MOXY
MUSCLE OXYGEN MONITOR

Training and Racing with Moxy

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Understanding an Athlete's Physiology

Building an optimal training program for an endurance athlete requires a deep understanding of the athlete and their potential capability. And while the results of race day aren't always controllable, there are ways of optimizing the efficiency and efficacy of training to maximize the performance potential of each individual you work with.

The key: understanding the athlete on a physiological level!

Understanding an athlete's physiology requires the monitoring and measurement of some physiological variable. The most accessible physiological variable is muscle oxygen saturation (SmO2). SmO2 is monitored using near-infrared spectroscopy (NIRS) systems which use red-light to determine how much oxygen is in the muscle at any given moment and how it's changing in response to load (exercise intensity). NIRS is the core technology of Moxy Monitor.

Using Moxy Monitor, you can non-invasively monitor your muscles' response to exercise in real-time. The uses for Moxy Monitor are vast, but there are three core training integrations:

1. Physiological assessment
2. Training readiness
3. Real-time intensity control

Training and Racing with Moxy aims to provide you with all the information necessary to use Moxy and muscle oxygen saturation to it's fullest potential.

The goal in writing Training and Racing with Moxy is to explain the physiology and application of the three types of training integrations and the different elements within each integration. We don't expect you to incorporate all of these integrations all the time, BUT we want to provide enough detail for you to understand your physiology so you know how to modify your training for what's optimal for you on a daily basis!

Bottomline: Use as much of Training and Racing with Moxy as you need to optimize your training and don't be afraid to jump around!

Three Keys to Physiological Training Optimization

Understanding an athlete's physiology allows for the optimization of training for that individual. Optimizing training for an individual has three major components: physiological assessment, training readiness, and real-time training intensity adjustment.

Physiological Assessment: The Roadmap to Training Optimization

Physiological assessment tells you what kind of athlete you are training and what intensities they need to exercise at to gain specific adaptations. Are they extremely efficient with a small engine that can go all day, like a Prius? Or do they have a massive engine, that is less efficient but can output very high power like a Corvette? The only way to know what is truly going on underneath the hood is by assessing your athlete's physiology.

Not only is physiological assessment useful for telling us the type of athlete we are working with, what exercise intensities they need to train at to optimize their training and, repeat assessment can tell us HOW an athlete is adapting to training. Do they respond better to higher intensity work or do they respond to increased training volume? Did the VO2max intervention that they just completed really result in improvements to VO2max?

Finally, assessment can give you a road map to what is limiting an athletes performance physiologically. Is the athlete capable of delivering enough oxygen to their muscles? Can their muscles use the oxygen that is being delivered? Maybe they aren't able to exchange oxygen and carbon dioxide adequately with the environment. Identification of an athlete's limiter gives us the opportunity for individualized training interventions specifically targeted at improving what's physiologically limiting an athlete's performance.

Understanding the physiology of your athlete, how their training is affecting their

physiology, and what is limiting their performance will give you tools to optimize an athlete's training plan.

Evaluating Training Readiness: Going Beyond Resting Measures

Assessing an athlete's physiology is just the first step to optimizing a training plan.

All good coaches are aware that training stress and the ability to absorb training stress are important factors for making continued progress. However, there are very few tools that are sensitive enough to allow for the evaluation of training readiness after a short bout of exercise. How does an athlete know if they should train normally or defer their workout to the next day? Currently, technology like heart rate variability is used to evaluate training readiness.

Admittedly, this is a step in the right direction, but it is just a resting measure and only one piece in a larger puzzle. A dynamic measure of training readiness that evaluates how the athlete responds to exercise (i.e. a warm-up) provides more direct information and gives athletes more confidence to make adjustments when necessary.

Thus, barring any sickness or injury, a warm-up is a perfect time to evaluate if an athlete's physiology is ready for the work that is programmed that day.

For example, if an athlete repeats a similar warm-up each day, depending on how that warm-up goes and if you have the right technology (i.e. NIRS to measure muscle oxygenation (SmO2)), you should be able to determine if the athlete should train as planned or adjust training based on the responses that are measured.

By measuring the SmO2 response, not only will the athlete be confident that they are truly warmed up and ready for their training, but they will also get an indication of whether their body is really ready to train that day or not.

Real-Time Training Intensity Adaptation: The Next Step in Performance Optimization

Performance measures like first threshold, FTP, and even power at VO2max can change during prolonged workouts, based on environmental factors (like heat and altitude), and in response to accumulated stress, like long training blocks.

So why don't coaches and athletes adjust their training intensity in response?

The answer probably has to do with the fact that most technology, like heart rate isn't sensitive enough to capture these changes for us to make confident changes in response to varying stress and fitness level.

Adjustment of training intensities on a given day could represent a more time-effective way to train that would lead to more optimal adaptations and reduce the risk of setbacks like sickness and injury. However, we need tools that are able to detect these changes so that we can make confident, real-time decisions about how much to modulate training intensity on that day.

Unlocking Athletic Potential: Precision Training with Physiological Monitoring

The overarching goal of any training plan is to make an athlete better, i.e. improve performance.

The combination of physiological assessment, evaluation of training readiness, and real-time intensity adjustment; based on how an individual is feeling and how their physiology is responding daily, are keys to optimizing an athletes ability to perform on race day. The only device that can be integrated into all three of these aspects of training optimization is the Moxy Monitor.

Using Moxy Monitor for Training Optimization

NIRS devices non-invasively measure muscle oxygenation (SmO2) in real-time while you exercise. Moxy Monitor is the only NIRS device in the world that can isolate oxygen measures specifically in the muscle and has been shown to measure accurately on a scale of 0% to 100%. (Feldmann, A., Schmitz, R. W., & Erlacher, D.)

But how can you integrate Moxy Monitor into your training to optimize assessment, evaluate training readiness, and make real-time training intensity adjustments?

Training and Racing with Moxy provides an overview of how to do that.

Assessment with Moxy Monitor

Graded Exercise Tests

As outlined earlier, assessing an athlete's physiology is the first step to understanding what intensities of training will be appropriate for that athlete.

Typical assessments involve completing a continuous ramp or step test, or some iteration of these tests, with rest in-between each step. In all of these assessments exercise intensities gradually increasing from low to high. This process is termed a graded exercise test.

The goal is to see how an athlete responds to various exercise intensities. From these assessments, you can determine physiological markers that are indicative of performance (i.e. economy, thresholds, and maximal aerobic capacity).

You can also identify thresholds to gain an understanding of where an athlete's physiology shifts/changes (first and second threshold) to facilitate the intensity of exercise that is being completed (i.e. build individualized training zones).

Thresholds represent exercise intensities where the body changes how it responds to the stress of exercise. Generally, these thresholds represent points where the body starts to shift and favor different modalities of energy production. For example, first threshold represents the first major shift away from fat oxidation towards higher carbohydrate oxidation. The second threshold represents a shift from primarily using oxygen as a source of energy production to an increased reliance on energy production from non-aerobic sources. Thresholds are useful because the rate at which the body accumulates training stress (i.e. fatigue) increases dramatically as we move from under first threshold, between first and second threshold, and finally, above second threshold.

Previously, this type of testing had to be done in a lab with equipment that cost thousands of dollars. But the Moxy Monitor allows for lab-grade physiological evaluation in the comfort of your home and even outdoors (if you can control the exercise intensity well enough).

Because the Moxy measures oxygen delivery and consumption at the working muscle it's highly sensitive to changes in muscle oxygen physiology. Breakpoints in skeletal muscle oxygenation (SmO2), measured with Moxy, have been shown to be highly correlated with first and second lactate and ventilatory thresholds (Batterson et al. 2023, Feldmann et al. 2022).

Thus, by placing a Moxy monitor on a working muscle, having an athlete complete a graded exercise test, then finding inflection or breakpoints in the SmO2 data, you can determine an athlete's thresholds. These thresholds can be used to determine their training zones.

Interestingly, thresholds are not fixed parameters. They change daily in response to previous training stress, temperature, altitude, nutrition, other life stressors, and many other factors. This is why it is important to be able to adjust your training intensity based on the daily training conditions. By learning what these responses look like, the athlete can make training load adjustments in real-time. This is detailed further below.

Before detailing how to change training intensity based on SmO2 response, let's start by detailing how to determine individual training zones during a graded exercise test using just the Moxy, a heart rate monitor, and measure of speed or power.

How to Determine Training Zones with Moxy

Understanding your unique physiological response to exercise is crucial for optimal performance. While traditional zone determination relies on age-based calculations or generic metrics, Moxy Monitor offers a precise, personalized approach to identifying your training zones.

What is a Graded Exercise Test?

As discussed above, a graded exercise test systematically assesses an athlete's physiological responses by progressively increasing exercise intensity until exhaustion. This method provides the most accurate insight into your body's performance capabilities and is how you determine your athlete's training zones.

Choose a Test Format

There are two primary graded exercise test approaches. You will need to select one:

1. Continuous Ramp Test
    - Intensity increases every second
    - Typically used in cycling
    - Power output increases 20-30 watts per minute
2. Step Test
    - Intensity increases after fixed time periods
    - Suitable for cycling and running
    - Each stage typically lasts 1-5 minutes
    - Increments of 20-30 watts per stage

You should choose the most time-efficient and straightforward test format that will yield the most data given the athlete's goals.

Conduct the Test

In order to conduct your graded exercise test you will need some essential equipment. It's best practice to follow the same guidelines for each test.

Essential equipment:

- A properly placed Moxy Monitor
- Cycle ergometer or treadmill
- Data recording device (i.e. a Garmin)

Additional equipment:

- Heart rate monitor

Test Guidelines:

- Perform at a consistent time of day
- Stay hydrated and normally fed
- Continue until voluntary exhaustion

Interpret the Results

After completing the test, analyze your Muscle Oxygen Saturation (SmO2) data to identify:

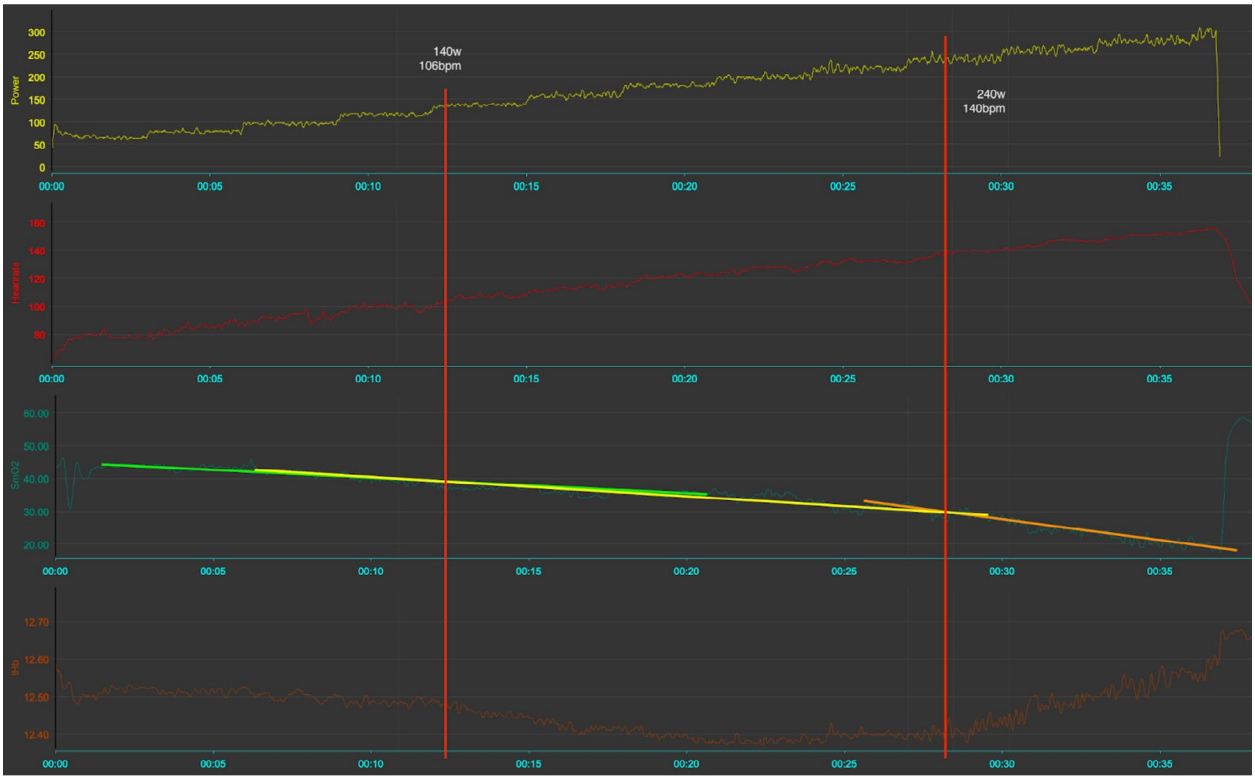
- First Threshold (NIRS Breakpoint 1)
- Second Threshold (NIRS Breakpoint 2)

You can do this by drawing three lines through the SmO2 vs Time graph. Where the first two lines meet is your first threshold, where the second two lines meet is your second threshold. From this you can create a three-zone training model. Zones can be based off of SmO2, Heart Rate, and Speed/Power. Note the SmO2, heart rate, and speed/power each breakpoint is occurring at.

Create a three-zone training model:

- Zone 1: Below first threshold
- Zone 2: Between first and second thresholds
- Zone 3: Above second threshold

Now you can use these training zones to ensure your athlete is exercising at the proper intensity for the given stimulus and purpose of the workout.



Key Insights

Using a Moxy Monitor during a graded exercise test can yield insights into:

- Individual physiological responses to various exercise intensities
- Training thresholds for determination of individualized training zones

Remember: Thresholds are not static. They fluctuate based on factors like training stress, nutrition, and environmental conditions. How to use Moxy to modulate real-time exercise intensity is discussed in further detail below.

Limiter Assessment

Another, unique aspect of continuously measuring SmO2 with the Moxy Monitor is that you can measure both exercise oxygen kinetics AND oxygen recovery kinetics.

By adding rest periods between each stage of a graded exercise step test, we can start to understand what is LIMITING an athletes oxygen delivery and utilization. By identifying an athletes limiter, we can specifically address that limitation by modifying certain aspects of training.

To do this, you would have an athlete complete a step test but with 1-minute breaks in between. Then, based on the SmO2 changes, during exercise and during rest, we can figure out their limiter. If this sounds nebulous, don't worry we will go into greater detail below, and you can read more about it in the Moxy Training Integration Guide.

How to Identify an Athlete's Limiter with Moxy Monitor

Understanding what is physiologically limiting an athlete's performance is key to targeted performance improvement. Moxy Monitor offers a unique approach to uncovering an athlete's physiological limiter.

Limiter Assessment Format

To determine an athlete's limiter you have to conduct an intermittent step test which consists of:

1. 3–5-minute stages
2. 1-minute rest periods between stages
3. Start at a low power or speed
4. Increase 20-30w OR 0.5 kph per stage

Conduct the Test

In order to conduct your limiter assessment you will need the same equipment mentioned above. For a limiter it's key to start the assessment WITHOUT a warm-up!

Essential equipment:

- A well placed Moxy Monitor
- Cycle ergometer or treadmill
- Data recording device (i.e. a Garmin)

Additional equipment:

- Heart rate monitor

Test Guidelines:

- Perform at consistent time of day
- Stay hydrated and normally fed
- Continue until voluntary exhaustion

Interpret the Results

After completing the test, analyze SmO2 changes during exercise and recovery (for more detail see 5-1-5 interpretation guide) to identify:

Oxygen delivery limitations

- This can come in the form of limited pulmonary or cardiovascular function.
  - A pulmonary limitation can be identified as:
    - Continually increasing SmO2 during rest periods
    - Continually decreasing SmO2 during work (in the later stages of the test)
    - Increases in total hemoglobin (THb) during work intervals
    - It's HIGHLY recommended to confirm a pulmonary limitation with pulmonary function testing
  - A cardiac limitation can be identified as:
    - Continually decreasing SmO2 during rest periods (in the later stages of the test)
    - Continually decreasing SmO2 during work (in the later stages of the test)

Oxygen utilization limitations

- This results in an inability to decrease SmO2 during high exercise intensities or a muscle limitation.
  - A muscle limitation can be identified as:
    - An inability to decrease SmO2 during high workloads below 50%

Performance Implications

Identifying a limiter can help to change how training is completed.

- For a pulmonary limitation, the athlete could complete hard start intervals.
- For a cardiac limitation, the athlete could complete heat training OR slow start intervals.
- For a muscle limitation, the athlete could complete a repeat desaturation protocol (essentially, sprint interval training to decrease SmO2 as fast as possible).

Precise limiter identification enables:

- Targeted training interventions (how can you change an athlete's training to target a limiter).
- More efficient performance improvements - by targeting a limiter you are able to address the rate-limiting step in their performance.
- Customized athlete development strategies

How to Determine Training Readiness with Moxy Monitor

A key aspect of training that many athletes aren't paying enough attention to is a proper warm-up and whether they are ready to train or not (i.e. training readiness).

A proper warm-up is key to preparing the body for the upcoming work of training and racing, as well as properly absorbing the work that is being done. The addition of tracking SmO2 will help to optimize your warm-up and give indications of training readiness. Outlined below is how to determine training readiness with Moxy Monitor.

How to Optimize Warm-up with Moxy

Have you ever wondered if you're warming up the right way? Most athletes guess when their body is ready for a workout. But with Moxy Monitor, you don't have to guess. Moxy shows you exactly how much oxygen is in your muscles, so you know when you're properly warmed up and ready to perform at your best.

There are two phases to an optimal SmO2 warm-up: the cardiovascular preparation phase and the muscle preparation phase.

GOAL: to increase SmO2 as high as possible without inducing fatigue.

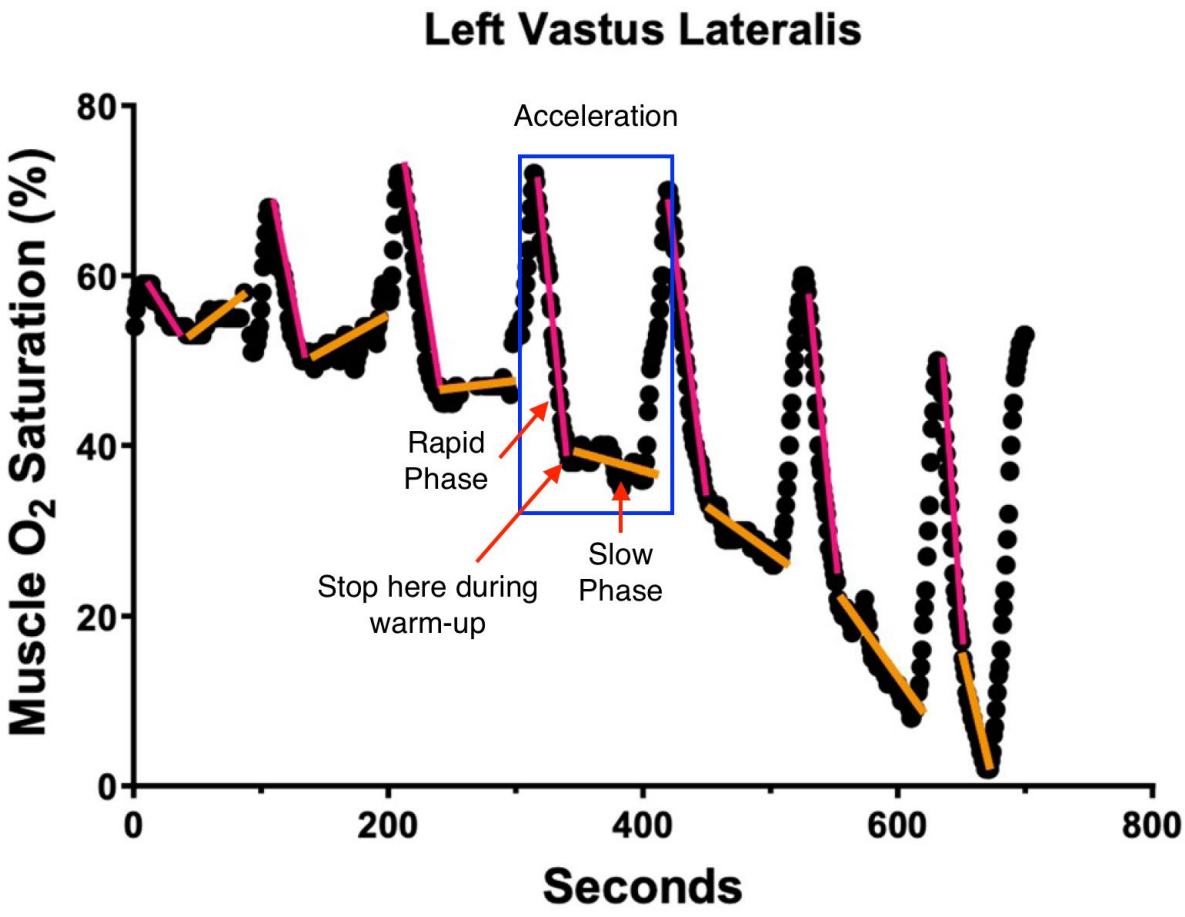
Cardiovascular Preparation Phase

The cardiovascular preparation phase involves low intensity activity completed in a step-wise fashion. I like to start with 75% of first threshold for 5 minutes and increase to 85% of first threshold for another 5 minutes.

What I am looking for in this phase is that heart rate increases, and SmO2 initially decreases then gradually rises. IF SmO2 goes down and stays flat, then you may be going too hard for SmO2 to increase. In this case, I suggest reducing intensity during the following days warm-up to see if you can elicit an increase in SmO2. This increase in SmO2 indicates that the cardiovascular system is delivering more oxygen than the muscle needs, essentially we are priming the pump to deliver enough oxygen when we start the next phase.

Muscular Preparation Phase

The next phase is muscular preparation. This involves accelerations, also known as repeat desaturation. This is where an athlete accelerates or increases power output to a point where SmO2 decreases. There are two acute phases to SmO2 decreasing: a rapid phase where SmO2 falls rather quickly and then a slow phase where SmO2 begins to plateau. During your acceleration, it's time to stop when SmO2 starts to plateau!



If you're monitoring SmO2, it will look something like this: 65%, 60%, 50%, 40%, 35%, 30%, 28%, 27%, 26%. When SmO2 stops decreasing as rapidly, this is when you stop. And by stop I mean COMPLETELY slow down and stop. Rest with your leg in the same position, and wait until SmO2 reaches a peak.

Then, repeat the acceleration but a little bit harder. When you reach the

beginning of a plateau, STOP again, and wait until SmO2 reaches another high. Repeat this process until SmO2 reaches the same high twice in a row.

How to Create an Optimal Warm-up Using Moxy

A good warm-up helps you perform better and get more out of your training. Moxy Monitor shows you exactly how well your muscles are warmed up by measuring muscle oxygen levels (SmO2). Here's how to use Moxy to optimize your warm-up routine.

Two Phases of an Optimal Warm-up

Cardiovascular Prep Phase

Start with easy exercise to increase cardiovascular system activity and oxygen flowing to your muscles. During this phase:

- Exercise at 75% of your first threshold for 5 minutes
- Then increase to 85% for another 5 minutes
- Watch your SmO2 numbers - they should drop slightly at first, then rise
- If SmO2 stays low, you're working too hard - ease up next time

Muscle Prep Phase

Now it's time for short bursts of harder effort:

- Do brief **accelerations (these are increased effort not all out)** until your SmO2 drops and levels off
- Rest until your SmO2 rises and levels off
- Repeat this pattern
- Stop when your resting SmO2 hits the same high point twice in a row

Remember: You're not trying to wear yourself out. The goal is to get your SmO2 as high as possible without accumulating fatigue.

Sample Warm-up Plan

Part 1: Cardiovascular Prep

- 5 minutes easy (40-55% of FTP)
- 5 minutes medium (50-65% of FTP)
- 1 minute very easy (0-25% of FTP)

Part 2: Muscle Prep

Do 5 rounds of:

- 20 seconds work
- 60 seconds rest
- Increase effort each round from 120% to 160% of FTP

By following these steps and watching your Moxy readings, you'll know exactly when your body is ready for a great workout.

Take Your Training to the Next Level

Using Moxy to guide your warm-up takes the guesswork out of training. Instead of wondering if you're ready to train, you'll know for sure. A proper warm-up means better workouts, faster recovery, and reduced risk of injury.

How to Evaluate Training Readiness with Moxy

Ever had those days when you're not sure if you should train hard or take it easy? Now, there's a better way than just guessing. Moxy Monitor shows you exactly how your muscles are responding to exercise, so you can make smarter training decisions. Here's how to use Moxy to check if your body is ready for today's workout.

What to Look for During Your Warm-up

Remember: The goal of your warm-up is to get your SmO2 as high as possible without tiring yourself out. This helps prime your muscles with as much oxygen as possible before your workout begins.

After you complete your warm-up, there are three important numbers to note:

1. Highest SmO2: Shows how well your heart and blood vessels deliver oxygen
2. Lowest SmO2: Shows how well your muscles use oxygen
3. The difference between the high and low: Shows how well these systems work together

How to Make Training Decisions

Compare today's difference between differences measured on previous days:

- Lower than usual? Consider an easier workout.
- Same as usual? Train normally.

- Higher than usual? You can train harder if you want to, or stick to your plan.

Why This Matters

Checking your Moxy numbers takes the guesswork out of training. Instead of wondering how hard to push yourself, you'll have clear data to guide your decision. This helps you:

- Train at the right intensity
- Avoid overtraining
- Make the most of your good days
- Prevent setbacks on tough days

How to Adjust Training Intensity in Real-time with Moxy Monitor

A proper warm-up and determination of training readiness gives us an idea of HOW we can train on a given day but we also need to consider our bodies ability to output mechanical force (power or speed) and how that changes on a daily basis.

Sometimes we may feel really good but for some reason we just don't have our "normal power output", other days we feel good and this correlates with much higher force generation ability. The point, is that mechanical output can be HIGHLY variable day to day, so using SmO2 can help us to adjust our force output in response to what our physiology is telling us. But we can't just rely on an SmO2 number. We have to watch what is happening to SmO2 at a given steady load (i.e. SmO2 response).

Understanding SmO2 Responses During Training

Professional athletes and coaches know that training at the right intensity is crucial for optimal results. Moxy Monitor helps you identify these training zones by measuring muscle oxygen saturation (SmO2) in real time. Here's how to interpret what your SmO2 readings mean during exercise.

What SmO2 Tells Us

SmO2 readings show the balance between two key systems:

- Your cardiovascular system's oxygen delivery
- Your muscles' oxygen utilization

By watching how SmO2 responds to steady exercise loads, you can identify which training zone you're in.

Three Key SmO2 Patterns

When exercising at a steady intensity, your SmO2 will follow one of three patterns:

Rising SmO2

- What it means: You're working below your first threshold
- This is your aerobic/endurance training zone

Dropping, then Leveling Off

- What it means: You're working between your first and second threshold
- This is your tempo/threshold training zone

Continuously Dropping

- What it means: You're working above your second threshold
- This is your high-intensity training zone

Practical Application

These SmO2 patterns provide immediate feedback about your exercise intensity. By monitoring these responses regularly, you can:

- Confirm you're training in the right zone
- Make immediate adjustments to exercise intensity when needed
- Better understand how your body responds to different training loads

Understanding these SmO2 patterns helps ensure every training session serves its intended purpose, leading to more effective and efficient training outcomes.

How to Optimize Zone 2 Training with Moxy

Zone 2 training is essential for endurance athletes, but finding the right intensity can be challenging. Moxy Monitor removes the guesswork by showing you exactly where your Zone 2 training should be. Here's how to use SmO2 to dial in your Zone 2 intensity.

Understanding SmO2 in Zone 2

When exercising below your first threshold (upper limit of Zone 2), you'll notice one of two SmO2 patterns as you increase exercise intensity:

1. SmO2 increases steadily
2. SmO2 stays high with minimal changes

Your first threshold occurs when SmO2 either:

- Shows a clear step down, the first step down in SmO2 when intensity is added
- Shifts from increasing to flat as exercise intensity increases

How to Find Your Zone 2

Follow these steps after completing your warm-up:

1. Start at a low intensity, well below your estimated first threshold.
2. Increase your workload by 20 watts every 3 minutes.
3. Watch how SmO2 changes during each 3-minute period.
4. Continue increasing workload until you see the first clear drop or shift from increasing to flat SmO2 that doesn't recover during the 3-minute period.
5. Use this SmO2 level as your target for Zone 2 sessions.

Training Application

By monitoring SmO2 during your Zone 2 sessions, you can:

- Confirm you're training at the right intensity
- Avoid the common mistake of pushing too hard
- Maintain consistent training quality

This data-driven approach ensures you get maximum benefit from every Zone 2 training session while preventing unintended high-intensity work. And the good news is, once you know your SmO2 numbers and you know your SmO2 response, you can start 20 watts below your expected training intensity, ride that, see the response then add the 20 watts, and see the response and you are good to go. If the response is different then you can adjust. Using the Moxy allows you to better understand YOUR training response and gives you confidence in your decision making during training!

How to Optimize Threshold Training with Moxy

Threshold training is critical for endurance performance, but finding the right intensity can be challenging. Moxy Monitor provides precise, real-time feedback to help you target your second threshold on any given day.

Understanding SmO2 at Threshold

When exercising near your threshold, SmO2 behaves in two distinct ways:

- Below second threshold: SmO2 decreases initially, then stabilizes

- Above second threshold: SmO2 continuously decreases to a minimum value. Knowing your minimum value will help you know when you are close to failure!

Finding Your Second Threshold

To identify your threshold:

1. Start at a moderate intensity (Above estimated first threshold but below second threshold)
2. Gradually increase exercise load (20 watts every 3 minutes)
3. Watch for the moment SmO2:
    - Stops establishing a steady state
    - Then begins continuously decreasing OR levels off without further decline

The first exercise intensity where this occurs is your threshold for that day!

Applying Threshold Training

Once you've found your threshold point:

- Adjust speed and power to maintain the intensity where SmO2 stays stable but any increase would result in SmO2 continually declining.
- Use Moxy for real-time feedback during your workout

Why This Matters

Precise threshold training leads to:

- More effective workouts
- Better performance gains
- Consistent training intensity

How to Optimize Interval Training with Moxy

High-intensity interval training is a powerful performance tool. Moxy Monitor offers real-time insights to help you design more effective interval training workouts by tracking muscle oxygen saturation (SmO2).

How SmO2 Behaves During Interval Training

At exercise intensities above your second threshold, SmO2 will continually decrease (even given a steady power output). The rate of decrease is based on exercise intensity. The higher the intensity the more rapidly SmO2 will decrease.

But SmO2 can only decrease to a certain point.

In order to create effective interval training you need to determine the point where SmO2 continually decreases (See How to Optimize Threshold Training with Moxy) for more details.

Then determine what the lowest point attainable is, this low point can be determined during your warm-up.

Interval Training Strategies

Now you can use SmO2 to:

- Pace intervals to reach lowest oxygen saturation in a specific time
- End intervals at your lowest SmO2 point
- Customize rest periods based on oxygen recovery

Key Benefits

By tracking SmO2, you can:

- Customize interval training precisely
- Prevent over- or under-training
- Maximize physiological adaptation
- Know what SmO2 to aim for during your interval training workouts, and modify exercise intensity accordingly.

There are a lot of different ways you can modify training in response to SmO2. Now, you have a picture of how you can use your Moxy data to adjust exercise intensity on a daily basis!

The bottom line: you can use SmO2 to modify your easy, moderate, and high intensity work for more optimal exercise response.

Conclusion: Precision Performance through Physiological Insights with Moxy Monitor

Moxy Monitor represents a new approach to endurance training - transforming how athletes and coaches understand and optimize performance. By providing real-time, muscle-specific oxygen saturation data, Moxy moves beyond traditional training methods, offering a personalized, scientifically grounded path to athletic excellence.

The power of Moxy lies in its ability to provide physiological insights across three training integrations:

1. Comprehensive Physiological Assessment
   - Identify individual physiological characteristics
   - Determine precise training thresholds and zones
   - Determine physiological limiters of performance
2. Dynamic Training Readiness
   - Evaluate daily physiological preparedness
   - Optimize warm-up protocols
   - Make informed training intensity decisions
3. Real-Time Performance Optimization
   - Adjust training intensities based on immediate physiological feedback
   - Customize interval and zone training
   - Maximize training efficiency and adaptation

By integrating Moxy Monitor into your training methodology, athletes and coaches can:

- Minimize guesswork
- Reduce injury risks
- Accelerate performance improvements
- Develop truly individualized training strategies

The future of endurance training is not about training harder but training smarter. Moxy Monitor provides the technological bridge between traditional coaching wisdom and cutting-edge physiological science, empowering athletes to unlock their true performance potential.