Are you wasting your time with "Cardio?"

Whether you're a competitive physique athlete or just want to look the part, chances are you've done your fair share of "cardio." If you want to get really lean you're supposed to right? Or at the least, we're told it's healthy for us to dabble in the occasional mind-numbing, low-intensity stepmill session. Herein lies the issue that most people partake in cardio arbitrarily. Whether self-directed, or guided by a coach, many haphazardly partake in a zombie's journey on a 15% incline or, in contrast, sprint aimlessly in an effort to solely expend energy.

While "cardio" does burn calories, that being the exclusive goal dismisses the actual adaptations that conditioning (the real term I will use hereafter instead of "cardio") elicits and leads many to waste their time doing the wrong type and wrong amount. Using the concept of specificity, alongside the well-guided assumption that those reading this article are focused on sustaining a healthy, lean, and relatively muscular physique, we can devise a more customized conditioning protocol for you.

The first step in constructing this plan requires some very cursory knowledge of human exercise metabolism. Without taking too deep of a dive into biochemistry we can look at conditioning as affecting the bodies aerobic and anaerobic systems on a continuum rather than thinking of the two as black and white. On the aerobic end we are working at lower intensities, in an oxygen-rich environment, and using a higher percentage of fat as fuel. With increasing intensities, we slide towards the anaerobic side where a higher percentage of fuel is coming from carbohydrates and in a more oxygen-deprived state. Understanding our energy systems in this way also helps us better appreciate that cardio programming should be progressive as well as fluid, honoring one's current physical state.

As well-rounded physique athletes, we're looking to maintain optimal health while maintaining a lean, muscular aesthetic. In order to sustain adequate cellular and cardiovascular health having a requisite level of aerobic fitness is necessary. How do we know we've achieved this? Well, some quick, at-home biometrics you could use are waking heart rate and blood pressure. A waking heart rate of 50-60bpm and blood pressure in the neighborhood of 115/75mmHg are relative "gold standards" of cardiovascular health and aerobic fitness. And while not exhaustive nor contextually specific, these two metrics can go a long way to initially qualifying yourself for conditioning, as well as continually monitoring how you're adapting to your training to alter your day-to-day protocol (i.e. autoregulate).

So, what to do if your metrics are out of whack? Let's say for example you take your waking heart rate and blood pressure for a week and their averages are 73bpm and 135/80mmHg respectively. While these numbers aren't horrendous, they're a bit high, and a concerted block of aerobic exercise could help bring them in range. In doing so you will increase your body's ability to oxidize fat, recover more readily between your sets of squats, and improve cardiovascular function and health.

What does a "block" of aerobic-based conditioning look like? Well, it will be different for everyone and the duration it lasts is usually 3-8 weeks with bouts of 30-90min of a sustained heart rate, 4-7 days per week. The more volume you do in a given amount of time the faster you will get the adaptation. Your standard LISS (low-intensity steady-state) or Steady Aerobic session is done between ~130-150bpm depending on your age and fitness level or ~65-70% of your maximum heart rate. The commonly-used, outdated model for estimating your maximum heart rate is 220- your age, but for those who are physically active, you will find this to be lower than it is in most cases. Subjectively you can also employ this steady aerobic protocol by sustaining an intensity where you can keep up a labored conversation. As for what type of activity, the traditional incline treadmill, stairmaster, or elliptical will do, but if you decide to get a bit wilder just make sure that you don't use any external load and keep your heart rate within the aforementioned range and you're good to go.

How do we know we've achieved what we needed to from our aerobics? Once your metrics consistently are in range of the gold standards above you should be ready to progress your conditioning intensity. As you may have already surmised the time course it takes for someone to get within range will vary AND can be fluid, that is you may toggle back and forth out of range as these metrics can also be affected by many other variables than your fitness. Any form of stress day-to-day could negatively affect your biometrics and thus "autoregulating," or altering your daily regimen based on your current physical state, is massively important. That, however, is a topic for a different day.
Now before you hop right into all-out, high-intensity intervals let's layout a logical progression. Remember earlier I mentioned conditioning as a continuum rather than being black or white? Well, we aren't going to go from walking uphill watching Netflix to slinging around the prowler sled until we blow chunks, there's a successive middle ground. Below is an abridged version of a logical progression that I have adapted, and hopefully not bastardized too much, from the Muscle Nerds school of thought:

Aerobic Intervals: Use an intensity that brings your heart rate slowly up to ~160bpm or just over ~70% of your max heart rate. Once there bring the intensity back down until your heart rate returns to 120-130bpm. Repeat this interval anywhere from 30-60min.

Lactate Threshold: Employ a 2-minute relative sprint, or intensity that you can just barely sustain for that duration. Remember, this is simply a progression in intensity compared to the aerobic interval. At this point, we are touching upon both aerobic and anaerobic systems. Once the 2-minutes is complete either greatly drop your intensity or walk until your heart rate returns to 120-130bpm before you employ another interval.

Lactic Intervals: Sprint all-out or use a high-level of intensity for 30-40 seconds, then utilize complete rest until you've returned to 120-130bpm, this may take up to 5 minutes. Often for this to work, you may have to get a solid 5-minute warm-up to get your heart rate above 130bpm before you utilize the protocol. Usually setting a timeframe in the neighborhood of 20-30min and/or setting a predetermined number of repetitions is advised.

<u>True HIIT (High Intensity Interval Training):</u> Sprint or utilize an all-out intensity for 60 seconds. While this is longer in duration than the lactic interval, sustaining the highest output possible and covering as much distance as possible (think a 400m dash) can be a bit more taxing as the time is longer, and we are now flirting with the top end of your anaerobic output. After completion utilize complete rest until you get back under 120bpm before you plunge back into hell. In the case of HIIT set a number of target reps and monitor progression using heart rate recovery (HRR).

While not exhaustive, this progression will cover most bases for the physique athlete. Once you've achieved a requisite level of aerobic fitness and as your metrics stay in range, employing the above progressive conditioning protocols will allow you reap the positive physique altering benefits in less time and with fewer sessions per week. Measuring your heart rate recovery (HRR), which is basically how fast your heart rate drops during the rest period after a work bout, you can qualify yourself progressively. The faster it recovers the more ready you are to push to the next level of intensity. For progression there is no hard and fast rule, but be pragmatic and don't kill yourself.

Remember, the relative appropriateness of what type and amount of conditioning you should implement is based on your current physical state. While obtaining a foundation of aerobic fitness through a several week block of watching Game of Thrones on the stairs to nowhere is necessary in many cases, its equally as important monitor your biometrics (Blood pressure and waking heart rate) from time-to-time, if not daily, to make sure that you are doing what's right TODAY. There is certainly more biometrics to look at and strategies to better employ autoregulation, but we will save that for another day. Let's focus first on not fulfilling the stereotype of mindless meatheads and start being intentional with how we do "cardio," or I should say, conditioning.

besickfitness