of fat at lower intensity aerobic exercise than it does at higher intensities. It is true that the body burns a greater percentage of fat at lower intensities than at higher intensities, but it's a greater percentage of a smaller number. The misinterpretation comes from the line "as a percentage". At lower intensities the body may burn 50% of the calories from fat, while at higher intensities it may only burn 35% of calories from fat. However, at higher intensities total calories burned exceed total fat calories at lower intensities.

Recommending aerobic training for fat loss only has been a fitness mistake. A study in the International Journal of Sport Nutrition in 1998 showed that 5 days a week of 45 min aerobic training for 12 weeks had no effect on body composition over dieting alone. Obviously even at these high levels of activity there is still a poor effect.

Cardiovascular training refers to any exercise that elevates heart and respiration rate. Examples include jogging, running, sprinting, swimming, circuit training etc. Aerobic training refers to a state in which the cardiovascular work is performed. Aerobic literally means 'with oxygen. It is a relatively low intensity state of exercise that can be maintained almost indefinitely (as long as oxygen is being supplied to the working muscles, in the required amounts – the exercise can be continued). This is aerobic training. All aerobic training is cardiovascular training. Not all cardiovascular training is aerobic.

Steady state aerobic training makes the body an "efficient fat burning machine". This is true but not a desirable response. Globally thinking, the only tissue that burns fat in the body is muscle and aerobic training does demand work from the muscles, but not as much as other activities. Aerobic training doesn't require the muscle tissue to stay around either. Aerobic training makes muscles more efficient at using fat. An analogy would be if your car became more efficient at burning gas – would you be using it less?

So if your muscle is the only tissue that burns fat, and aerobic training makes muscles smaller and more efficient at burning fat, then essentially you are creating a smaller, more efficient fat burning machine. This is not effective to lose fat.

Steady state aerobic training raises your metabolism. Metabolism is largely a function of how much muscle you carry. Aerobic training does extremely little to even maintain muscle, thus, it will do nothing to contribute to raising your metabolism at rest. Naturally, you will burn calories while aerobic training, but will you burn any more at rest? A small chance.

The body literally adapts to anything we attempt to do by responding in the reverse manner. Don't drink any water and your body tries to retain water. Does weight training build muscle? No it does not, what actually occurs is a breakdown of muscle tissue and the body adapts by building muscle.

So if you burn a ton of calories doing aerobic training, that same body adapts to aerobic exercise by slowing your body to store more fat. Same body – same system.

The biggest problem with aerobic training is that you get better at it. In weight training, as you get better, you add more weight or more reps and there is literally no finish line. In aerobic training, the work required to run 5 miles will become less and less as you get fitter. So to continue to improve you either go further (do more work for the same amount of calories) or you run it faster. Going further kind of defeats the purpose. Is there much joy in running 40 mins to burn the calories you once burned in 30 mins? And going faster involves the same problem. Eventually, the new speed becomes too easy for you and you have to go more intense to get the same benefits.

There is no end point with weight training. However there is an end point with aerobic training. You will reach an intensity eventually that will be the end of the aerobic zone. Quite simple going any harder will send your body into the anaerobic zone. So at some point you're not doing aerobics any more. So, if you have to stop doing it as some point to get the benefits you seek why not do anaerobic work to begin with?

This valley evolves around endurance type training, remember, this is about fat loss. Even though T2BB promotes performance goals, in the end, people are still worried about fat loss. We advocate training that accomplishes your performance goal and feeling/looking better is a built in bonus. Next month's article will provide examples of a program design. Happy Easter!