## **Debunking The Lactic Acid Myth**

Ah, the age-old debate among runners: "Are there such things as junk miles?" If you've spent any time in the running community, you've probably heard this term tossed around. But what exactly are junk miles, and how can you avoid them?

First, let's debunk a common misconception: slow running does not automatically equate to junk miles. It's all about context. Sure, if you're running at a snail's pace and barely raising your heart rate, there may be limited training benefits. But what's considered "too slow" varies from runner to runner. A pace that doesn't challenge your aerobic system could be deemed "too slow." To put it plainly, junk miles are those that don't serve a purpose in your training. They're miles that fall into a grey area – not slow enough to promote recovery and not fast enough to stimulate real improvement. It's like you're stuck in running limbo, and your training suffers because of it.

In distance running, the majority of events above 800 meters rely heavily on the aerobic system. Even a marathon, the ultimate test of endurance, is about 99% aerobic. So, logically, most of your training should be aerobic in nature. That's where the problem often arises. Many recreational runners go too fast during their workouts – fast enough to not be considered slow but not fast enough to be truly fast. This middle-ground pace doesn't effectively target the muscle fibre combinations, the building of additional mitochondria (the energy powerhouses in your cells), or the physiological and metabolic changes needed for improvement. Moreover, it hinders your recovery, increasing the risk of injuries or missed training sessions.

So, what exactly are you targeting with these "wrong intensity" runs? Most likely, your ego. Running at this pace might give you a small fraction of the stimulus you were aiming for but not the full benefits.

To avoid these dreaded junk miles, the old adage rings true: "Run your easy days easy and your hard days hard." Pace matters—a lot. Here's a quick breakdown of how to approach various types of runs:

- The Long Run: This is the cornerstone of endurance training. Aim for 2 to 2.5 hours of comfortable, "chatty" running over an undulating route. It helps improve mitochondria, capillary density, bone and muscle strength, and fuel efficiency
- Tempo Runs: These last around 20 minutes and are typically paced about 10-15 seconds slower than your 10k race pace

- Intervals: When targeting VO2 Max, run at 95-100% effort for 3-5 minutes with recoveries equal to or slightly less than the effort duration
- Reps: These are faster than race pace but much shorter in duration, usually 200-400 meters. Take full recovery between each effort

Creating an effective training plan involves finding the right combination of these workouts tailored to your goals and fitness level. Remember these key points:

- Faster isn't always better; the correct pace is crucial
- Recovery matters, and different effort/recovery durations yield different results
- The number of efforts can vary; listen to your body and go home when your form deteriorates.

So, the next time you lace up your running shoes, keep the concept of junk miles in mind. Don't fall into the no-man's land of training intensity. Instead, run with purpose, and watch your running journey flourish.