



**ENERGIZE**

**PUT YOUR BODY TO THE TEST**

**OVER 500+ SPORTS TESTING AT ONE LOCATION**  
*(THE SCIENCE BEHIND SPORTS PERFORMANCE TESTING)*

**Energize Sports Performance Testing**





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### **WHAT IS ENERGIZE SPORTS PERFORMANCE TESTING?**

Energize Sports Performance Testing is a comprehensive turn-key sports performance testing studio that has been developed specifically to test athletes bodies to help identify weaknesses within their bodies to help them redirect their training efforts to improve their competition performance outcomes.

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### **WHAT IS ENERGIZE SPORTS PERFORMANCE TESTING?**

**Energize Sports Performance Testing** is a sports performance human analysis testing facility with over 75 unique testing devices that are able to accurately measure over 500+ specific measurement metrics within an athletes body.

It is the mission at Energize to help athletes jump higher, run faster and perform better by using all of the best science backed testing technology proven to help sports performance.

It's possible for each athlete's body to be tracked 24/7 using the latest in biometric tracking hardware to help both us and our athletes track their bodies performance compared to competition outcomes. From sleep tracking thru recovery we are able to track each athletes specific biometrics. Then, by identifying how much sleep a specific athlete needs to perform at their best during competition we are able to help them achieve the sweat spots for their own individual bodies performance.

The business of sports science testing is as complicated as the systems within the human body. Recognizing that your legs are fatigued may be obvious to an athlete, but understanding why they are is where sports science performance testing begins to takes over. Training too much may cause fatigue, but training to little can have the same effect, leaving the athlete guessing. There are over 47 miles of neurological pathways in the human body controlling each muscle and over 100,000 miles of arteries, capillaries, veins and blood vessels transporting blood to every muscle. This is not an accident, rather it was the result of thousands of years of evolution of human body.

To understand why your legs fatigue quickly for example, you must first understand all of the bodies systems required to run for long periods of time. Muscle mass, muscle density and muscle health are important and are among the first things you may need to explore. But, equally as important to those measurements is how much muscle is actively participating or neurologically connected to your brain, along with does your body transport oxygen in the red blood cells efficiently, does your body have adequate blood flow or circulation and finally what are your muscles glycogen/ATP storage levels and how are the respiratory muscles responding. All of these measurements are contributing factors to why your legs are fatigued, just to start the conversation.

Nearly all of the bodies systems are connected to each other throughout the human body. Systems are designed to support each other, but a breakdown in one can lead to others being over worked.

The simple answer to why your legs fatigue quickly may be over training or it may be a far more complex reason that will constantly hold back your improvements in sports performance until you find out why. That is why at Energize Sports Testing our slogan is "Put your body to the test"



## ENERGIZE MUSCLE MAPPING



### ENERGIZE SPORTS PERFORMANCE TEST - MUSCLE MAPPING

Muscle mapping analysis is a test that indicates how active the underlying muscle fibers are in relationship to their neuro connectivity response measurements. This test is typically performed to demonstrate to an athlete the visible differences of apposing muscles as well as other contributing muscle groups. For example, by mapping the muscles in an athletes legs we are able to more accurately determine which specific muscle groups contribute more and which contribute less in their athletic performance. This information can prove to be valuable for trainers and coaches to tailor lifting and training to help address these imbalances.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

- ⇒ *Muscles - Hamstrings*
- ⇒ *Muscles - Quadriceps*
- ⇒ *Muscles - Calves*
- ⇒ *Muscles - Hip Flexors*
- ⇒ *Muscles - Lower Back*
- ⇒ *Muscles - Trapezius*
- ⇒ *Muscles - Latissimus Dorsi*
- ⇒ *Muscles - Biceps*
- ⇒ *Muscles - Triceps*
- ⇒ *Muscles - Deltoids*
- ⇒ *Muscles - Abs*

#### TESTING PROTOCOL LEVELS:

- Basic Level Testing** - One Muscle Group
- Intermediate Level Testing** - Two Muscle Groups
- Advanced Level Testing** - Three Muscle Groups
- Expert Level Testing** - Four Muscle Groups

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## ENERGIZE MUSCLE CONNECTIVITY



### ENERGIZE SPORTS PERFORMANCE TEST - MUSCLE CONNECTIVITY (EMG)

Muscle connectivity is a much more complex test that indicates precisely how active the underlying muscle fibers are in relationship to their neuro connectivity response measurements. This test is typically performed to demonstrate to an athlete the exact electrical output of each muscle. For example, by measuring the electrical output of the muscles in an athletes legs we are able to more precisely measure specific muscle forces and strength work loads during an active training session. This information can prove to be extremely valuable for trainers and coaches to tailor lifting and training to help address strength & imbalances.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

- ⇒ *Muscles - Hamstrings*
- ⇒ *Muscles - Quadriceps*
- ⇒ *Muscles - Calves*
- ⇒ *Muscles - Hip Flexors*
- ⇒ *Muscles - Lower Back*
- ⇒ *Muscles - Trapezius*
- ⇒ *Muscles - Latissimus Dorsi*
- ⇒ *Muscles - Biceps*
- ⇒ *Muscles - Triceps*
- ⇒ *Muscles - Deltoids*
- ⇒ *Muscles - Abs*

#### TESTING PROTOCOL LEVELS:

- Basic Level Testing** - Unavailable
- Intermediate Level Testing** - One Muscle Groups
- Advanced Level Testing** - Two Muscle Groups
- Expert Level Testing** - Three Muscle Groups

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## ENERGIZE MUSCLE DENSITY SCAN



### ENERGIZE SPORTS PERFORMANCE TEST - MUSCLE DENSITY SCAN

Muscle density scanning is a test that indicates the quality of the underlying muscle and percentage of body fat located around the muscle. This test is typically performed to demonstrate to an athlete the visible differences and quality of apposing muscles as well as other contributing muscle groups. By scanning the muscle density in an athletes legs for example we are able to more accurately determine what the percentage and quality of an athletes muscle mass compared to the percentage of fat. This information can prove to be valuable for trainers and coaches to tailor lifting and training to help identify and address these imbalances.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

- ⇒ *Muscles - Hamstrings*
- ⇒ *Muscles - Quadriceps*
- ⇒ *Muscles - Calves*
- ⇒ *Muscles - Hip Flexors*
- ⇒ *Muscles - Lower Back*
- ⇒ *Muscles - Trapezius*
- ⇒ *Muscles - Latissimus Dorsi*
- ⇒ *Muscles - Biceps*
- ⇒ *Muscles - Triceps*
- ⇒ *Muscles - Deltoids*
- ⇒ *Muscles - Abs*

#### TESTING PROTOCOL LEVELS:

- Basic Level Testing** - One Muscle Group
- Intermediate Level Testing** - Two Muscle Groups
- Advanced Level Testing** - Three Muscle Groups
- Expert Level Testing** - Four Muscle Groups

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## ENERGIZE MUSCLE OXYGEN SCAN



### ENERGIZE SPORTS PERFORMANCE TEST - MUSCLE OXYGEN ANALYSIS

Muscle oxygen analysis is a test that indicates how efficient the underlying muscle fibers are in absorbing and consuming oxygen. This test is typically performed to demonstrate to an athlete the visible differences of the oxygen saturation within each specific muscle. Our muscle oxygen monitor is used to measure muscular oxygen saturation during exercise or at rest. This device uses NIRS technology. NIRS stands for near infrared spectroscopy, which means that light is emitted close to the infrared spectrum, which is completely harmless to health, and the reflected light is measured. By measuring the oxygen saturation within the muscles in an athlete's legs we are able to more accurately determine how effectively each muscle is consuming and using oxygen.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

- ⇒ *Muscles - Hamstrings*
- ⇒ *Muscles - Quadriceps*
- ⇒ *Muscles - Calves*
- ⇒ *Muscles - Hip Flexors*
- ⇒ *Muscles - Lower Back*
- ⇒ *Muscles - Trapezius*
- ⇒ *Muscles - Latissimus Dorsi*
- ⇒ *Muscles - Biceps*
- ⇒ *Muscles - Triceps*
- ⇒ *Muscles - Deltoids*
- ⇒ *Muscles - Abs*

#### TESTING PROTOCOL LEVELS:

- Basic Level Testing** - One Muscle Group
- Intermediate Level Testing** - Two Muscle Groups
- Advanced Level Testing** - Three Muscle Groups
- Expert Level Testing** - Four Muscle Groups

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.





## ENERGIZE MUSCLE BIOFEEDBACK



### ENERGIZE SPORTS PERFORMANCE TEST - MUSCLE BIOFEEDBACK

Muscle biofeedback uses **surface electromyography (sEMG)** instrumentation to measure the electrical activity produced by targeted muscle groups during training. Decreased EMG activity and neuromuscular control inhibit athletes' ability to correct imbalances. The primary rationale for the use of muscle biofeedback in sports testing is that monitoring voluntary muscle activation improves accuracy and quality of performance and helps athletes make faster progress when addressing imbalances. When athletes use their bodies electrical system early on through volitional contraction, they gain both motor control and strength, as well as re-educate the neuromuscular pathways. By communicating muscle activity in real time, biofeedback enables the reacquisition of athletic performance.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

- ⇒ *Muscles - Hamstrings*
- ⇒ *Muscles - Quadriceps*
- ⇒ *Muscles - Calves*
- ⇒ *Muscles - Hip Flexors*
- ⇒ *Muscles - Lower Back*
- ⇒ *Muscles - Trapezius*
- ⇒ *Muscles - Latissimus Dorsi*
- ⇒ *Muscles - Biceps*
- ⇒ *Muscles - Triceps*
- ⇒ *Muscles - Deltoids*
- ⇒ *Muscles - Abs*

#### TESTING PROTOCOL LEVELS:

- Basic Level Testing** - One Muscle Group
- Intermediate Level Testing** - Two Muscle Groups
- Advanced Level Testing** - Three Muscle Groups
- Expert Level Testing** - Four Muscle Groups

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## ENERGIZE MUSCLE FATIGUE



### ENERGIZE SPORTS PERFORMANCE TEST - MUSCLE FATIGUE

Muscle fatigue testing is a two or three phase process with several levels that involve first testing baseline neural muscle biofeedback levels and then stimulating specific muscles using electrical muscle stimulation which simulates high intensity training. Once muscle stimulation is complete we are able to retest this same specific muscle to determine the increase/decrease in neural pathway output along with muscle fatigue rate. Using this metric coaches are able to more precisely help tailor the proper warm up & training routines for each specific athlete. By understanding muscle fatigue levels athletes gain a better understanding of how far they are able to push their bodies without injury.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

- ⇒ *Muscles - Hamstrings*
- ⇒ *Muscles - Quadriceps*
- ⇒ *Muscles - Calves*
- ⇒ *Muscles - Hip Flexors*
- ⇒ *Muscles - Lower Back*
- ⇒ *Muscles - Trapezius*
- ⇒ *Muscles - Latissimus Dorsi*
- ⇒ *Muscles - Biceps*
- ⇒ *Muscles - Triceps*
- ⇒ *Muscles - Deltoids*
- ⇒ *Muscles - Abs*

#### TESTING PROTOCOL LEVELS:

- Basic Level Testing/Training** - One Muscle Group
- Intermediate Level Testing/Training** - Two Muscle Groups
- Advanced Level Testing/Training** - Three Muscle Groups
- Expert Level Testing/Training** - Four Muscle Groups

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE MUSCLE ACTIVATION**



### **ENERGIZE SPORTS PERFORMANCE TEST - MUSCLE ACTIVATION**

Muscle activation testing is a two or three phase process with several levels that involve first testing baseline neural muscle biofeedback levels and then stimulating specific muscles using electrical muscle stimulation to activate more muscle fibers. Once muscle stimulation is complete we are able to retest this same specific muscle to determine the increase in neural pathway power output that has been reached. Using this test we are able to reeducate muscle fiber by reactivating neural pathways to recruit more muscle fiber, which will increase strength, power & speed.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

- ⇒ *Muscles - Hamstrings*
- ⇒ *Muscles - Quadriceps*
- ⇒ *Muscles - Calves*
- ⇒ *Muscles - Hip Flexors*
- ⇒ *Muscles - Lower Back*
- ⇒ *Muscles - Trapezius*
- ⇒ *Muscles - Latissimus Dorsi*
- ⇒ *Muscles - Biceps*
- ⇒ *Muscles - Triceps*
- ⇒ *Muscles - Deltoids*
- ⇒ *Muscles - Abs*

#### **TESTING PROTOCOL LEVELS:**

- Basic Level Testing** - One Muscle Group
- Intermediate Level Testing** - Two Muscle Groups
- Advanced Level Testing** - Three Muscle Groups
- Expert Level Testing** - Four Muscle Groups

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE LUNG STRENGTH**



### **ENERGIZE SPORTS PERFORMANCE TEST - LUNG STRENGTH**

Lung Strength testing measures the output resistance on your respiratory muscles and produces an overall lung strength score. Tracking this score is vital to all high performance athletes. Incorporating lung strength training does improve your vital capacity, which is the actual amount of air you can get in and out of your lungs efficiently. Being able to test, track and record your overall lung performance score is beneficial to identify improvements or setbacks.

Stretching your diaphragm and intercostal muscles allows you to decrease the residual volume and increase the amount of usable air. Stronger respiratory muscles enable athletes of all levels to improve their performance in high intensity, as well as in endurance sports. Training your breathing muscles, primarily the diaphragm, prolongs the time until they fatigue, thereby prolonging oxygen supply to muscles used during exercise.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

- ⇒ *Lungs - Lungs*
- ⇒ *Lungs - Respiratory Muscles*

#### **TESTING PROTOCOL LEVELS:**

- Basic Level Testing** - Baseline Lung Strength Test
- Intermediate Level Testing** - Two Lung Strength Tests
- Advanced Level Testing** - Three Lung Strength Tests
- Expert Level Testing** - Four Lung Strength Tests

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## ENERGIZE LUNG CAPACITY



### ENERGIZE SPORTS PERFORMANCE TEST - LUNG CAPACITY

Lung capacity testing measures the volume output and volume input while it also tracks the time it takes you to exhale completely after you take a deep breath and produces an overall lung capacity score. Tracking this score is vital to all high performance athletes. While incorporating lung strength training, which does improve your vital capacity, which is the actual amount of air you can get in and out of your lungs efficiently. Being able to test, track and record your overall lung capacity score is beneficial to identify improvements or setbacks.

Stretching your diaphragm and intercostal muscles allows you to decrease the residual volume and increase the amount of usable air. Larger lung capacity will enable athletes of all levels to improve their performance in high intensity, as well as in endurance sports.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

- ⇒ *Lungs - Lungs*
- ⇒ *Lungs - Respiratory Muscles*

#### TESTING PROTOCOL LEVELS:

- Basic Level Testing** - Baseline Lung Capacity Test
- Intermediate Level Testing** - Two Lung Capacity Tests
- Advanced Level Testing** - Three Lung Capacity Tests
- Expert Level Testing** - Four Lung Capacity Tests

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE BREATH CALORIMETRY**



### **ENERGIZE SPORTS PERFORMANCE TEST - BREATH CALORIMETRY / VO<sub>2</sub> MAX**

Breath calorimetry, also known as indirect calorimetry, measures gas exchange (oxygen intake and carbon dioxide output), which is then analyzed to determine the amount of energy and type of nutrient fuel used at any given time. Measuring 50 times per second, it reads and captures oxygen intake, carbon dioxide production, respiratory flow & volume, and more. These measurements and complicated formulas, are processed to help determine a multitude of metrics like the calorie burn rate, %carb vs. % fat burned, and minute volume, VO<sub>2</sub>, and more. The anaerobic gauge is an indicator of the relative significance of anaerobic energy supply. There is a limit to the rate at which your body can utilize oxygen (aerobic metabolism), so when needed your body can supplement its energy supply through partial breakdown of certain fuels anaerobically, namely, "without oxygen".

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

- ⇒ *Lungs - Lungs*
- ⇒ *Lungs - Breath Calorimetry*

#### **TESTING PROTOCOL LEVELS:**

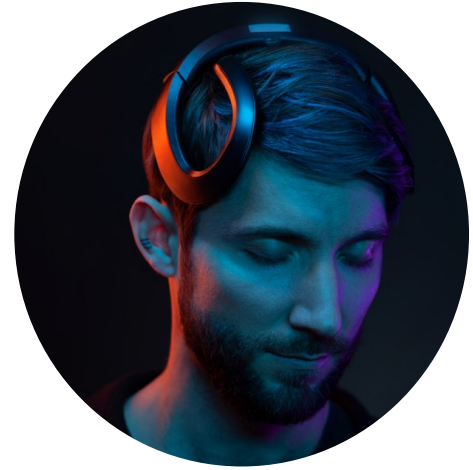
- Basic Level Testing** - Baseline Breath Calorimetry Capacity Test
- Intermediate Level Testing** - Two Breath Calorimetry Capacity Tests
- Advanced Level Testing** - Three Breath Calorimetry Capacity Tests
- Expert Level Testing** - Four Breath Calorimetry Capacity Tests

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE NEURO FLOW STATE**



### **ENERGIZE SPORTS PERFORMANCE TEST - NEURO FLOW STATE**

Neuro flow state testing analyzes how long it takes your brain to reach a state of concentration, calm or its flow state. Neuro flow state testing utilizes an EEG (electroencephalograph) which measures brainwaves of different frequencies within the brain. The electrodes are placed on specific sites of the scalp to detect and record the electrical impulses within the brain. Then software that uses signal processing to translate your brain waves into an interpretable level determine your level of focus or flow. When your brain is focused on a task, it emits higher levels of Gamma brain waves which the EEG sensors are able to detect. For athletes, getting into the zone can most times be difficult, but with neuro flow state testing we can help unlock the mystery of neuro flow.

Gamma brain waves have the highest frequency among all brain waves. They are associated with high levels of thought and focus. They can have different effects depending on their levels in your brain. If your brain produces high levels of gamma waves, you tend to be happier and more receptive.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

⇒ *Brain - Neuro Flow State*

#### **TESTING PROTOCOL LEVELS:**

- Basic Level Testing** - Neuro Flow State Baseline Test
- Intermediate Level Testing** - Two Neuro Flow State Tests
- Advanced Level Testing** - Three Neuro Flow State Tests
- Expert Level Testing** - Four Neuro Flow State Tests

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE BRAIN TRAINING**



### **ENERGIZE SPORTS PERFORMANCE TEST - BRAIN TRAINING**

Neurofeedback brain training is used by athletes, coaches, and trainers to improve brain function and overall health. Our testing/training stimulates the brain with exercises that help you focus and relax. It can even make you feel energized and is also helpful to manage stress and anxiety. Neurofeedback brain training has been proven to help with a wide range of cognitive functions from mental focus and stress, to sleep and mood disorders. Perhaps most fundamentally, consistent training can be used by anyone to improve their brain's blood flow and physical health. This device is the first device of its kind to measure blood flow and oxygenation in the prefrontal cortex (PFC). Studies have shown that regulating blood flow in the PFC can help to address existing conditions, such as ADHD and social anxiety disorder.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

- ⇒ *Brain - Cerebral Blood Flow*
- ⇒ *Brain - Brain Training*

#### **TESTING PROTOCOL LEVELS:**

- Basic Level Testing** - Baseline Brain Training Test
- Intermediate Level Testing** - Two Brain Training Tests
- Advanced Level Testing** - Three Brain Training Tests
- Expert Level Testing** - Four Brain Training Tests

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.





## **ENERGIZE EEG BRAIN FEEDBACK**



### **ENERGIZE SPORTS PERFORMANCE TEST - EEG BRAIN FEEDBACK**

EEG Brain Feedback is a sports performance analysis of an athlete's current brainwave status. Beta waves are most closely associated with being conscious or in an awake, attentive and alert state. Low-amplitude beta waves are associated with active concentration, or with a busy or anxious state of mind. Beta waves are also associated with motor decisions (suppression of movement and sensory feedback of motion).

Alpha waves are often associated with a relaxed, calm and lucid state of mind. Alpha waves can be found in the occipital and posterior regions of the brain. Alpha waves can be induced by closing one's eyes and relaxing, and they are rarely present during intense cognitive processes like thinking, mental calculus and problem-solving. In most adults, alpha waves range in frequency from 9 to 11 Hz.

Brain activity within a frequency range comprised between 4 and 7 Hz is referred to as Theta activity. Theta rhythm detected in EEG measurement is often found in young adults, particularly over the temporal regions and during hyperventilation. In older individuals, theta activity with an amplitude greater than about 30 millivolts (mV) is seen less commonly, except during drowsiness.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

⇒ *Brain - EEG Brain Wave State*

#### **TESTING PROTOCOL LEVELS:**

**Basic Level Testing** - Unavailable

**Intermediate Level Testing** - Unavailable

**Advanced Level Testing** - Baseline EEG Brain Wave State Test

**Expert Level Testing** - Two EEG Brain Wave State Tests

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## ENERGIZE 3D BODY SCAN



### ENERGIZE SPORTS PERFORMANCE TEST - 3D BODY SCAN

A sophisticated 3D scanning technology, Styku collects and displays levels of fitness both in traditional numerical terms but also through stunning 3-dimensional modeling. An athlete simply stands on the turntable and holds the pose for 30 to 40 seconds until the rotation is complete. The Styku software then gives Energize the ability to analyze a full-body scan, view 3D models, extract measurements, track changes in body shape, calculate fitness and health metrics, and much more. Once a model is created, the 3D body scanner advanced feature recognition technology automatically finds detailed landmarks on the body (e.g. hip, bust point, etc), which are used to extract circumferences, volume, and surface areas for various regions of the body.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

⇒ *Body - Full Body*

#### TESTING PROTOCOL LEVELS:

**Basic Level Testing** - One Baseline 3D Body Scan Analysis

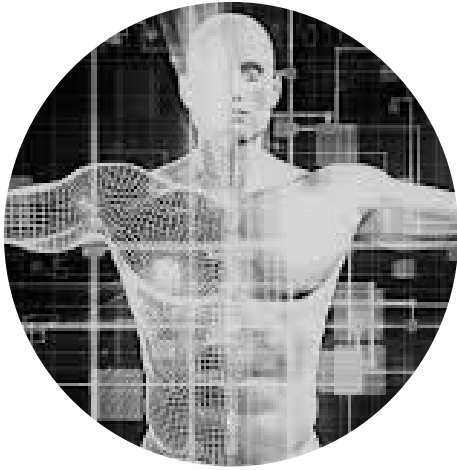
**Intermediate Level Testing** - Two 3D Body Scan Analysis

**Advanced Level Testing** - Three 3D Body Scan Analysis

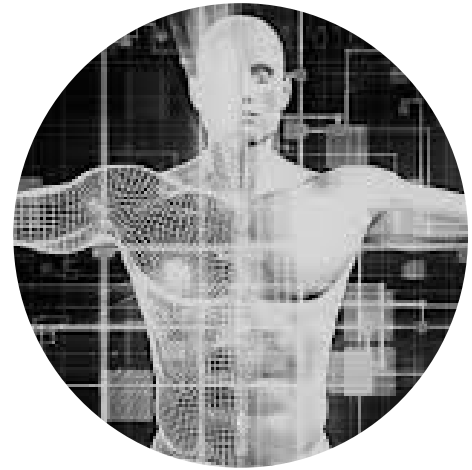
**Expert Level Testing** - Four 3D Body Scan Analysis

#### ADDITIONAL TESTING PROTOCOLS:

No additional testing protocols are available with this test.



## **ENERGIZE BODY COMPOSITION**



### **ENERGIZE SPORTS PERFORMANCE TEST - BODY COMPOSITION**

The body composition scanner uses bioelectrical impedance analysis. To precisely measure body composition, it sends multiple electrical currents through the body, resulting in up to six different impedance readings for the trunk and each of the four limbs. The test provides a comprehensive view of body composition balance. Body water, skeletal muscle mass, and body fat, which are the components of the human body, closely relate to the status of our athletic performance. After your scan you will receive a detailed report with your weight, muscle mass, body fat percentage, lean analysis, and water content. From there athletes are able to track and monitor the success of their nutritional content and training regiments.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

- ⇒ *Body - Full Body*
- ⇒ *Body - Body Composition Analysis*

#### **TESTING PROTOCOL LEVELS:**

- Basic Level Testing** - One Body Composition Analysis Scan
- Intermediate Level Testing** - Two Body Composition Analysis Scan
- Advanced Level Testing** - Three Body Composition Analysis Scan
- Expert Level Testing** - Four Body Composition Analysis Scan

#### **ADDITIONAL TESTING PROTOCOLS:**

No additional testing protocols are available with this test.



## ENERGIZE BODY BIOMETRICS



### ENERGIZE SPORTS PERFORMANCE TEST - BODY BIOMETRICS

Body Biometrics is a 24/7 athletic tracking device for elite athletes trying to uncover the key to maximum performance. It continually tracks heart rate, HRV, respiratory rate, temperature, calorie expenditure, and other health metrics in real time. By utilizing Photoplethysmography the gold standard for accuracy (PPG) PPG is a non-invasive optical technique that uses light absorption to measure blood volume changes in the microvasculature. This device uses PPG waveform analysis to provide accurate readings of critical health metrics. The device has been validated in clinical studies and has been shown to be accurate and reliable. Sleep is fundamental to an athletes performance and by tracking sleep stages, duration, and the quality of your nightly rest athletes are able to identify when their body has recovered and ready to go.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

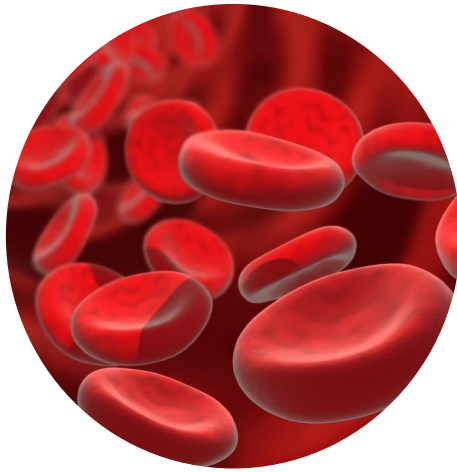
- ⇒ *Biometrics - Heart Rate*
- ⇒ *Biometrics - HRV*
- ⇒ *Biometrics - Temperature*
- ⇒ *Biometrics - Respiratory Rate*
- ⇒ *Biometrics - Sleep*
- ⇒ *Biometrics - Recovery*
- ⇒ *Biometrics - Active Calories*

#### TESTING PROTOCOL LEVELS:

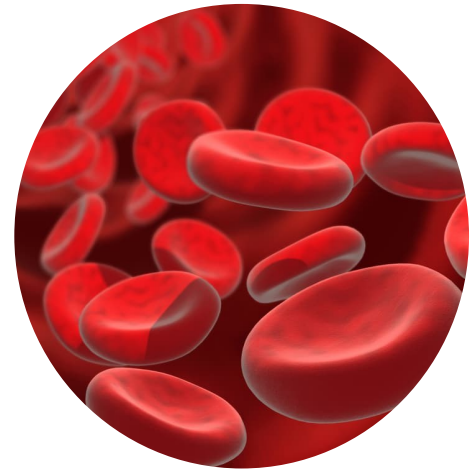
- Basic Level Testing** - Two Week 24/7 Biometric Monitoring
- Intermediate Level Testing** - One Month 24/7 Biometric Monitoring
- Advanced Level Testing** - Two Month 24/7 Biometric Monitoring
- Expert Level Testing** - Three Month 24/7 Biometric Monitoring

#### ADDITIONAL TESTING PROTOCOLS:

No additional testing protocols are available with this test.



## ENERGIZE O2 SATURATION



### ENERGIZE SPORTS PERFORMANCE TEST - O<sub>2</sub> OXYGEN SATURATION

Oxygen saturation testing is a simple test that indicates how active level of hemoglobin that are bound to oxygen compared to how much hemoglobin remains unbound. This test is typically performed to demonstrate to an athlete precise oxygen saturation levels. Reasons these levels may be lower are less oxygen in the air you breathe, such as at high altitudes. Breathing that's too slow or shallow to meet the lungs' need for oxygen. Either not enough blood flow to the lungs or not enough oxygen to the lungs.

Trouble with oxygen getting into the bloodstream and the waste gas carbon dioxide getting out. It is important to be sure that your oxygen saturation level with exercise is adequate, meaning that it is over 88% blood oxygen saturation, preferably 93% or more. Low oxygen saturation puts an extra strain on the heart and decreases your energy level.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

- ⇒ *Body - Resting O<sub>2</sub> Saturation*
- ⇒ *Body - Active O<sub>2</sub> Saturation*

#### TESTING PROTOCOL LEVELS:

- Basic Level Testing** - One Resting O<sub>2</sub>/One Active O<sub>2</sub>
- Intermediate Level Testing** - Two Resting O<sub>2</sub>/Two Active O<sub>2</sub>
- Advanced Level Testing** - Three Resting O<sub>2</sub>/Three Active O<sub>2</sub>
- Expert Level Testing** - Four Resting O<sub>2</sub>/Four Active O<sub>2</sub>

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE REACTION SPEED**



### **ENERGIZE SPORTS PERFORMANCE TEST - REACTION SPEED**

Reaction speed testing is a simple test that indicates how quick your reaction times are in relation to different levels of fatigue and distractions. This test is typically performed to demonstrate to an athlete the visible differences between baseline reaction times versus reaction times when fatigue or strobe distractions are added. Each level of fatigue will slow an athlete's reaction time as will every increasing level of strobe eyewear distraction. By fatiguing the body or distracting the brain we are better able to simulate game time situations.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

- ⇒ *Body - Reaction Time*
- ⇒ *Eyes - Reaction Time*

#### **TESTING PROTOCOL LEVELS:**

- Basic Level Testing** - One Baseline Reaction Test
- Intermediate Level Testing** - Two Reaction Tests
- Advanced Level Testing** - Three Reaction Tests
- Expert Level Testing** - Four Reaction Tests

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## ENERGIZE AGILITY ANALYSIS



### ENERGIZE SPORTS PERFORMANCE TEST - AGILITY ANALYSIS

Agility analysis is a test that measures an athlete's level of agility in relation to different levels of fatigue and distractions. This test is typically performed to demonstrate to an athlete the visible differences between baseline agility times versus agility reaction times when fatigue or strobe distractions are added. Each level of fatigue will slow an athlete's agility and reaction time as will every increasing level of strobe eyewear distraction. By fatiguing the body and distracting the brain we are better able to simulate training and game time situations. Agility analysis is a sophisticated training and diagnostic system that helps enhance athletes' performance and also helps with rehabilitation after injury. These testing exercises expose hard-to-see athlete deficits and target the right leg and left leg to track and restore deficiencies throughout training. Other exercises target speed, strength, stability, coordination, reaction times and proprioception.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

- ⇒ *Body - Agility Test*
- ⇒ *Eyes - Strobe Agility Test*
- ⇒ *Body - Fatigue Agility Test*

#### TESTING PROTOCOL LEVELS:

**Basic Level Testing** - One Baseline Agility Test

**Intermediate Level Testing** - Two Agility Tests

**Advanced Level Testing** - Three Agility Tests

**Expert Level Testing** - Four Agility Tests

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE FOOT STRIKE ANALYSIS**



### **ENERGIZE SPORTS PERFORMANCE TEST - FOOT STRIKE ANALYSIS**

Foot strike analysis is a comprehensive performance test that indicates the underlying foot strike patterns in relationship to stride length, cadence, running economy and power. Merging biomechanics and running technology, our foot strike analysis can uncover a lot. The running economy measures how effectively you use energy when you run, by calculating the distance covered per calorie (feet per kcal).

By improving your running economy and you'll be able to run further and hold a pace for longer distances. Simple tweaks to your running form could boost your running performance so you can run faster and longer. Tracking your cadence can also help you improve your speed and help you run more efficiently along with reducing the impact on your body as you make contact with the ground. Running with optimal step or stride length helps you run more efficiently and boost your speed. Athletes who overstride or when the foot lands too far in front of the body can suffer recurring injuries. Our technology also calculates running power in real-time effort and the rate of energy being expressed at any given moment.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

- ⇒ *Feet - Running Stride*
- ⇒ *Feet - Running Cadence*
- ⇒ *Feet - Running Economy*
- ⇒ *Feet - Running Power*

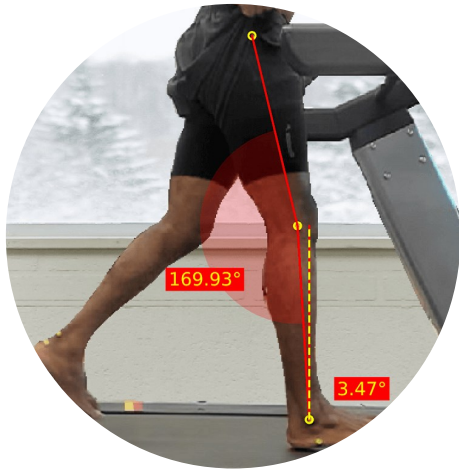
#### **TESTING PROTOCOL LEVELS:**

- Basic Level Testing** - Unavailable
- Intermediate Level Testing** - Unavailable
- Advanced Level Testing** - Unavailable
- Expert Level Testing** - Foot Strike Analysis Test

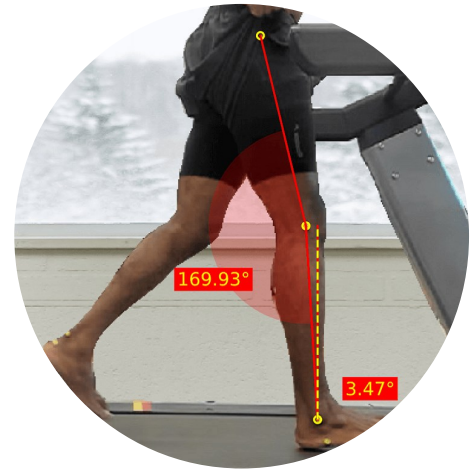
#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.





## ENERGIZE RUNNING ANALYSIS



### ENERGIZE SPORTS PERFORMANCE TEST - RUN ANALYSIS

Running analysis is a comprehensive performance test that indicates the underlying patterns in relationship to ground reaction force, symmetry, initial peak acceleration, speed, ground contact time, and cadence. Merging biomechanics and running technology, our running analysis can uncover a lot. Our wearable sensor technology is able to identify sensitive changes in running symmetry, GRF, IPA, stride frequency and ground contact time during an individual's run. This information is crucial for runners who want to improve technique, maximize performance and reduce the risk of injury from running.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

- ⇒ Feet - Running Ground Reaction Force
- ⇒ Feet - Running Symmetry
- ⇒ Feet - Running Cadence
- ⇒ Feet - Running Initial Peak Acceleration

#### TESTING PROTOCOL LEVELS:

- Basic Level Testing** - Unavailable
- Intermediate Level Testing** - Unavailable
- Advanced Level Testing** - Unavailable
- Expert Level Testing** - Running Analysis Test

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## ENERGIZE GAIT ANALYSIS



### ENERGIZE SPORTS PERFORMANCE TEST - GAIT ANALYSIS

Gait analysis is a comprehensive performance test that indicates the underlying foot strike patterns and foot pressures points using both insole sensors and live video. Merging biomechanics and running technology, our foot strike analysis can be used to uncover which performance running shoes help you perform your best or which running style produces the most power. Included in this analysis is our Movement Metrics which allows us to view live generation of 18 different key movement metrics and view a live animated digital foot strike from within any shoe while we produce a predicted bio-load to help athletes reduce their risks of injury. Video analysis Interactive annotations to customize each athletes experience. Additionally we can show the position of a body part while landing and with the drawing tool help athletes visualize the curves of the body and highlight angles to show the position of a body part while landing

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

- ⇒ Feet - Running/Gait Stride
- ⇒ Feet - Running Foot Strike Patterns
- ⇒ Feet - Running Foot Pressure
- ⇒ Feet - Running Power
- ⇒ Feet - Video Analysis

#### TESTING PROTOCOL LEVELS:

- Basic Level Testing** - Unavailable
- Intermediate Level Testing** - Unavailable
- Advanced Level Testing** - Unavailable
- Expert Level Testing** - Gait Analysis Test

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## ENERGIZE STRIDE ANALYSIS



### ENERGIZE SPORTS PERFORMANCE TEST - STRIDE ANALYSIS

Stride analysis is a comprehensive performance test that indicates the underlying stride and shock trauma patterns. Merging biomechanics and running technology, our stride analysis uncovers all of the analysis of the most efficient stride length as well as foot strike trauma forces. Impact loading rate captures how quickly your body is absorbing force when your foot comes in contact with the ground.

Optimize recovery by learning how to manage situations that are subjected on the body from high impact loading rate such as downhill running or running at high speeds. Our next gen sensors capture your run with 4x dynamic range to pick up even your highest performance efforts and its 6x sample frequency enables our stride analysis to look at every step you take in finer detail than ever before.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

- ⇒ Feet - Running Stride
- ⇒ Feet - Running Pace
- ⇒ Feet - Shock Trauma

#### TESTING PROTOCOL LEVELS:

- Basic Level Testing** - Unavailable
- Intermediate Level Testing** - Unavailable
- Advanced Level Testing** - Unavailable
- Expert Level Testing** - Stride Analysis Test

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE RANGE OF MOTION**



### **ENERGIZE SPORTS PERFORMANCE TEST - RANGE OF MOTION**

Range of motion analysis is a test that indicates how flexible or pliable the underlying muscle fibers are in relationship to their strength. Our range of motion testing devices is capable to perform more than 300 strength and range of motion tests with ease, view your results in real time and seamlessly track results over time. This information can prove to be valuable for trainers and coaches to tailor stretching and training to help address these imbalances.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

- ⇒ *Muscles/Joints - Hip*
- ⇒ *Muscles/Joints - Knee*
- ⇒ *Muscles/Joints - Ankle*
- ⇒ *Muscles/Joints - Foot*
- ⇒ *Muscles/Joints - Thoracic*
- ⇒ *Muscles/Joints - Neck*
- ⇒ *Muscles/Joints - Shoulder*
- ⇒ *Muscles/Joints - Elbow*
- ⇒ *Muscles/Joints - Wrist*
- ⇒ *Muscles/Joints - Hand*

#### **TESTING PROTOCOL LEVELS:**

- Basic Level Testing** - One Muscle/Joint Group - Both Sides Of The Body
- Intermediate Level Testing** - Two Muscle/Joint Groups - Both Sides Of The Body
- Advanced Level Testing** - Three Muscle/Joint Groups - Both Sides Of The Body
- Expert Level Testing** - Four Muscle/ Joint Groups - Both Sides Of The Body

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE STABILITY ANALYSIS**



### **ENERGIZE SPORTS PERFORMANCE TEST - STABILITY ANALYSIS**

Stability analysis is a set of tests that indicates how stable the underlying muscle and joints are in relationship to their strength response measurements. This test is typically performed to demonstrate to an athlete the visible stability differences of opposing muscles and joints as well as other contributing stabilizing muscle groups. Using a combination of sensors and software our technology uses revolutionary wireless wearable sensors to objectively measure and quantify exactly how you move and how stable your joints are during competition. These are the same sensors that elite sports trainers are using with Olympians and professional athletes to measure range of motion, acceleration and muscle activity. This information can prove to be valuable for trainers and coaches to tailor lifting and training to help address these imbalances or help predict injuries before they occur.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

- ⇒ *Muscles/Joints - Ankles*
- ⇒ *Muscles/Joints - Knees*
- ⇒ *Muscles/Joints - Core*
- ⇒ *Muscles/Joints - Lower Back*

#### **TESTING PROTOCOL LEVELS:**

- Basic Level Testing** - Unavailable
- Intermediate Level Testing** - Unavailable
- Advanced Level Testing** - Unavailable
- Expert Level Testing** - Knee & Ankle Stability Analysis Test

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE BALANCE ANALYSIS**



### **ENERGIZE SPORTS PERFORMANCE TEST - BALANCE ANALYSIS**

Balance analysis is a set of balance tests that indicates how stable the underlying muscle and joints are in relationship to their strength and coordination response measurements. This test is typically performed to demonstrate to an athlete the visible differences of apposing muscles and joints as well as other contributing coordination muscle groups. Using a combination of sensors and software our technology uses revolutionary wireless wearable sensors to objectively measure and quantify exactly how you move and how stable your joints are during competition. These are the same sensors that elite sports trainers are using with Olympians and professional athletes to measure range of motion, acceleration and muscle activity. This information can prove to be valuable for trainers and coaches to tailor lifting and training to help address these imbalances or help predict injuries before they occur.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

- ⇒ *Muscles/Joints - Ankles*
- ⇒ *Muscles/Joints - Knees*
- ⇒ *Muscles/Joints - Core*
- ⇒ *Muscles/Joints - Lower Back*

#### **TESTING PROTOCOL LEVELS:**

- Basic Level Testing** - Unavailable
- Intermediate Level Testing** - Unavailable
- Advanced Level Testing** - Unavailable
- Expert Level Testing** - Lower Body Balance Analysis Test

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE G FORCE STOCK TRAUMA**



### **ENERGIZE SPORTS PERFORMANCE TEST - GROUND FORCE SHOCK TRAUMA**

Ground Force shock trauma analysis is a test that indicates how forces on the underlying muscle and joints in relationship to their strength response measurements. This test is typically performed to demonstrate to an athlete the visible differences of the shock trauma their body is exposed to during routine training. This information can prove to be valuable for trainers and coaches to tailor lifting and training to help address these over training scenarios.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

- ⇒ *Muscles/Joints - Ankles*
- ⇒ *Muscles/Joints - Knees*
- ⇒ *Muscles/Joints - Core*
- ⇒ *Muscles/Joints - Lower Back*

#### **TESTING PROTOCOL LEVELS:**

**Basic Level Testing** - Unavailable

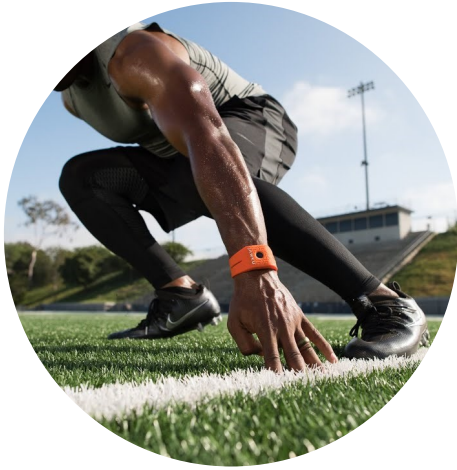
**Intermediate Level Testing** - Unavailable

**Advanced Level Testing** - Unavailable

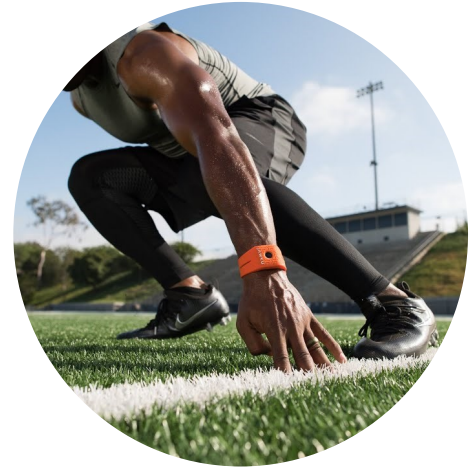
**Expert Level Testing** - Ground Force Shock Trauma Analysis Test

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE SPEED ANALYSIS**



### **ENERGIZE SPORTS PERFORMANCE TEST - SPEED ANALYSIS**

Speed analysis is a test that breaks down a race into 10 yards or meter increments to help athletes identify weaknesses in their speed performance and more importantly where those speed lags reside with respects to the specific part of the race. By analyzing speed performance in smaller more isolated segments we are able to identify specific race segment lags that help coaches and trainers design custom training regiments to specifically address these athletes weaknesses. Just like a normal scale gives you a total number for your body weight without any details, so to does a race timer. Without knowing the components that make up your total body weight, its far more difficult to work towards a goal. Our speed analysis provides athletes with critical insights into specifically where in the race performance lags are occurring.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

⇒ *Legs - Speed Test*

#### **TESTING PROTOCOL LEVELS:**

**Basic Level Testing** - Unavailable

**Intermediate Level Testing** - Unavailable

**Advanced Level Testing** - Unavailable

**Expert Level Testing** - Speed Gate Analysis Testing

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.





## ENERGIZE JUMP ANALYSIS



### ENERGIZE SPORTS PERFORMANCE TEST - JUMP ANALYSIS

Jump analysis is a simple test that indicates how active the underlying muscle fibers are in relationship to their neuro connectivity during a jump response measurements. By measuring the jump height and the muscles electrical output simultaneously we are able to isolate which muscles contribute more and which contribute less to achieve maximum jump height. Our jump height test analysis is a ground up approach that records how high your feet are off the ground and which muscle groups helped you achieve the best results. The results of the test are reported in terms of jump height (cm/inch). To ensure a valid and reliable result, it is our standard practice to take an average of the three jumps performed by the athlete.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

⇒ *Legs - Jump Height Analysis*

#### TESTING PROTOCOL LEVELS:

**Basic Level Testing** - Baseline Jump Height Analysis

**Intermediate Level Testing** - Two Jump Height Analysis

**Advanced Level Testing** - Three Jump Height Analysis

**Expert Level Testing** - Four Jump Height Analysis

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE HAMSTRING ANALYSIS**



### **ENERGIZE SPORTS PERFORMANCE TEST - HAMSTRING ANALYSIS**

Hamstring muscle strength/imbalance test that indicates the strength and balance of the underlying hamstring muscle fibers are in relationship to their response measurements. Combining advanced sensors, real-time data visualization and cloud analytics, our technology is a comprehensive system for accurately quantifying and monitoring an athlete's hamstring strength and imbalance.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

⇒ *Muscles - Hamstrings*

#### **TESTING PROTOCOL LEVELS:**

- Basic Level Testing** - Baseline Hamstring Analysis Test
- Intermediate Level Testing** - Two Hamstring Analysis Tests
- Advanced Level Testing** - Three Hamstring Analysis Tests
- Expert Level Testing** - Four Hamstring Analysis Tests

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## ENERGIZE FORCE PLATE ANALYSIS



### ENERGIZE SPORTS PERFORMANCE TEST - FORCE PLATE ANALYSIS

Force plate analysis is a test that indicates the ground reaction forces and moments involved in athletic movements. If we know the frequency of the force-data, we can then perform additional measurements that provide us with far more information about a specific sports movement. Force plates are most often used for monitoring training effectiveness, return to play protocols, and athlete screening. Using force plates, you can complete a number of tests and therefore measure body symmetry, rehabilitation effectiveness, running/walking gait, balance, and changes of pressure. Collectively, this testing and data can be used to study the posture, power, and positions of athletes as they move, for diagnostic and rehabilitation purposes. This information can be combined with other data, such as limb mechanics, to establish an athlete's movement efficiency.

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

- ⇒ *Muscles - Hamstrings*
- ⇒ *Muscles - Quadriceps*
- ⇒ *Muscles - Calves*

#### TESTING PROTOCOL LEVELS:

- Basic Level Testing** - Baseline Force Plate Analysis Test
- Intermediate Level Testing** - Two Force Plate Analysis Tests
- Advanced Level Testing** - Three Force Plate Analysis Tests
- Expert Level Testing** - Four Force Plate Analysis Tests

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE HEART STRAIN ANALYSIS**



### **ENERGIZE SPORTS PERFORMANCE TEST - HEART STRAIN ANALYSIS**

Heart strain analysis is a test that indicates how much strain the heart is exposed to during athletic training. Medically cardiac strain is referred to as ST depression. Our proprietary technology metric "measures the amount of Oxygen deprivation experienced by the heart muscles". A high value of cardiac strain for prolonged periods of time can cause damage to your heart cells. Our testing accurately measures internal load using breathing rate as an indicator of effort. This is an objective internal measure that is independent of exercise type, allowing the computation of loads spanning different activities from running to cycling, swimming, and cross-fitness. This test is typically performed to demonstrate to an athlete the visible differences of heart strain at varying levels of physical training.

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

⇒ *Heart - Heart Strain*

#### **TESTING PROTOCOL LEVELS:**

**Basic Level Testing** - Heart Strain Analysis Test

**Intermediate Level Testing** - Two Heart Strain Analysis Tests

**Advanced Level Testing** - Three Heart Strain Analysis Tests

**Expert Level Testing** - Four Heart Strain Analysis Tests

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## **ENERGIZE EKG HEART ANALYSIS**



### **ENERGIZE SPORTS PERFORMANCE TEST - EKG HEART ANALYSIS**

EKG heart analysis is a simple test that indicates the health of an athletes heart. What is an electrocardiogram (EKG) test? An electrocardiogram (EKG) test is a simple, painless, and quick test that records your heart's electrical activity. Each time your heart beats, an electrical signal travels through your heart. While an athlete trains more strain is placed on the heart. The R-wave amplitude may decrease during exercise (normal reaction). T-wave amplitude may decrease or increase (during heavy workload) during exercise, both of which are normal reactions. QT duration is shortened by exercise (normal reaction).

#### **TESTING RECOMMENDED FOR:**

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### **TESTING BODY PARTS:**

⇒ *Heart - Heart Analysis*

#### **TESTING PROTOCOL LEVELS:**

**Basic Level Testing** - EKG Heart Analysis Baseline

**Intermediate Level Testing** - Two EKG Heart Analysis Tests

**Advanced Level Testing** - Three EKG Heart Analysis Tests

**Expert Level Testing** - Four EKG Heart Analysis Tests

#### **ADDITIONAL TESTING PROTOCOLS:**

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.



## ENERGIZE ACTIVE BLOOD PRESSURE



### ENERGIZE SPORTS PERFORMANCE TEST - ACTIVE BLOOD PRESSURE

Active blood pressure is a test that indicates the relationship between resting or static blood pressure and active blood pressure like you would experience during training. Your heart starts to pump harder and faster to circulate blood to deliver oxygen to your muscles when you are training. As a result, systolic blood pressure rises. It's normal for systolic blood pressure to rise to **between 160 and 220 mm Hg** during training but if rises to high it will hurt performance or may cause health issues. Normal blood pressure is around **120/80 mmHg**. This test is typically performed to demonstrate to an athlete the visible differences of blood pressure levels and look for possible friction points or health risks

#### TESTING RECOMMENDED FOR:

This test is recommended for all athletes from ages 10 and over that are competing at a high level and are looking to identify sports performance weaknesses.

#### TESTING BODY PARTS:

- ⇒ *Body - Blood Pressure*
- ⇒ *Body - Active Blood Pressure*

#### TESTING PROTOCOL LEVELS:

- Basic Level Testing** - Static Blood Pressure / Active Blood Pressure
- Intermediate Level Testing** - Two Static Blood Pressure / Two Active Blood Pressure
- Advanced Level Testing** - Three Static Blood Pressure / Three Active Blood Pressure
- Expert Level Testing** - Four Static Blood Pressure / Four Active Blood Pressure

#### ADDITIONAL TESTING PROTOCOLS:

Additional more complex multi-variable testing protocols are available for this test after adequate baseline testing protocols have been mastered.





**ENERGIZE**

PUT YOUR BODY TO THE TEST