

A man in a grey tank top and black shorts is running on a treadmill. He is wearing a cardio coaching device that includes a head-mounted sensor and a blue mouthpiece connected to a clear, flexible tube. The tube runs along the side of the treadmill and connects to a control unit. The background is a gym with various exercise machines.

CARDIOCOACH™

 **KORR™**
Medical Technologies Inc.

VO₂ MAX: THE ULTIMATE MEASURE OF FITNESS

A COMPLETE VO₂ FITNESS TEST CAN GIVE TRAINERS THE TOOLS TO SET REALISTIC GOALS AND ASSESS IMPROVEMENT.

Many people are inefficient exercisers, with no understanding of what heart rate, intensity or duration would best help them reach their specific goals such as fat burning, endurance training, or cardio conditioning.

VO₂ MAX

An initial VO₂ Max test can clarify the precise target heart rates that will enable each individual to exercise more effectively, with less fatigue and fewer injuries. Periodic retesting provides motivating feedback as the fitness program progresses. Studies show that previously sedentary people training at 75% of aerobic power for 30 minutes, 3 times a week over 6 months increase VO₂ Max an average of 15-20%.

ANAEROBIC THRESHOLD (AT)

Even though extensive training can sometimes cause an athlete to reach a plateau in VO₂ Max, he can still use his VO₂ Max test results to make further improvements in performance. This is accomplished as he pushes to increase anaerobic threshold (AT) and maintain that threshold for longer periods of time. This enhances both endurance and cardiovascular performance.

CALORIES BURNED

A VO₂ Max test determines the number of calories burned during every level of exercise. Additionally, CardioCoach PLUS and CardioCoach CO₂ measure a Resting Metabolic Rate. This is a scientific measurement of how many calories a person is burning during a day, a vital piece of information when designing a weight loss regimen.

"Experience has shown me that not knowing or guessing an athlete's AT can have disastrous results. At times, CardioCoach tests have shown actual AT measurements vastly different from the predicted calculations—calculations that would have led to racing at a rate on course to excessive fatigue and fuel depletion—race over, 6 months of training gone!"

CardioCoach gives me a precise and somewhat unique training method. My clients now have what was once reserved for the very best elite athletes, and consequently, an edge on their competition."

Michael Briant
Bodyology Exercise Science Studio
Columnist "Australian Triathlete Magazine"



VO₂ MAX TESTING WITH CARDIOCOACH

» MIXING CHAMBER TECHNOLOGY

A mixing chamber is considered the “Gold Standard” for VO₂ Max measurements. In the past, this system has been complicated and expensive, making it only practical to train professional athletes and for use in research departments. KORR advancements in technology make this equipment feasible for gym owners and trainers at any level of expertise to own.

» SELF CALIBRATING

Adjustments for barometric pressure, temperature, and humidity are key to an accurate VO₂ measurement. The CardioCoach measures these parameters during each routine calibration cycle, then automatically compensates to standard (STPD) conditions.

» SIMPLE

The CardioCoach has a simple user interface that assists the operator from start to finish. No training or certification is necessary.

» WORKOUTS

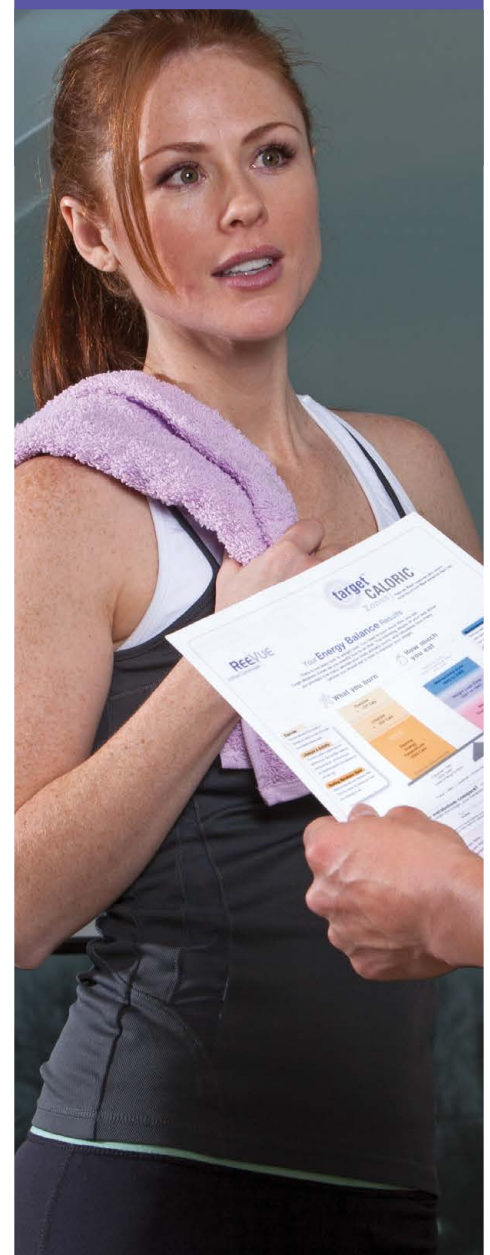
CardioCoach software is available to provide your clients with workouts at no additional cost to them. Pre-loaded plans will apply your client's test results to workouts designed to meet particular goals such as training for a race, cycling, or weight loss. The software will also guide trainers through designing customized workouts

» NO CONTRACTS

KORR does not lock customers in to ongoing service contracts.

» ZERO COST PER TEST OPTION

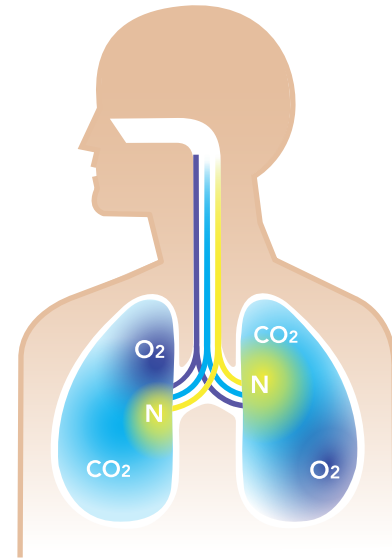
With its high quality reusable mask, KORR relieves customers of the burden of costly mask contracts for VO₂ testing. A single use mask is also available for clients to take home at a competitive price.



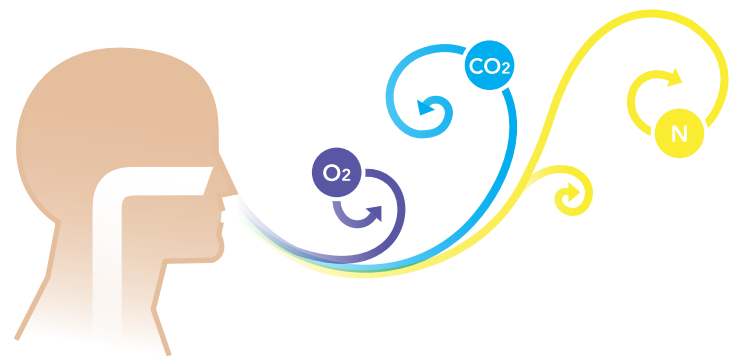
THE MIXING CHAMBER

KORR's Gold Standard Technology

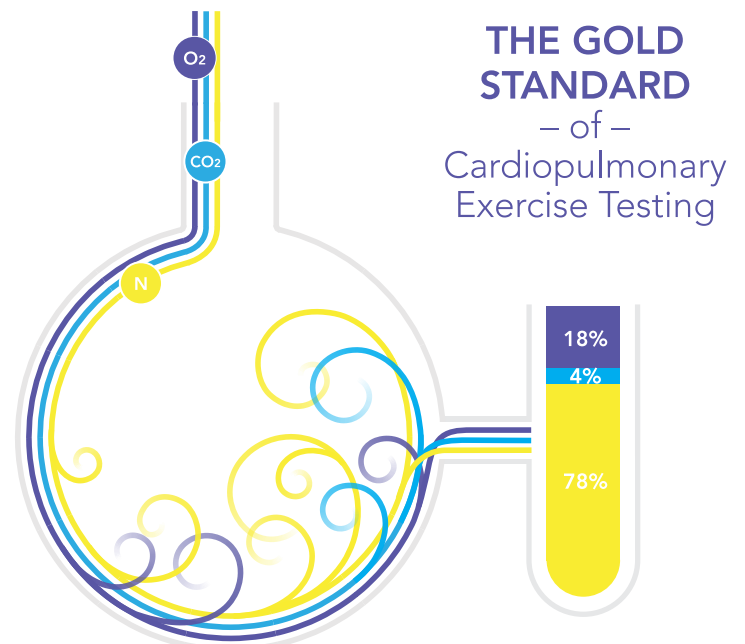
In the simplest of terms, to measure VO_2 Max, one must measure the percent of oxygen concentration in the gases a person exhales to determine how much was consumed by the body. But when you exhale, that oxygen concentration changes throughout the breath itself. This is because once you breathe a lung full of air, some of that air is actively being exchanged for CO_2 down in the alveolar, while some is sitting inactive in "dead space".



Technologies that measure O_2 at the mouth must plot a linear equation of each exhaled breath, then rely on a mathematical algorithm to determine the percentage of oxygen concentration. In clinical evaluations, these types of systems are always evaluated against the standard of a system with a mixing chamber.



A mixing chamber collects all the exhaled gases into a chamber where they can literally be mixed together. Then the evenly mixed gas can be sampled to actually measure the oxygen percentage. This is considered to be much more precise¹ and is why research and ICU grade metabolic carts utilize mixing chamber technology. Mixing chambers are referred to as the "Gold Standard" of Cardiopulmonary Exercise Testing.



(1) Meyers, Jonathan. Essentials of Cardiopulmonary Exercise Testing. Champaign, IL: Human Kinetics, 1996, pg 68-69.

KORR OFFERS 3 DIFFERENT CARDIOCOACH MODELS

Multiple options allow you to select the model that best meets your needs.



CARDIOCOACH "THE ORIGINAL"

The CardioCoach is a revolutionary product that allows personal trainers and clubs to perform VO_2 Fitness Assessments that before have only been available at a University. The CardioCoach is all about simplicity. Simplicity of operation means any trainer can learn to perform a test in minutes. Simplicity of the reports means customers receive easy to understand results that define unique workout zones for endurance, fat burning, and cardio strengthening.

CARDIOCOACH PLUS "OUR BEST SELLER"

The CardioCoach PLUS combines the features of VO_2 fitness testing with Resting Metabolic Rate (RMR) Measurement. An RMR measurement uses oxygen consumed at rest to determine a person's caloric requirements for weight loss or maintenance. Facilities that offer nutritional counseling can add this very valuable assessment tool for only a slight increase in cost.

CARDIOCOACH CO_2 "THE EXPERT"

Much of the simplicity and affordability of the CardioCoach is due to the design that only analyzes oxygen consumption, the V-slope method. The CardioCoach CO_2 has the added hardware and complexity to support CO_2 analysis. A computer is required for viewing and printing the data. This product is an excellent option for the more technical user who wants to "play" with the data, compare AT detect methods, and who has the expertise to analyze raw data.

Which CardioCoach Model is right for you?	
I want simple to operate VO_2 testing. Multiple people at my facility should be able to run the test.	CardioCoach
I would like to offer both <ul style="list-style-type: none">• VO_2 Fitness Assessments• RMR testing	CardioCoach Plus
I would like to download workouts based on client's results. I would like to create my own customized workouts for my customers.	CardioCoach Monitor Software with any CardioCoach product
I studied exercise science in college I would like to view both CO_2 & O_2 data so I can make my own inferences. I want to use multiple methods to determine anaerobic threshold	CardioCoach CO_2

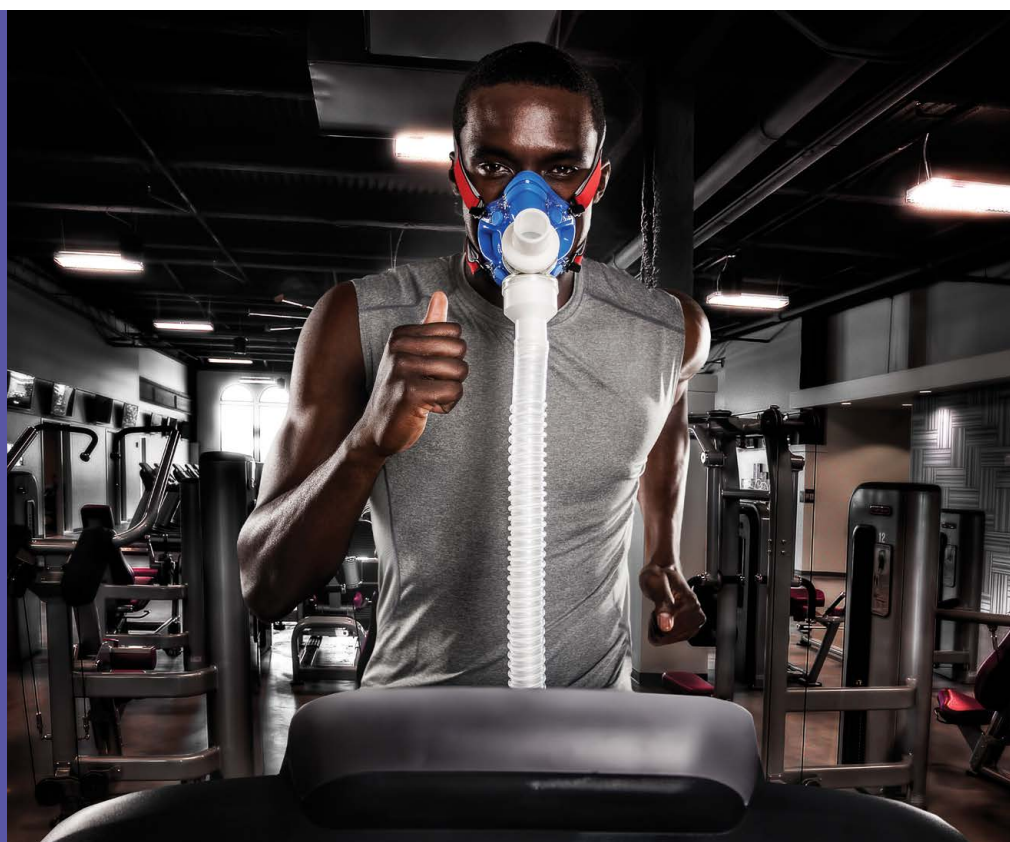
CARDIOCOACH SPECIFICATIONS

Measurement.....	Oxygen Uptake, expired gas analysis
Test duration	7 – 20 minutes
Dimensions.....	15" x 15" x 4" (W x L x H)
Weight.....	7 lbs 14 oz (3.5 kg)
Warranty.....	1 year manufacturer
Options.....	Roll cart, carrying case, laptop, software, heart-rate watches, TV monitor.
Outputs	VO ₂ Max
.....	Anaerobic Threshold (AT)
.....	Peak O ₂
.....	Predicted Peak O ₂ (SubMax Test)
.....	Calories Burned per Hour
.....	REE/RMR (PLUS and CO ₂ unit)
.....	RER (CO ₂ unit)

As a trainer for professional basketball athletes I've been using the CardioCoach for 10 years. There are other pieces of VO₂ test equipment out there, but through my research I've determined the CardioCoach to be the most reliable and valid. It is also very user friendly; for the most part all you have to do is hit start and it runs itself!

The CardioCoach allows me to be creative as a trainer and formulate a plan of action for how I want to train an athlete individually. It gives them confidence that I am directing this personally for them and not just taking a cookbook approach. The KORR CardioCoach has given us positive results, so we will definitely continue to utilize it.

Joe Rogowski MS
*Head Strength and Conditioning Coach
Houston Rockets Basketball*



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