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Do you want to do cardio safely, effectively and efficiently?

Would you like to learn a proven system where all you need is your body and your brains to make it happen?

When I worked as a Metabolic Technician at a major health club here in Minneapolis, I had the opportunity to perform hundreds of cardio assessments.

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In this Cardio Efficiency Programming Case Study I teach you how I determine my own target intensity and how I help others do the same!

The information contained inside is applicable immediately and I've included simple interval templates for you.

Enjoy!

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10 Minute Warm - Up

Determining what intensity to do your cardio at:

When you are picking your cardio intensity for the day, use your breathing and muscle tension as key indicators. Let me explain. Warm up for 5 – 10 minutes to elevate your body's core temperature and loosen up your muscles. Once you've warmed up, continue to elevate either speed or incline (treadmill) gradually until a couple of things happen.

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1. *Jaw drops/labored breathing* – jaw drop is a great way to determine what your cardio limit should be when looking to use the maximum amount of fat possible for the workout. Fat is our most efficient fuel source and we should tap into it whenever possible for a variety of reasons. If you were having a conversation with someone, the point when it becomes difficult to converse with them is the point where your breathing becomes labored and your jaw drops.

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2. Muscle burn – This is when your body transitions from using fat to using the carbohydrate stored in your muscles for fuel. The burning is literally your muscles burning their storage. This is an indication that your body has crossed over into full carb burn.

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We are limited in the amount of carbohydrate we have to use for fuel as we need to replenish our stores all the time. With fat, we always carry an emergency supply. Some carry unhealthy and detrimental levels of fat thus making it even more important to use that extra fat for fuel in order to get rid of it.

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While I was working at a major gym chain I had the opportunity to do cardiovascular assessments for members. We had a very strict protocol that we were expected to follow and most of the time we did. However, there was group of us trainers that were curious to see just how different stimulus would affect our ability to use fat for fuel. So we did what any curious person who refused to let fear of negative consequences stop us, we experimented with the machine and learned some pretty cool stuff.

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The Cardio Assessment

I'll start by going over what the assessment looked like briefly. Members would show up after following a very close protocol for the assessment. We would ask them to place a heart rate strap on themselves, then put on the mask that would hook up to the computer where we would measure the gas exchange of oxygen and carbon dioxide.

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With this information we would get what heart rate each individual would burn fat most efficiently (aerobic base) and what heart rate their body would transition over to 100% carb burn (anaerobic threshold). There are benefits to both types of training when used in the proper situation. Once we had them all hooked up they would warm up for 5 – 10 minutes and we would begin the assessment.

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We would slowly ramp up each individual and read our machine. Once we got all of the information, we would unhook them, sit down, explain the results and send them on their way with one of dozens of generic workouts that the computer spit out. For a scalable product it was done really well and it worked to give individuals what their target heart rate was for that day.

I don't know about you but I show up differently every day. I think most of us do.

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Our Discovery

What we discovered after deciding there must be a better way was to experiment with each other and see just what affect that threshold had on our ability to use fat for fuel. Know this, the higher our heart rate, the more overall calories our bodies use.

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A calorie is a measure of heat and energy. So, if our aerobic base is high then we use a high percentage (50-70%) of a big number being calories coming from fat. What we wanted to see was what affect was had after we had crossed our anaerobic threshold. Would our aerobic base be higher, lower or the same as it was on our first ramp up? (First ramp up = what we brought all members through who purchased the assessment)

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What we learned was that after working through our base on the way up and crossing over our anaerobic threshold by 10 to 15 heart rate BPM (beats per minute), our base actually moved up to where we initially crossed our anaerobic threshold. Let me give you an example, but before I do I want to remind you that the higher our aerobic base, the more efficiently our body is capable of using fat for fuel.

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Fat is our most efficient fuel source and many of us have excess fat that we would like to get rid of. What I'm about to share with you is how you can use this simple system to use more fat yourself during exercise. And, you won't need to go through the trauma of a fitness floor with an alien mask and a fitness professional who is working hard to rush you through a corporate driven experience.

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Most of your experiences will be amazing if you choose to go through an assessment like that but in my experience it's unnecessary. So here goes:

Apply It

When you hop on the treadmill with this newly gained information, do it with a purpose. You are now equipped with a tool that will help you use fat for fuel more efficiently. That means you'll be able to speed up your results if you're truly committed to making it happen.

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As you slowly increase the incline at a speed slightly faster than your warm up speed, be mindful of how you feel. How is your breathing changing? It will take 30 seconds or so for your body to settle in to a new speed and incline so be patient with this process.

You can even say a sentence or two every minute or so to see just how your intensity level would be affecting your ability to communicate.

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As you approach your limit, and you'll feel it coming, keep in mind what speed and incline you're at. You'll feel the need to take a deep breath and settle in. Once you feel that jaw drop and your muscles begin burning carbohydrates, keep going. Take it one step further (another 2 degrees incline or half mile an hour). Once you do that bring your speed and incline back to where you first began to feel the burn and labored breathing. It should feel differently now. Work your intervals that way.

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Throughout your workout you should be mindful of how you are feeling. You'll likely tire later in your workout. It's called cardiac drift, when your base and threshold shift during a workout. You'll get more tired and may need to adjust your intensity accordingly. Error on the safe side early in your fitness program as you will progress quickly with consistent effort over time.

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Every day you'll show up with a different set of zones and intensities that you should follow to be most efficient. This will depend on what you've eaten that day, how much sleep you got and what your stress levels are, among other things. As you gain experience with this process your life will shift towards your most efficient self. It will begin to affect all aspects of your life and transcends the treadmill.

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Interval Templates:

These levels are to be followed after your initial discovery ramp up that you'll complete each day after your warm up. High and low refer to different intensities completely specific to your body in your current moment of time.

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Beginner – high 1 minute/low 4 minutes

Intermediate – high 2 minutes/ low 3 minutes

Advanced – high 3 minutes/ low 2 minutes

Elite – high 4 minutes/ low 1 minute

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You are now equipped with a tool that will last a lifetime whether you're looking to get off the couch and lose fat, PR your next 5k or complete your first 50 mile footrace. The human body doesn't care what your goals are.

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Whatever motivates you to move, get out there and do it. This system also can be applied when you are on the elliptical machine, rowing machine or outside running or biking. It's all based on perceived exertion and the more you concentrate on how your body responds to different loads and intensities, the more efficient your approach will become.

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