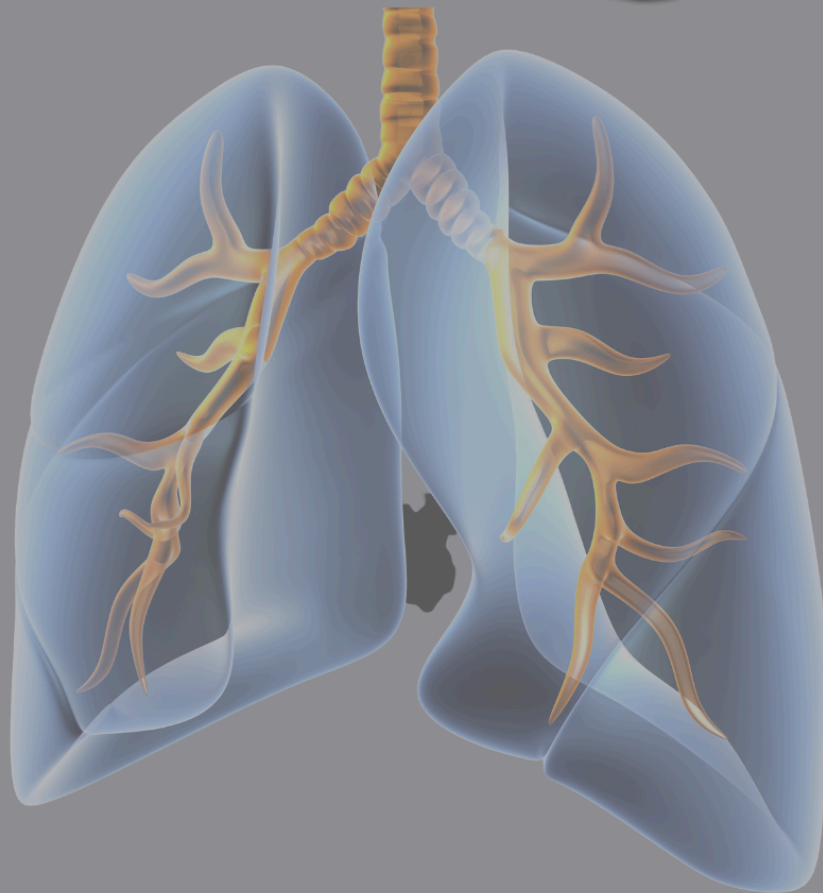




STRENGTH TRAINING SYSTEMS
RIDE HARDER • RIDE FASTER • RIDE STRONGER

BETTER BREATHING

FOR **MTB**



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Disclaimer

You must get your physician's approval before beginning this exercise program. These recommendations are not medical guidelines but are for educational purposes only. You must consult your physician prior to starting this program or if you have any medical condition or injury that contraindicates physical activity. This program is designed for healthy individuals 18 years and older only.

The information in this report is meant to supplement, not replace, proper exercise training. All forms of exercise pose some inherent risks. The editors and publishers advise readers to take full responsibility for their safety and know their limits. Before practicing the exercises in this book, be sure that your equipment is well-maintained, and do not take risks beyond your level of experience, aptitude, training and fitness. The exercises and dietary programs in this book are not intended as a substitute for any exercise routine or treatment or dietary regimen that may have been prescribed by your physician.

Don't lift heavy weights if you are alone, inexperienced, injured, or fatigued. Don't perform any exercise unless you have been shown the proper technique by a certified personal trainer or certified strength and conditioning specialist. Always ask for instruction and assistance when lifting. Don't perform any exercise without proper instruction. Always do a warm-up prior to strength training and interval training. See your physician before starting any exercise or nutrition program. If you are taking any medications, you must talk to your physician before starting any exercise program, including this workout. If you experience any lightheadedness, dizziness, or shortness of breath while exercising, stop the movement and consult a physician.

You must have a complete physical examination if you are sedentary, if you have high cholesterol, high blood pressure, or diabetes, if you are overweight, or if you are over 30 years old. Please discuss all nutritional changes with your physician or a registered dietician. If your physician recommends that you don't use this workout, please follow your doctor's orders.

Please note that some breathing techniques in this manual can exacerbate certain medical conditions. If you have any health issues or medical conditions please check with your doctor before using the breathing drills and workouts in this manual.

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Introduction

Thanks for signing up for this free mini-course on better breathing for MTB. As a coach who has been working with riders at all levels since 2005, nothing has helped the riders I've trained more than helping them get connected to their breathing.

While everyone breathes, few of us consciously use our breathing to control how we feel, perform and recover. This is unfortunate because it is a birthright that we have forgotten how to use. By taking control of your breathing you are tapping into the true power of what it means to be a Human Being.

Your breathing is the bridge between your conscious and subconscious nervous systems. Being able to influence your biology on a cellular level is what breathing can do for you, allowing you to improve inflammation, your immune system and blood pH.

Your breathing is also the key leverage point for your performance, both in the moment and with how you use it during training. Through focused use of your breathing during your rides can improve power and endurance while also moving more efficiently, which leads to better skills. Conscious use of your breathing during your workouts can also improve your hematocrit levels, CO₂ tolerance and the strength of your respiratory muscles.

As you can see, you have a lot to gain by simply re-taking control of what is yours already - your breathing. Better breathing will improve every aspect of your health and performance, both on and off the bike. If you put in the time over the next few weeks you'll see returns on your investment that will keep you motivated to keep up with your practice.

In this free program you will find the tools you need to help you start the journey towards better breathing. You will find an assessment to help you evaluate your breathing, information to help you better understand what better breathing is and how to use it and a drill you can use to help improve your breathing.

If you enjoy this free mini-course and want to take your breathwork journey even further then be sure to check out my Better Breathing for MTB Program. In it I share more drills you can use along with specific workouts and training/ riding strategies you can use to turn your breathing into a powerful tool. You can learn more at www.bikejames.com/betterbreathingprogram.

I hope you enjoy this free mini-course and learn something that impacts your health and/ or performance. And if you have any questions or want to let me know how this mini-course has helped you please send me an email, I always love to hear from riders like you who are in pursuit of excellence on and off the bike.

Until next time...

Ride Strong,

James Wilson
MTB Strength Training Systems

How To Use This Manual:

1. Read the Importance of Better Breathing.
2. Take the Assessment.
3. Read the What Do The Assessments Mean section.
4. Read the Breathe Light Drill instructions.
5. Do your first Breathe Light session.
6. Read the Mouth Taping section.
7. Start taping your mouth at night when you sleep.
8. Try to use Nose Breathing as much as possible during the day and when working out/ riding.

Importance of Better Breathing for MTB

[Click Here to Watch a Video Going Over This Handout](#)

Top 3 Benefits of Better Breathing

- Better Performance: Increased muscle oxygenation, Improved movement efficiency, Decreased breathlessness during training and performing
- Better Recovery: Better sleep, decreased inflammation, improved blood pH
- Better Mindset: Better control of stress, Better focus and concentration, Less performance related anxiety

This makes Better Breathing the one lever you can pull that will improve everything else

Optimal breathing is transformational but it isn't rocket science

Common Breathing Dysfunctions

- Overbreathing
- Vertical Breathing
- Reverse Breathing
- Sleep Apnea

Importance of CO₂ for Better Breathing

- Body monitors CO₂ levels to tell it when it "needs" to breathe
- CO₂ is needed to offload oxygen from red blood cells (Bohr Effect)
- Chronically lowered levels of CO₂ from overbreathing leads to reduced CO₂ tolerance, which is responsible for the panicky "I NEED TO BREATHE" feelings you get during hard efforts

Better Breathing has 3 elements:

1. Biochemical - What is the impact on blood gasses and pH levels?
2. Biomechanical - What muscles are being used to breathe?
3. Stress Response - What is the impact on stress and anxiety levels?

Based on this, Better Breathing consists of 3 things:

1. Nasal Breathing
2. Breathing with the diaphragm
3. Matching your breathing to your effort level

1. Nasal Breathing

- Gets NO₂ into the bloodstream, helping to keep the blood vessels dilated
- Cleans the air going into the lungs
- Conditions the air going into the lungs (temperature and humidity)

2. Breathing With The Diaphragm

- Draws air in into the bottom of the lungs where there is more blood for gas exchange
- Triggers a parasympathetic response, helping to control anxiety and arousal levels
- Allows bracing muscles to brace instead of working to help breathe

3. Matching your breathing to your effort level

- Avoids overbreathing and blowing off too much CO₂
- Helps control anxiety and arousal levels
- Anticipating hard efforts and increasing breathing before you need to

Two Ways to Improve

1. Daily Practices - Breath Light/ Mouth Taping/ Breathing Drills
2. Workout Practices - CO₂ Tolerance Workouts/ Breathing Gears/ Pre-Workout and Pre-Comp

Note on Mouth Taping: If you wake up at night or in the morning with a dry mouth then you are mouth breathing at night. This means that you could also benefit from taping your mouth closed at night in order to encourage nose breathing.

Better Breathing Assessments

Date: _____

[Click Here For A Video Of How To Do The Assessments](#)

Breathes Taken In 1 Minute: _____

Optimal: >5

Average: 6-8

Overbreathing: 10+

BOLT Score: _____

>25 seconds = Sub-Optimal

25-40 seconds = Average

40+ seconds = Optimal

Hands On Assessment

Nose Only	Supine	Seated	Kneeling	Standing	Other
High/ Low 1 Belly					
High/ Low 2 Chest					
Superman Lower Ribs					
Low Back (Optional)					

Notes:

What Do The Assessments Mean?

[Click Here To Watch A Video Going Over What The Assessments Mean](#)

In order to improve your breathing, you must first know how you are doing with it. Taken together these three groups of tests give us a good assessment of how efficiently you are breathing and where you can look to improve.

Breaths Taken In 1 Minute: To perform this assessment sit comfortably and when you are relaxed count how many breaths you take in 1 minute. Don't try to control your breathing in any way, just relax and breathe normally.

This assessment looks at your basic breathing efficiency. At rest you should be taking less than 10 breaths per minute, preferably 6 or fewer. Higher than this indicates either stress, so you're not truly at rest, or some breathing inefficiencies.

Overbreathing at rest also means that it is highly likely that you are overbreathing when you are training and riding. Overbreathing is metabolically inefficient and also blows off too much CO₂, which can cause its own problems.

BOLT (Body Oxygen Level Test) Score: To perform this assessment sit comfortably and when you are relaxed hold your breath on an exhale. This should be a comfortable, normal exhale and not a full emptying of the lungs. Time how long it takes to start getting the "I need to breath" feeling. This isn't a max hold so you should be able to resume breathing normally when you are done.

This test looks at your CO₂ tolerance and how sensitive you are to rising levels of it in your bloodstream. This is what triggers the panicky "I can't

catch my breath” feeling that we all hate so much and the more sensitive you are to rising CO2 the more easily you can trigger this feeling.

One of the most common causes of being sensitive to CO2 is overbreathing, where you are blowing out more CO2 than needed and creating a chronically lower level of it in your blood. This creates a new setpoint for your body at the lower levels, which means that it takes less of a rise in CO2 than normal to trigger the feeling.

Hi-Low & Superman Hands On Test: To perform this assessment sit comfortably and when you are relaxed place one hand on your belly about 1 inch above your belly button and the other hand on your chest. Observe how your hands are moving as you breathe. You should feel the hand on your belly pushing out as you breathe in and collapsing in as you breathe out. You should also feel little to no movement from the hand on your chest.

Next, place your hands on your sides just below the bottom rib. As you observe how your hands are moving now you should feel them pushing out as you breathe in and coming in as you breathe out.

For both of these positions, score yourself on a 3 point scale. 1 means that you aren't doing what I described and can't really figure out how to make yourself do it (yet). 2 means that you aren't doing what I described but you can make yourself do it if you focus on it. 3 means that you were already doing what I described or just needed to make some minor adjustments.

These two assessments look at your breathing mechanics and how you are creating your breath. Optimally you want to breathe with the diaphragm, which results in the core on all sides feeling pressure pushing out as you breathe in. This pressure goes away on the exhale, which results in a 360 degree breath “into the belly”.

If you don't breathe like this then you are using less efficient muscles to breathe and you are not letting the diaphragm trigger the “rest and relax” signal your body needs to properly manage stress. There is also evidence

that your movement quality is linked to your breathing quality, with one study seeing 87.5% of participants who passed the Functional Movement Screen being diaphragmatic breathers.

If you failed all 3 assessments - which is common so don't worry if you did - then the Breathe Light Exercise you'll learn next is the perfect place to start.

Breathe Light Instructions

[Click Here For A Video Overview Of These Instructions](#)

Sit or lie down and get comfortable.

If you are sitting then you want to feel as if a string was attached to the top of your head and it was lifting your head to the ceiling. As you do this you should feel the space between your ribs expanding.

If you are lying down then place your feet flat on the floor with them pulled in towards the butt as if you are going to do a Bridge.

Once you are comfortable you will start the Breathe Light exercise. Start by observing your breath as it goes in and out of the nose. Feel the air coming in and out of the nostrils. You can also put your hands in the Hi-Low or Superman position from the assessments to give you some feedback on where you're driving your breath from.

Once you are observing your breath you want to make sure each breath is following some basic guidelines:

Quiet - Your breath should be so quiet that you can't hear it.

Soft - Your breath should be so soft that it wouldn't disturb a feather that was placed under your nose.

You also want to make sure that on the Inhale you breath **Deep** - there shouldn't be any chest movement as your breath is drawn deep into the lower lungs.

And on the Exhale you want your breath to be **Relaxed** - there should be a total body feeling of relaxation as you exhale.

Observe your breathing following these guidelines. When you get it right you will feel a slight Air Hunger, as if you want to take a little deeper breath, but it is not stressful as you are able to maintain your relaxed feeling on the exhale.

Follow your breathing for the recommended amount of time but feel free to go longer if you like, you may find it very relaxing and worth the extra time spent in managing stress and helping you stay focused in your everyday life.

Mouth Taping

[Click Here To Watch A Video On Mouth Taping](#)

Something that you can do that will greatly improve your breathing and your health is to tape your mouth at night when you sleep. This prevents you from switching to mouth breathing while you sleep and forces you to breathe through your nose.

Mouth breathing when you sleep can lead to snoring and sleep apnea, both of which are terrible for your sleep quality. Mouth breathing also leads to a dry mouth, leading to the need to wake up and drink something. It also leads to the need to urinate more often as a result of the kidney's response to the chemical changes brought on by mouth breathing, leading to more disruptions in your sleep. It is no secret that your sleep quality is vital for your overall health and performance, which means that anything you can do to help it will help your quality of life.

Mouth breathing at night will also make it harder to form better habits while you are awake. Spending 6-8+ hours mouth breathing while you sleep and then trying to nose breathe more when you are awake is sending the body mixed messages and makes it harder to ingrain the nose breathing habit.

It is a simple thing that can have powerful effects on your sleep and breathing, making something you should be doing starting tonight.

I understand that the idea of taping your mouth when you go to bed might sound crazy. I was one of those people and resisted the idea for a long time. But I eventually found a method that let me easily do it and feel confident I wouldn't wake up struggling to breathe.

By using a piece of regular Scotch Tape (or the equivalent you have on hand in the house) I was able to take my mouth and be able to talk and breathe if needed. Using a piece a little less than an inch long I could tape

my mouth in a way that left the sides open and acted as a gentle “reminder” to my lips to stay closed.

There are other solutions, including specific mouth tape made for sleeping, and they all work to some degree but I’ve found this simple trick to work best. You may wake up at first with the tape off and your mouth dry from mouth breathing but over time your body will adapt, just be patient and remember that it can take time to break habits that you’ve had for years.