Myth of the Fat Burning Zone

This is one of those cases where a little bit of knowledge is a dangerous thing. Years ago scientists reported that as the intensity of exercise ***increased***, the percentage of energy coming from fat ***decreased***, with an increasingly higher amount coming from carbohydrates instead. For the highest percentage of energy to come from fat, lower intensity exercise is needed.

The fitness industry grabbed this and started promoting this lower intensity region, generally about 60-70% of Maximum Heart Rate, as the ***'Fat-Burning Zone'***.

(Max HR was determined by the equation 220-age… which is an assumption fraught with inaccuracies in itself, but that's for another time…)

While at first this may sound like it makes sense, the concept of the FBZ has some obvious flaws. Take the following example, in which two people exercise for 30 minutes, one at a lower intensity (the traditional FBZ), and another at a higher intensity:

		'Fat Burning Zone'		
30 mins	60% Max HR	300 Total Cals	60% Fat	**180 Fat Cals**
		Higher Intensity		
30 mins	80% Max HR	500 Total Cals	40% Fat	**200 Fat Cals**

It is true that the ***percentage*** of fat will be lower during the higher intensity session, but as the example shows it is a lower percentage of a ***much larger total***, often resulting in a larger total amount of fat used. So not only does it burn more fat directly, but also a far greater total of calories to contribute to the daily energy expenditure, the crucial determining factor in long term fat loss.

In addition to the energy expended during the exercise session, there is a second component in the total energy cost of an activity: the energy expenditure during the recovery period following exercise, where the metabolic rate remains higher than resting levels. This period, called the 'excess post-exercise oxygen consumption' (or EPOC), is significantly higher following periods of higher intensity activity.
Why does this matter? The EPOC is fuelled by fat.

One final factor to consider is that fitter people are better able to utilize fat as a fuel during exercise, so effectively the fitter you get, the more fat you can burn!
And the best way to improve fitness levels? Higher intensity exercise.

So in summary, compared to a bout of low intensity (Fat-Burning Zone) exercise, a higher intensity exercise session will:

- burn a larger amount of calories both during and after the workout
- use a lower percentage, but a greater total of fat
- result in much larger fitness improvements (which in turn increases fat burning ability)

So it is obvious that the so-called 'fat-burning zone' is **not** the most effective exercise intensity for fat loss, or improvements in fitness and performance, regardless of what the sticker on the treadmill says.

Of course the main problem is that higher intensity exercise is much more difficult to continue for any period of time. That's where interval training comes in. In a nutshell, interval training is a series of higher intensity bursts of activity interspersed with lower intensity recovery periods. So for example, if your usual workout is a 30 min walk, every few minutes try adding 30 secs of jogging/fast walking, or if you usually cycle at a steady rate on the stationary bike, add in some hills or sprints to mix the intensity up.

Obviously higher intensity work is not easy, it's not for everyone, and in no way am I saying a walk or slow jog is a waste of time. I would far rather you do a lower intensity bout of exercise than sit at home on the couch. But if you want to fast-track your fat loss and fitness results, hiking up the intensity in anyway you can is the way to go. Give it a try!

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