The L.E.A.P.
Laboratory for Exercise Assessment and Performance
Health and Human Performance Department
Eastern Oregon University
Zabel Hall 104
La Grande, OR 97850

INFORMED CONSENT FOR EXERCISE LAB TESTING

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		Strength Assessment		Blood Pressure
	VO2 Max		Heart Rate Variability		Hydration Assessment
	Exercise Efficiency		A1c		Vertical Jump
	Lactate Threshold		Blood Glucose		Body Composition
	Sweat Test (PH)		Hemoglobin - Hematocrit		
	Sweat Test (patch)		Activity Tracking		

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 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 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.

Covid-19 Rapid Test and Precautions: Metabolic and lactate testing will require lab personnel to be within 6-feet of the test participants in order to run the treadmill controls, monitor the testing procedure, conduct finger pricks, and ensure the safety of the participant. To ensure the safety of participants, all lab personnel will be fully vaccinated against Covid-19. Additionally, subjects will be asked to provide proof of Covid-19 vaccination, or complete an over the counter rapid Covid-19 test with a negative result prior to testing. There are currently 2 available over the counter at home rapid covid-19 tests, the Ellume Home Test and the Abbott BinaxNow test. Participants undergoing voluntary fee based exercise testing will be responsible for the cost of the rapid Covid-19 test.

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.

Hematologic Assessments: We use point of care blood glucose analyzers to measure fasted blood glucose as well as blood glucose changes over time in response to food intake to provide subject's insight into aspects of their metabolic health as well as individual response to particular foods. Point of care fasting blood glucose evaluation includes a small finger prick with a micro lancet and the collection of 2-3 drops of blood onto a glucose 'strip', which is analyzed with a blood glucose monitor. A similar process will be used for blood A1c levels which is marker of long-term blood glucose levels, as well as for other hematological markers including blood lipids (cholesterol) and hemoglobin and hematocrit (blood markers of oxygen carrying capacity often used for tracking endurance raining adaptations).

Blood Pressure: Blood pressure can be measured under resting conditions using an automated blood pressure cuff.

Strength Evaluation: The deadlift, bench press, and back-squat can be used to assess strength and power gains in response to a training program. You will choose a weight that you are comfortable lifting, and then completes as many repetitions as you can until 'failure'. Lab staff will be on hand and use all proper spotting techniques to maximize the safety of the subject. Rotational force is assess with a med ball containing an accelerometer.

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. 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 electrode 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.

Activity and Movement Tracking: Wearable sensors can measure sprint speed, distance traveled, jump height, and jump number for sports performance. For daily activity we use the activPAL. This is a miniature electronic logger designed to quantify free-living daily activities. The activPAL unit is taped to the subject's leg and worn for 3-7 days to provide an accurate measure of movement, including time seated, exercise time, and time lying prone.

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.

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.

Institutional Review Board: The LEAP lab protocols have been reviewed and approved by the Eastern Oregon University Institutional Review Board.

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 agree to pay the full amount for lab services checked on page 1 at the time of testing. Lab service fees are listed below in Appendix A;
- 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: _____

APPENDIX A: Lab Service Fee Details

Service	Price		

	Public	Staff	EOU Student
Sweat Testing	$170	$150	$100
Basal Metabolic Rate Testing	$50	$30	$20
VO2 Max / Exercise Efficiency	$150	$100	$50
Lactate Threshold Testing	$175	$115	$65
Jump Vertical and Endurance Testing	$15	$10	$5
Body Composition & Weight	FREE	FREE	FREE
Daily/Weekly Activity Tracking Analysis	$200	$125	$75
Heart Rate Variability Biofeedback Training	$45	$30	$15
Hematological Assessment (HGB, HcT, BG, etc)	$40	$25	$10
Blood Pressure	FREE	FREE	FREE
Hydration Assessment	$40	$25	$10
Max Strength Assessment	$30	$20	$10