

## KIN 471 Experiential Learning Event

The **purpose** of this event is to have undergraduate kinesiology students practice their skills in interviewing a client and performing assessments. The focus of the event this year is exercise for osteoporosis. If you volunteer for this event, you will be paired with a kinesiology student, who will complete the following assessments with you:

- Medical history and physical activity questionnaire
- Resting heart rate, blood pressure, height, weight, waist circumference
- Body composition analysis using bioelectrical impedance analysis
- Strength and mobility assessments: Grip Strength, Five times sit-to-stand test, walking speed test, balance test
- Posture check and tips on alignment
- Action planning with Canada's Physical Activity Guidelines
- Learn how to do each of the following with good form, tailored to ability: Squat (sit-to-stand or body weight squat); Push-up (wall, counter or on floor); Bow and arrow pull with theraband; Calf raise; Lateral raise; back extension exercise for posture.

Some of the activities involve physical exertion, and sitting, standing or lying down. You can choose to opt out of any of the activities if you wish without providing a reason. You must wear comfortable clothing and clean running shoes.

The student will provide you with a copy of your assessment and some interpretation of what it means. The student will also take a copy of the assessment so that they can write a report on the assessment. The course instructor will evaluate the students' professionalism, preparedness and the quality of the report that they write. Students have varying levels of experience and knowledge, and are not certified health professionals or exercise professionals. **This event does not replace consultation with a health care provider or certified exercise professional.** It is an opportunity for our kinesiology students to practice their skills.

**You may not participate as a volunteer if you:**

1. Are allergic to rubbing alcohol or adhesives.
2. Have a symptoms of or known diseases that are not controlled by medication, or would make it risky for you to participate in exercise without consulting a physician, such as: uncontrolled high blood pressure; history of heart attack or stroke or other heart or cerebrovascular problems (e.g., history of transient ischemic attack, heart murmur); lung disease; shortness of breath at rest, at night

or with mild exertion; pain in chest, neck or arms with exertion; palpitations or high heart rate; dizziness or frequent fainting; uncontrolled diabetes or high cholesterol; or peripheral vascular disease or neuropathy. If you are unsure, or answer yes to any of the questions on the PAR-Q questionnaire, you are encouraged to consult a physician prior to participating.

3. Have any implantable electronic devices such as pacemakers or implantable cardioverter-defibrillators
4. Are pregnant or may possibly be pregnant.

### **Benefits of Participation:**

Your involvement will provide kinesiology students at the University of Waterloo with an opportunity for experiential learning. You will receive a booklet with information about yourself, including body composition, strength and balance, and how it compares to reference values. You will also receive some exercise information.

### **Explanation of Procedures and Risks:**

#### **1. Height, Weight and Waist Circumference**

Your height and weight will be measured using a ruler and scale and your waist circumference using a cloth tape. These measures may be combined and used to compare your values an average, age and gender matched group.

#### **2. Bioelectrical Impedance Analysis**

Your body composition will be determined using bioelectrical impedance analysis (BIA). This involves the introduction of a low-level electrical signal into the body and then measures how the signal is affected by the body. Individuals will be asked to void their bladder prior to the assessment, as extra fluid affects the accuracy of the measurements. The procedure relies on the volunteer being properly hydrated and individuals will be instructed as to the proper hydration status prior to arrival (see instructions below). The skin at the electrode sites is cleaned with alcohol. Electrodes are placed on the wrist and hand, ankle and foot. BIA should not be used on individuals with any implantable electronic devices such as pacemakers or implantable cardioverter-defibrillators or in women who are pregnant or suspected of being pregnant. The procedure takes less than a minute to conduct.

#### **3. Strength and mobility assessments, and exercises**

You will be asked to do tasks that challenge your balance, such as standing on one foot, or getting in and out of a chair quickly. There is a potential for exercise related adverse events such as muscle soreness or dizziness, and other exercise-related outcomes, such as changes in blood pressure and heart rate. It is possible that you could fall if you lose your balance. You will also be asked to grip the strength tester as

hard as you can, which can be uncomfortable or cause pain. If you have arthritis in your hands, you may consider declining this test.

### **Special Instructions:**

Wear comfortable clothing and running shoes. Do not attend the event if you are not feeling well.

Hydration affects the results of body composition testing. Therefore, for the most accurate results, it is important that you come to the event:

Well-hydrated (eight, 8oz glasses of water per day);  
Go to the bathroom within 30 minutes of testing;  
Not having a large meal within 4 hours of the testing;  
Not consume beverages or food that cause dehydration (e.g., herbal diuretics)  
Not ingested caffeine containing beverages, such as coffee 4 hours before testing;  
Not engaged in exercise for more than 4 hours prior to the testing;  
Not consumed alcohol for more than 8 hours prior to the testing.

### **Withdrawal from the Testing:**

You are free to withdraw from this testing at any time - simply indicate to the student or to someone else leading the event that you no longer wish to participate.

### **Confidentiality and Security of Data:**

To ensure confidentiality of the analysis results, your name will only be on the booklet that you take home. The analysis results will not include any personal identifiers. However, because of the nature of the event, you will present at the same time as other students, staff and attendees participating in the event. There will be no way to protect your identity. A copy of your results, without your name, will be kept by the student and by the Department of Kinesiology. A separate copy of your signed consent form will be kept in a locked laboratory or storage area. It will not be kept with your results.

We will provide you with the opportunity to sign up to be notified of future events or opportunities to participate in research at the University of Waterloo. You can choose not to do this and still participate in the event. If you do provide your contact information for future notifications, it will be recorded in a file that is kept on a password protected computer, separate from your results or consent form.

### **Contact Information:**

If you have any questions, please contact Lora at (519) 888-4567 ext. 36357.

### **Consent of Participant**

By signing this consent form, you are not waiving your legal rights or releasing the investigator(s) or involved institution(s) from their legal and professional responsibilities.

I have read the information presented in the information letter about the KIN 471 event being conducted by the Department of Kinesiology at the University of Waterloo. I have had the opportunity to ask any questions related to this event, to receive satisfactory answers to my questions, and any additional details I wanted. I am aware that I may withdraw from the testing without penalty at any time by advising the organizers of my decision.

With full knowledge of all foregoing, I agree, of my own free will, to participate in this testing.

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature of Participant

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Dated at Waterloo, Ontario

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Witnessed