L.E.A.P.

Lab for Exercise Assessment and Performance

The L.E.A.P.
Laboratory for Exercise Assessment and Performance
Health and Human Performance Department
Eastern Oregon University
Fieldhouse Room 111
La Grande, OR 97850

INFORMED CONSENT FOR EXERCISE LAB TESTING PARTICIPATION

Introduction: The purpose of these assessments is to determine physical fitness and/or sports performance. Information obtained from assessments can be used to inform exercise programming, and/or to track fitness and performance changes. With permission, data may be recorded without identification for future research and analysis.

Procedures: To assess metabolism, cardiorespiratory function, body composition, strength, heart rate variability, and other physical fitness components, the undersigned hereby voluntarily consents to engage in one or more of the following test(s) (check the appropriate boxes):

LEAP Tests and Procedures: check all that apply

	Metabolic Rate		Hydration Assessment		Vertical Jump
	VO2 Max		Heart Rate Variability		Equipment Check out (4 week)
	Exercise Efficiency		Body Composition		Customized Performance Plan
	Lactate Threshold		Blood Glucose		Hand Grip Strength
	Sweat Test (PH)		24 hr Cortisol Testing		Hemoglobin Check
	Nutrition Assessment		Equipment Check out (2 week)		

Explanation of Assessments: All assessments may be stopped at any time, for any reason. Instructions for each test will be explained thoroughly and all questions will be answered prior to testing.

Metabolic and Exercise Testing: For the basal metabolic test, participants breathe through a mouthpiece connected to a metabolic cart but do not perform any exercise. For the exercise efficiency test, VO2 max test, and the lactate threshold test, subjects will be connected to the metabolic cart while performing exercise on a treadmill or stationary bike. The exercise efficiency test consists of subjects exercising at a variety of intensities dictated by both speed and incline on treadmill or resistance on the bike. The exercise workload is increased every few minutes until exhaustion or until other symptoms indicate that the test should be terminated. Heart rate will be monitored prior to, during, and immediately following the assessment via a heart rate monitor. The test will continue until you choose to end it unless symptoms prohibit further exercise.

Lactate Threshold: Testing will be performed on a bicycle or treadmill. Exercise work will begin at a low intensity and gradually increase until the lactate threshold is identified. The test will take

approximately 45 minutes to complete, during which time 6 - 10 blood samples will be extracted from the finger, toe, or earlobe at regular intervals to determine blood lactate values. Participants can request to stop the test at any time.

Sweat Testing: A gentle electrical current is run through pilocarpine discs which stimulate a small area (about the size of a quarter) of sweat glands on the subject's forearm. Sweat from the stimulated area is collected in a patch that is strapped lightly to the subject's arm. Some subjects may develop temporary slight irritation at the sight of sweat collection, and a slight 'tingling' feeling during sweat collection. Single use Gx sweat patches can be used to optimize during exercise hydration strategy.

Heart Rate Variability: Real-time heart rate variability is a tool used to measure parasympathetic and sympathetic control at rest and is used as a biofeedback to train and monitor mindfulness, relaxation, and breath control. The test conducts off clipping an earpiece to the subject's earlobe that monitors heart rate variability.

Wearable Device Checkout (2 or 4 week options): For this assessment, LEAP clients will be able to check out wearable technology from the LEAP, use the equipment for 2-4 weeks, and get feedback on the information gathered during the testing period. The LEAP has several field based items that clients can utilize to better understand aspects of their health and wellness. Currently, these include Oura Ring, Dexcom Stelo Continuous Glucose Monitors, H-Drop sweat analyzers, Heart Rate + GPS Smart watches, and Heartmath HRV monitors, and Lumos Sleep Mask. Briefly, Oura ring is considered one of the best ways to assess a person's sleep in a free living environment. Clients would wear the Oura Ring for 2-4 weeks and gain insights into their sleep quality, habits, and impact of current sleep hygiene. Next, Dexcom Stelo Continuous Glucose Monitors are wearable sensors that measure blood glucose levels around the clock. These are over the counter non-medical devices that allow individuals to analyze the impact of their exercise, sleep, and diet on blood glucose dynamics. H-Drop sensor is a wearable device that detects sweat onset, sweat rate, and estimates sodium and potassium loss in sweat during activity. Heart and GPS can be useful tools to assess workload and performance in the field. Heartmath heart rate variability sensors can be used to assess and understand the impact of mindful practice and stress reduction techniques. Lumos sleep mask is a non-medical sleep mask that can help alter circadian rhythm to help adjust a person's bed time, wake time, and reduce the impact of sleep schedule disturbances like social jet lag. We also have a resisted breath training device that can be used by individuals for 30 days to improve breathing mechanics.

Hydration Assessment: We conduct hydration status through testing urine specific gravity using the Atago Urinalysis Pen. Subject urinates ~100ml of urine into a urine collection cup on 5 consecutive mornings while carefully tracking food and drink for the same days. The Atago pen is dipped into the urine and provides urine specific gravity. This is a safe, non-invasive way to measure hydration status with no risk to subjects.

Vertical Jump and Jump Endurance: To measure the vertical height of a single jump as well as the ability to jump repeated times we use the Just Jump jump pad. For max vertical jump the subject stands on the jump pad and performs a single vertical jump as high as they can while keeping their legs straight. Importantly, legs can be bent to absorb the impact upon landing. For the jump endurance test the subject jumps up and down as quickly as possible 30 times.

Body Composition and Weight: Body composition is measured using bioelectrical impedance. You place your hands on two electrodes and a low level imperceptible electrical current is sent

through the body. The speed of transmission is used in an algorithm to calculate percent lean and fat mass (the current runs slower through fat mass compared to lean mass). Weight is collected using a Health-o-meter body weight scale.

Nutrition Assessment: This assessment involves an interview to understand the non-medical health related goals of the individual around nutrition. Once an understanding of the goals of the individual, we will provide evidence based nutrition suggestions based on health promotion and in line with the performance and health goals of the individual. Examples include weight loss, weight gain via muscle mass, improved nutrition around exercise, race nutrition planning.

24-hour Salivary Cortisol Assessment: Cortisol is an important stimulatory hormone. Cortisol is diurnal, meaning it goes up and down throughout the day, typically being the highest in the morning and slowly lowering as a person gets closer to bed time. Cortisol is considered a stress hormone, and cortisol can rapidly increase during exercise as well as other stressful times throughout the day. Understanding cortisol regulation throughout the day can provide insight into the stress levels of a person during the day and indicate periods of time when stress reduction techniques like mindful breathing could positively impact a person. The test includes subjects collecting saliva at specific times throughout a 24 hour period and returning these samples to the lab for assessment.

Customized Performance Plan: This option allows a client to personalize a combination of lab services to take a comprehensive approach at improving wellness while saving money by getting multiple assessments and tests based on their goals and needs.

Possible Risks: Minimal risk is associated with the aforementioned tests including unexpected reactions of the heart, lungs, muscles, and blood vessels. Discomfort during exercise testing is expected; however, pain is not appropriate, and testing should be stopped if you feel pain. In addition, there exists the potential for changes occurring during and after testing and may include muscle and/or joint pain, delayed onset muscle soreness, abnormal blood pressure, fainting, disorders of heart rate, and in rare instances, heart attack, stroke, or death. Other risks include muscle soreness, feelings of exhaustion, nausea, episodes of transient lightheadedness, fainting, skin irritation/discomfort/pinching at sample sites. Disclosing all relevant health information to the test administrator and immediately informing them of any abnormal symptoms prior to, during, or following the testing will help reduce these risks. Participants may stop or delay any testing if they so desire and/or testing may be terminated by the test administrator upon observation of any symptoms or abnormal response. Participants are encouraged to ask any questions or request further explanation or information about any of the procedures at any time prior to, during, or after testing.

Post-Testing Considerations:

1. Management of Potential Effects (Soreness and Fatigue)

The following minor, temporary effects are common after exercise testing and do not usually require professional medical attention:

- **Temporary Fatigue:** General tiredness and reduced energy lasting several hours.
- **Delayed Onset Muscle Soreness (DOMS):** Muscle aching that begins 12–48 hours after the test and typically resolves within 3–5 days.

Required Steps for Expected Effects:

- **Hydrate and Rest:** Immediately after testing, subjects **can** follow the suggested cool-down protocol and ensure adequate hydration and rest over the next 24 hours.
- **Self-Care:** Subjects can manage muscle soreness using standard recovery practices, such as gentle stretching, light activity, and over-the-counter pain relief (if medically cleared to do so).
- **Duration Monitoring:** If these effects (fatigue, soreness) persist or worsen significantly beyond five (5) days, subjects should proceed immediately to the steps outlined in Section 2.

2. Action for Unusual or Adverse Effects

In the rare event a subject experiences any symptom that is unusual, severe, or persistent after leaving the lab (e.g., severe pain, chest discomfort, acute injury, or worsening soreness beyond 5 days), the following steps are highly suggested:

Step	Suggested Action
1. Emergency Situations	If symptoms are **life-threatening** (e.g., severe chest pain, inability to breathe, loss of consciousness), the subject **should immediately call 911** (Emergency Services).
2. Post-Test Notification	If symptoms are **unusual or severe but NOT life-threatening**, the subject **should immediately contact** their primary care physician.
3. Medical Responsibility	Subjects must understand that lab personnel are not medical professionals, and all subsequent medical care must be sought, obtained, and paid by the subject.

Disclaimer – Wellness Information Only; Not Medical Advice

The services and reports provided by Eastern Oregon University (“EOU”) and the Laboratory for Education, Assessment & Performance (“LEAP”) are intended solely for general wellness, educational, and informational purposes. They are not intended to diagnose, treat, cure or prevent any disease, medical condition or nutrient deficiency, and do not substitute for the professional medical advice, diagnosis or treatment of a licensed physician, nurse practitioner or other qualified healthcare provider.

Use of the results sheet or receipt of information from EOU/LEAP does not create a physician-patient or other healthcare provider-client relationship. The information reflects only the specific analyses performed, and does not represent a comprehensive health evaluation. Results may have limitations in scope, accuracy, or applicability and should not be used as the sole basis for any health or medical decision.

You should consult a licensed healthcare provider for any health concerns or before making any changes to your health care, diet, lifestyle or supplement regimen. Never disregard professional medical advice or delay seeking it because of something you have read or received from EOU/LEAP.

Any action you take based on information from EOU/LEAP is done strictly at your own risk. EOU and LEAP make no guarantee, warranty or representation of any particular outcome or result arising from your use of the services or information. To the maximum extent permitted by law, EOU and LEAP disclaim any liability for any direct or indirect harm, injury, damage, loss or expense that may result from your use of the reports, interpretation of results, or decisions made using the information provided.

By participating in the services, receiving the report and/or using the information provided, you acknowledge that you have read, understood and accepted this disclaimer, that you are responsible for your own health decisions, and that you will seek appropriate medical advice from a qualified professional.

Confidentiality of Records: I understand that the personal information required for participation will remain confidential. My name will not be used in any manner associated with any data collected or published. No information will be used that will allow someone to identify me. All personal records will be stored in a locked cabinet. Each participant will be identified by a number coding system. If information collected is published, I will not be identified by my name.

Right to Withdraw: Participation is voluntary. If you decide to participate, you will be asked to sign this consent form. After you sign the consent form, you are still free to withdraw at any time and without giving a reason. Withdrawing will not affect the relationship you have, if any, with the staff, researchers, or the University.

Signature for Consent: I hereby release Eastern Oregon University and any of its agents, officers, and employees, or students acting on their behalf, from any liability with respect to any and all liability, claims, demands, and causes of action whatsoever arising out of or related to any loss, damage, or injury (including death), that may be sustained by me or to any property belonging to me while participating in an activity under this Waiver, or while in, on, or upon the premises where the activity is being conducted, or in transportation to and from said premises. It is my express intent that this Waiver shall bind the members of my family, my heirs, assigns and personal representative(s), and shall be deemed as a RELEASE, WAIVER, DISCHARGE, and COVENANT NOT TO SUE.

☐ By checking this box, I affirm:

- I have read the Waiver and Release and fully understand its terms;
- Lab Staff have answered all questions in regard to my participation;
- I agree to be a participant in the checked fitness assessments on page one;
- I have signed freely and without inducement;
- I am 18 years of age or older; and
- I make this decision informed of its implications and entirely of my own free will.

☐ By checking this box, I agree to allow my fitness assessment data to be pooled and saved for future analysis and research. I understand personal information will not be attached to any personal assessment data. Additionally, any written data sheets will be stored in a locked file cabinet for up to three years. After that, data sheets will be shredded by lab personnel. Digital data will be stored for up to three years on a password protected computer and permanently deleted after three years.

Participant Signature: _____ Date: _____

Signature of Test Administrator: _____ Date: _____

Lab for Exercise Assessment and Performance Pricing

(If you are a current student, EOU alumni, group, or organization, ask about reduced pricing)

Service	Price	Time (hrs)
Sweat Testing	$170	1.5
Basal Metabolic Rate Testing	$50	1.5
VO2 Max / Exercise Efficiency	$150	2
Lactate Threshold Testing	$175	2.5
Vertical Jump Testing	$20	0.5
Hemoglobin Test	$10	0.25
Body Composition & Weight	FREE	N/A
Hand Grip Strength	FREE	N/A
Wearable Device Checkout and Data Report 2-week assessment	$100	1.5
Wearable Device Checkout and Data report 4-week assessment	$200	3
In Lab Heart Rate Variability Biofeedback Training	$45	1.0
24-hour Cortisol Assessment	$150	1.0
Hydration Assessment	$100	1.5
Nutrition Assessment and Wellness Plan	$100	2
Customised Performance or Wellness Package	$450	4