

Landing Mechanics Analysis and Injury Prevention

IRB PROTOCOL NUMBER: #####

The University of Idaho Institutional Review Board has approved this project.

INVESTIGATORS: Joel Tenbrink, Melissa Thompson

FACULTY SPONSOR: Dr. Jeffrey Seegmiller

PARTICIPANT INFORMED CONSENT FORM

10/28/2010

Please read the following material that explains this research study. Signing this form will indicate that you have been informed about the study and that you want to participate. We want you to understand what you are being asked to do and what risks and benefits—if any—are associated with the study. This should help you decide whether or not you want to participate in the study.

You are being asked to take part in a research project conducted by Joel Tenbrink and Melissa Thompson graduate students at the University of Idaho. This project is being done under the direction of Professor Jeffrey Seegmiller, Department of Human Performance, Physical Education, Recreation and Dance, PEB 204. Joel and Melissa can be reached at (208) 885-1155. Professor Seegmiller can be reached at (208) 885-0355.

Explanation of the Study:

The purpose of this study is to compare different techniques that are used to study landing mechanics and to measure the effectiveness of ACL injury prevention training programs. This will require testing at the University of Idaho before and after the Moscow United soccer season. Additionally, you will participate in an ACL prevention program that will be used as part of your warm-up for soccer practices.

For the testing sessions at the University of Idaho we will measure how “hard”, your joint angles and torques when you land from several different positions and perform jumping and cutting maneuvers. Additionally, we will measure activity of your lower extremity and torso musculature during the trials.

On the testing days (pre and post season) you will be asked to wear tight fitting clothing that will not hinder your movement and athletic footwear. When you arrive at the laboratory you will be asked to fill out a short questionnaire and read this consent form.

We will introduce you to the equipment in the lab that will be used in this experiment and demonstrate what you will do as a participant in this study. Once you have agreed to participate and have signed the consent form we will begin to prepare you for data collection.

We will place reflective markers on your body (eg, shoulder, elbow, ankle, knee, hip,) using double stick tape. These markers allow our motion detection camera system to capture the position of your body and reconstruct your body and movement for analysis by computer software. We will additionally place electrodes on your legs and torso. These electrodes are used to obtain electromyographic (EMG) recordings of your muscle activity. To ease in the process of marker placement we ask that you wear tight fitting shorts that are comfortable to move in, such as spandex.

We will then record your movements and measure your maximum stationary and running vertical jump heights. To do this you will 1) start from a stationary position and jump as high as possible and 2) jump as high as possible with a running start. We will then record your movements as you perform several different landing trials. These will include landing after stepping off a box and landing after releasing from a hanging position. You will drop from several heights with a maximum height of 40 inches. Some of the trials will require your arms to be placed in different positions. Lastly we will record your movements as you perform a cutting maneuver, which will require you to take several running steps forward and abruptly change direction. This entire process should take approximately one hour to complete.

During the soccer season your coach will have you do a series of exercises that are designed to train movement patterns for healthy injury prevention. The movements employed during the injury prevention program consist of running, jumping, balance and light strengthening exercises. The injury prevention program should only take about 15 minutes to complete.

After the season we will again have you come to the University of Idaho and we will repeat the testing that was done before the season. We will also have you fill out a questionnaire that asks you about any injuries that you received during the soccer season.

Potential Risks:

This study does not present any greater risk than regular sport activities and at most should only cause minor discomfort. There is the slight risk of musculoskeletal injury during landing, which will be minimized by explaining proper landing technique.

Benefits of Participation:

As a participant you will also learn a little bit about how your musculoskeletal system functions during landing. This study is basic research into methods that are used to study landing mechanics the study's findings could be useful for improving future research techniques and injury prevention programs.

Confidentiality:

All information you provide will be kept locked in the laboratory. Information obtained about you for this study will be kept private to the extent allowed by law. No third party entities will be given any data collected for this study. Only this informed consent document will be identified with your name. You will be assigned a subject identification number for use on all other research documents. The results of this study will be published for scientific purposes. However, your identity will not be given out.

Withdrawal from the Study:

During the course of this study, you may stop at any time. There will be no penalties associated with your withdrawal. All you need to say is that I no longer wish to participate.

Questions:

If you have questions, concerns, or complaints about the research or a research-related injury you, please contact Dr. Jeff Seegmiller (208-885-0355). If you have any questions during the study feel free to ask an investigator at anytime you feel is appropriate.

If you have questions about your rights as a research participant, or concerns or complaints about the research, you may contact the Human Assurances Committee at hac@uidaho.edu or (208) 310-6612.

I have reviewed this consent form and understand and agree to its contents.

Participant Name: _____ Date

Participant Signature: _____

Date of Birth: _____

Parent or Guardian Name: _____ Date

Parent or Guardian Name: _____