

Make the Most of Your Metabolism

You Can Maximize How Your Body Burns Fat and Calories...
and How You Perform on Race Day!

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How many runners do you know who want to customize and maximize their training efforts? There is only so much time and energy to devote to exercise, and many of us have a tendency to slip into a rut with our training habits. The end result is that some of us still aren't quite where we want to be, or continue to struggle with our weight despite getting a lot more exercise than the average Joe. Where's the justice?! Take my client, Stephanie, for example. Before she visited me, she could barely break a 9:00/mile pace (despite running six minute miles in high school), and had been gaining weight despite increasing her weekly mileage. In fact, whenever she trained for a marathon, she *gained* five pounds. After three marathons, she was 15 pounds heavier, but didn't know where to start since she was already running 4-5 times per week and eating a healthy diet. She wondered if a slow metabolism might be to blame.

Enter metabolic testing – one of the hottest new trends in the fitness and weight loss industry. Until recently, only high level athletes or medically supervised weight loss patients had access to this type of technology. However, thanks to advancements in the field, this testing is much more portable than before and available to all fitness enthusiasts. For about \$200, you can test both your Resting Metabolic Rate (RMR) and your Metabolic Response to Exercise (including VO_{2max} , Anaerobic Threshold, and both total calories and fat calories used at different heart rates), including in-depth print-outs of your test results, explanations of what it all means and suggestions for changes to your eating and training regimen.

What, exactly, do you stand to learn and how exactly can it help you? Let's look at Resting Metabolic Rate first. Weight loss can be stubborn. It's supposed to be as easy as balancing the old equation between calories in and calories out...but there's one problem. Most of us are only measuring *half* of the equation. It's quite common to track or at least be somewhat aware of calories *in*, yet there is very little talk about tracking or measuring calories *out*. Resting Metabolic Rate (the amount of calories you burn each day without moving a muscle) accounts for over 60% of all calories you burn each day. Estimates can be made based primarily on body weight and gender, but research shows that these estimates can be pretty far off the mark for some individuals. In a landmark study from the University of Pennsylvania in 1988, resting metabolism was measured in many women who were the same age, height, and weight. According to the formulas, they all should have burned approximately 1700 calories per day at rest. That's not what researchers found, however. Data showed that each of these women burned anywhere from 1200-2200 calories per day! Testing, therefore, is the only way to know

for sure, and the only way to accurately gauge how many calories you should eat to reach your goals (weight loss, maintenance, etc.). You can also use this information to confirm or deny whether or not you can blame lack of weight loss on a “slow” metabolism! For my client, Stephanie, it meant learning that her resting metabolism was slower than most at 1,100 calories per day (as compared to her calculated estimate of 1400 calories/day). Even when she added the calories she burned running and just moving throughout the day, she was still burning less than she ate every day. Since the testing, she has been reading food labels and tracking portions in an effort to more closely monitor her caloric intake.

How about your body’s unique metabolic response to aerobic exercise? Most people, while exercising at a moderate intensity, use a combination of carbohydrate and fat as fuel. As the intensity increases, fat usage decreases gradually...or dramatically, and if it’s a dramatic decrease, it may not happen at the intensity that you’d think. An interesting observation that comes from testing so many people is that none of them are the same. Some people find that they continue to burn a lot of fat as fuel even when their heart rates are quite high. Others find that their fat usage drop off quite quickly at a fairly low heart rate. The fun begins when you can then apply your unique information to your workouts. You will be able to customize your workout within the heart rate zone that maximizes your overall caloric burning rate while still utilizing the maximum amount of fat for fuel. There’s also a great application to interval work. With precise data, you’ll be able to customize the heart rates you select for interval workouts – the key to increasing your speed. Testing will determine your anaerobic threshold – the point where your fat utilization drops off considerably and your body is in running on glucose. Intervals above and below that point can train your body to bring more fat utilization to the table at higher heart rates, translating to faster times.

Let’s look at Stephanie’s case again. The most interesting revelation for her was that she burned the most fat per minute when her heart rate was between 70-80 beats per minute, which for her, was the equivalent of walking at a 20 minute per mile pace. Contrast that to the 130-140 bpm heart rate she reached whenever she ran, and which burnt almost zero fat calories – only carbohydrates. No wonder she wasn’t losing weight when she increased her mileage! It also became apparent that her consistent pace on every run was preventing her from getting faster. Using the results of her metabolic tests, we computed her personal heart-rate training zones which, like her RMR, were quite a bit different than the standard charts you see printed in running magazines and health clubs. She now trains with a heart-rate monitor so she can effectively measure her effort/intensity and stay within a pre-determined fitness zone set for each type of run (recovery, tempo, interval and long runs), enabling her to train much more efficiently. She also reluctantly added two 60-minute walks at 3.2 mph into her weekly routine. At first, Stephanie thought that walking would be a waste of time, but that changed when, for the first time in years, she started losing weight and felt stronger on the days that she did run. In fact, she lost 10 pounds in the first three months after testing and has seen a dramatic improvement in her running times as well! Now that’s someone who has made the most of her metabolism!

Cathy Moxley, M.A., CSCS is an exercise physiologist and fitness coach in Germantown, MD. She has a Master’s Degree in Exercise Physiology and specialized training in metabolic physiology. Through her business, Fitness InSight, she has helped thousands of clients lose weight and get in shape. In addition, she is the author of The Busy Mom’s Ultimate Fitness Guide, available at www.BusyMomSolutions.com, as well as Amazon.com and Barnes & Noble. To find out more about metabolic testing and see sample tests, you can visit <http://www.TestYourMetabolism.com>.