UNIVERSITY OF LIMERICK
OLLSCOIL LUIMNIGH

UNIVERSITY OF LIMERICK RESEARCH ETHICS COMMITTEE

RISK ASSESSMENT FORM – PROCEDURES INVOLVING HUMAN SUBJECTS

For Office Use Only: EHSREC No: 2018_xx_yy_EHSRA

Title of Procedure	A Test of Lower Body Power (Standing Vertical Jump or SVJ)

Name of Assessor(s)	Prof Phil Jakeman	**Assessment Date**	01 / 02 / 2018

Does this procedure already have Ethical Approval ? ~~YES~~ / **NO**

If YES please enter approval number and expiry date

Approval No:	Expiry date
	1 / 2/ 2028

1	**Please provide a brief description of the procedure**
	The subject is pre-screened according to the EHSREC approved study protocol The subject is familiarised with the testing procedures under the supervision of a qualified researcher The subject undertakes a pre-assigned warm-up including pre-activation / submaximal vertical jump elements The subject is positioned within the Optojump™ floor parameters as per the attached SOP The subject performs THREE maximal efforts with one minute's rest between each effort.

2	**Location in which the procedure may take place**
√	Multi-purpose gym (PG053)
√	Biomechanics labs (PG044 and PG045)
√	Physiology Lab (PG050)
√	Project Lab (PG048)

3	**Eligibility of subjects to be used**
√	Male and female members of the university community aged between 18 and 35 y with no contra-indication identified by pre-test questionnaire in the SOP

√ Male and female members outside of the university community aged between 18 and 35 y with no contra-indication identified by pre-test questionnaire in the SOP

4	Potential risks. To be explained before obtaining consent
X	No or minimal discomfort only

Risk to the subject:

The subject should not participate in the tests if there is a recent history of illness, pregnancy , pregnancy, injury or medication. These are identified in the pre-test questionnaire.

A standardised warm-up is conducted prior to the test and will include pre-activation / submaximal vertical jump elements.

Discomfort should not exceed that experienced during regular training by the subject.

Risk to the researcher:

There is no or minimal risk to the experimenter in the Standard Operating Procedures for this test. The following are precautions specific to this procedure:

1. Care must be taken to avoid accidental disconnection of the Optojump from the mains. All power leads and cables tracking to the instrument must be firmly secured.

5	Action to be taken in a foreseeable emergency

Action to be taken with reference to the subject feeling unwell at any stage throughout this procedure:

1. Stop the procedure immediately.
2. Check vital signs airways, breathing and circulation (ABC). Subjects are placed supine with lower limbs raised to improve blood flow and counteract the vasovagal influence. Check blood pressure.
3. Apply CPR if required.
4. First aid personnel would be contacted, and an ambulance would be requested if necessary.
5. The University Medical Centre number is 2534 (9:00 am to 5:00 pm)
6. The University emergency number is 3333

6	Level of supervision required for the procedure
√	Named researchers on EHSREC Approved Study trained to the level stated within the SOP for this procedure

7	Other documentation required
√	Standard Operating Procedure (SOP)

STANDARD OPERATING PROCEDURE (SOP)

Lower Body Power Test (Standing Vertical Jump)

Purpose: The Standard Vertical Jump (SVJ) is a validated test of lower body explosive power. This document provides general guidance on how to conduct a standing vertical jump test.

Environment: Environment-controlled exercise laboratory or gym with solid floor. Minimum area required to conduct the test is 6 m^{-2} (i.e. 3 m x 2 m)

Equipment: Optojump™

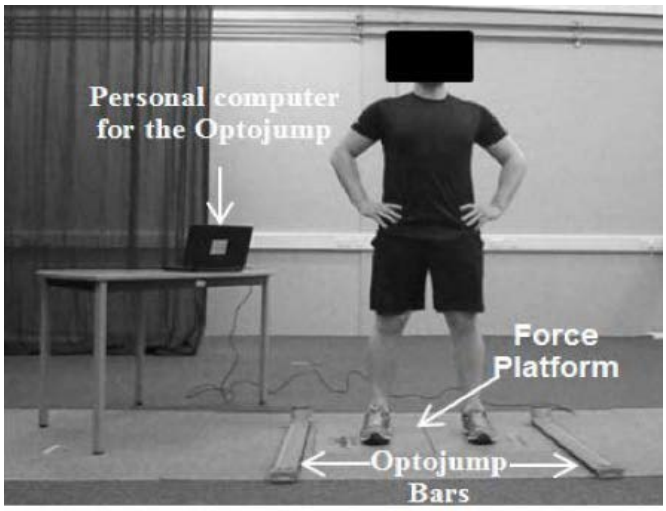
Personnel

For the purpose of this document, a ***researcher*** is a member of staff, post-graduate or undergraduate researcher of the University of Limerick trained in the procedures referred to below. **The researcher is responsible for**:

1. The laboratory area/environment for the conduct of the test;
2. Ensuring the required subject informed consent and pre-test checks are complete and signed off by the principal investigator or person delegated by the principal investigator to this task;
3. The calibration and safe operation of the Optojump™ Equipment.
4. The appropriate level of feedback to the subject (as dictated by the research design) and appropriate storage of data (as dictated by relevant EHSREC approval).

Protocol

1. Following the pre-designated warm-up the researcher will demonstrate the vertical jump test to the subject;
2. The subject ~~participant~~ will perform a practise trial while being observed by the researcher and any technical modifications addressed by the researcher at this point;
3. The subject ~~participant~~ will stand with feet shoulder-width apart in the middle of the Optojump™ designated testing area (i.e. equidistant from left and right base units…. see diagram below)



4. Participants will place their hands on their hips and maintain that position throughout the test.
5. The participant will bend their knees and then jump as high as they can and land within the Optojump test zone.
6. When airborne the participant must keep their legs straight –feet must not fold below the gluteal fold.
7. On landing, the participants must absorb the ground force with 'soft' knees reducing impact on landing.
8. The participant will receive 1min rest between each trial.
9. The participant will complete 3 maximal vertical jump efforts ~~s~~ in total with the highest jump being recorded.