



## CONSENT TO PARTICIPATE IN RESEARCH

### Identifying the vibratory characteristics of various golf putters and their effect of golfer perception of performance – A study sponsored by PING, Inc.

You are asked to participate in a research study conducted by Dr. Leah Bent (Faculty Advisor) and Daniel Genaro (MSc student) from the Department of Human Health and Nutritional Sciences at the University of Guelph. This project has been reviewed by the Research Ethics Board for compliance with federal guidelines for research involving human participants.

To be eligible for this study, you must be between 18 and 40 years of age. You must be in good general health. You will not be eligible to participate in this study if you:

- Are pregnant
- Have a history of cardiovascular disease, stroke or diabetes
- Have a neurological or musculoskeletal impairment that prevents reaching, gripping, swinging, or light exercise. For example, an injury, disorder or pain in your body's muscles, tendons, nerves, ligaments, joints or any structure that supports the limbs, neck and back.
- Have uncontrolled hypertension (Systolic blood pressure above 135 mm Hg). Hypertension is based on blood pressure, a measure of the pressure or force of blood against the walls of blood vessels as it circulates throughout your body. The systolic blood pressure is the top or greater number on your blood pressure reading and is the measure of the pressure in the blood vessels when the heart contracts to push the blood throughout the body.
- Experience common occurrences of dizziness

If you have any questions or concerns about the research, please feel free to contact:

	Name & position	Dept./Address	Phone No.	E-Mail
Faculty with Principal Responsibility:	Dr. Leah Bent	Human Health & Nutritional Science	X56442	<a href="mailto:lbent@uoguelph.ca">lbent@uoguelph.ca</a>
Co-investigator	Daniel Genaro	Human Health & Nutritional Science	X52116	<a href="mailto:dgenaroj@uoguelph.ca">dgenaroj@uoguelph.ca</a>
Co-investigator	Dr. Davis Forman	Human Health & Nutritional Science	X52116	<a href="mailto:dforman@uoguelph.ca">dforman@uoguelph.ca</a>

## PURPOSE OF THE STUDY

The purpose of this study is 1) to characterize how vibration magnitude and frequency differ between golf putters during golf putts, and 2) how do these mechanical properties correlate with a golfer's perception of successful performance.

## PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

Please read and complete the consent form and questionnaire upon arrival. We will discuss the complete protocol of the study and the equipment used. If you have any questions about the study, protocol, or devices please do not hesitate to ask.

We will:

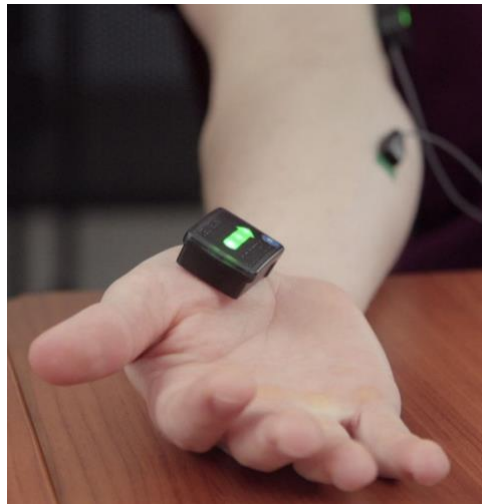
- Ask you to perform multiple putts with various golf putters.

- Place accelerometer sensors on the backs of your hands to measure the vibration magnitudes and frequencies that are generated during a golf putt.
- Ask you to provide feedback after each putt on how the putter felt during the attempt and how your perceived your own performance to be when you contacted the golf ball.

The total length for participation in this study will be 1.5 hours on one occasion.

Individual and study results will be available to subjects following the completion of data collection. You may contact Dr. Leah Bent or Daniel Genaro by email or phone to receive the research findings. Please note the study findings are in no way a diagnosis.

**Accelerometer sensors (left picture) will be placed on your skin with an adhesive (right picture). The locations of these placements will be the back of each of your hands (not shown below):**



## POTENTIAL RISKS AND DISCOMFORTS

There are few risks participating in this study. The following are potential risks that could occur:

The adhesive from the accelerometer sensors may irritate the skin. The area of skin where the sensors are located will be shaved with a disposable razor and cleaned with alcohol swabs before and after application to minimize the risk of skin irritation.

This study will involve you performing a high volume of golf putt attempts. This is the equivalent to a light session of recreational activity, and it is possible you may experience delayed onset muscle soreness within 24-48 hours following the protocol, which should subside after no more than 72 hours post participation.

The questions asked in this study for perceptual feedback are not of a personal nature, and so there is little to no risk of you sharing embarrassing or uncomfortable information with the research team. You will not be required to divulge any information you are not comfortable sharing.

## POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY

There will be no direct benefit by participating in this study. However, participants in the scientific community may be interested in the scientific knowledge of how mechanical properties of sporting implements contribute to an athlete's perception of success.

There is also the possibility that the results of this study will lead to commercial innovation for PING, Inc.

## **PAYMENT FOR PARTICIPATION**

For your time, participants will receive a golf hat from PING®.

## **CONFIDENTIALITY**

Every effort will be made to ensure confidentiality of any identifying information that is obtained in connection with this study.

All the data collected will be stored on Dr. Leah Bent's password protected lab computer. The computer is located in Dr. Leah Bent's locked laboratory. Your data files will only be accessible to Dr. Bent and Daniel Genaro. A subject code will be generated to ensure your name will not be attached to the computer data. Any documents generated with your name will be kept in a separate password protected file, only available to Dr. Bent and Daniel Genaro.

Identified records will be located on Dr. Bent's lab computer and all electronic and hard copies of data will be stored in her locked office at the University of Guelph for 5 years or until data is published (whichever comes first), with the exception of contact tracing for COVID-19.

## **PARTICIPATION AND WITHDRAWAL**

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may exercise the option of removing your data from the study. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise that warrant doing so.

## **Informed Consent for In-Person Research Activities**

### **Study Title: Identifying the vibratory characteristics of various golf putters and their effect of golfer perception of performance**

**Principle Investigator:** Dr Leah Bent, [lbent@uoguelph.ca](mailto:lbent@uoguelph.ca)

#### *COVID-19 and Face-to-Face Research*

This document contains important information about resuming in-person research in light of the COVID-19 public health crisis. COVID-19 refers to the virus being spread in communities across the globe. We are providing you with important information about COVID-19 and we ask that you consider the following information to determine if study participation is right for you at this time.

COVID-19 is a respiratory condition caused by SARS-CoV2, which can be spread by respiratory droplets, mainly from person-to-person. This can happen between people who are in close contact with one another (less than 2 metres). It is also possible that a person can get COVID-19 by touching a surface or object (such as a doorknob or counter surface) that has the virus on it, then touching their mouth, nose or eyes. As new vaccines emerge and the public has access, it is important to remain vigilant in all safety precautions until Public Health deems it appropriate to change our behaviour.

This study requires in-person visits and it is important to understand that this may increase your exposure to COVID-19. However, the University of Guelph and researchers have taken certain precautions to reduce the risk for you, the research staff, and their families (among others in the community) safe. The safety plans described below aim to

minimize the spread of COVID-19 and are consistent with current Ontario Public Health and University of Guelph Environmental Health and Safety guidelines.

### *Mandatory Vaccination (On-Campus)*

The Council of Ontario Medical Officers of Health has indicated that vaccination against COVID-19 is the single most effective public health measure to reduce the spread of COVID-19. The University of Guelph is committed to protecting the community and requires all faculty, staff, students and visitors to be vaccinated against COVID-19 in order to be on campus. Continued safety measures such as wearing masks, handwashing and distancing will further protect everyone who engages in face-to-face research.

Those who cannot be vaccinated for medical reasons or on other grounds protected by the Ontario Human Rights Code are exempt from this requirement. However, individuals who have an exemption must receive a negative COVID-19 rapid test result no earlier than 72 hours before accessing University of Guelph facilities.

### *Participant Screening*

**All participants will be screened 24 hours prior to scheduled study visit and must complete the [University of Guelph COVID-19 Daily Screening Form](#) the day of your appointment (prior to the study visit).** While completing the Screening Form, please choose “Volunteer with the University” and click “Next;” you will then be asked to attest to your vaccination or exemption status. The research team will confirm that the two screens are complete before proceeding with your visit. You will be asked about information regarding your health in the 14 days prior to the appointment, with special attention to the preceding 48 hours.

#### *Where will the study take place?*

Dr Leah Bent’s lab, located at the University of Guelph campus, Animal Science and Nutrition (ANNU) building, room 373 and/or in the teaching labs of the John T. Powell Building, Room 208 A or B.

#### *What will happen the day of the study visit?*

1. On the day of testing, you will be asked to arrive at the university campus at your scheduled time.
2. Participants are encouraged to travel to campus in their own vehicles rather than public transportation, if possible. You are also encouraged to attend campus alone.
3. Please follow rules to ensure no parking infractions (i.e. do not park in tow away zone, accessible parking without permit, parking in unmarked spots).
4. All research participants are asked to wait outside until called to enter JTP, room 2264.
5. You are required to wear a mask prior to and following entry into the building or if distance cannot be maintained with other patrons outside. **If you do not have access to a mask, please let the research team know prior to your appointment and one will be given to you on the day of your visit.** Once your mask is on, you are asked to try not to touch your face or eyes with your hands.
6. You will be asked to wash or sanitize your hands upon entry into the building and lab space, as well as before exiting.
7. Participants will follow the research personnel to the designated study space and asked to follow their instructions once inside.
8. Participants are advised to use washroom facilities at home prior to coming to campus. However, washroom facilities are available on campus. These facilities have approved procedures for use that must be followed.
9. Once the study visit is complete, a member of the research team will lead you to the designated exit. You are asked to go directly to your mode of transportation without entering any other University buildings as you leave.
10. If you are unable or unwilling to follow these guidelines, please notify the researchers ahead of time.

### *Safety Precautions*

In addition to participant screening before your in-person visit, you will find the following additional measures have been put in place to help reduce the risk of spreading or contracting COVID-19:

- The researchers will be wearing masks for the entire duration of the experimental procedure, and, depending on how long they are in close proximity with you during initial setup, gloves, face shields and lab coats
- Researchers will wash hands before and after experimental procedure and use hand sanitizer prior to and after every physical contact point during the experiment
- Physical distancing will be practiced whenever possible and number of working personnel has been decreased to minimize personal interactions
- Consent and screening questionnaires will be administered via email or by telephone prior to the experimental session to minimize the time of contact
- The testing location has been relocated to a larger room to improve ventilation
- All equipment including the testing bed for the participant will be disinfected with a Lysol spray prior to and after each experimental session
- The lab space has been reorganized to allow for one-way traffic that is marked with floor decals. Indicators of 2 meters apart are also included to help establish appropriate physical distancing when possible.
- Two weeks following your testing session, you will be contacted by the researcher(s) and be asked to answer the participant COVID-19 screening questions listed above once again to confirm that you have not become symptomatic since your visit to campus.

### *Risks & Confidentiality*

COVID-19 is a serious health threat, and the situation is evolving daily. The risk will vary between and within communities, but given the increasing number of cases in Canada, the risk to Canadians is considered high. For most people, COVID-19 may only mild or moderate symptoms, such as fever and cough. For some, especially older adults (aged 65 and older) and people with compromised immune systems or underlying medical conditions, it can cause more severe illness, including pneumonia. Even in mild cases it is not known what the long-term health consequences may be.

There is a possibility that during your research activities you could come into contact with someone with COVID-19. If this were to occur, the University of Guelph is required by the Public Health Unit to collect and retain on file your email address or phone number to share with them for contact tracing purposes. **As such, anonymity as a research participant cannot be maintained. Should you choose to withdraw participation from this study, this personal information cannot be withdrawn from University of Guelph or Public Health records.** Please be assured that Public Health will not have access to any other data collected for this research study.

### *Vulnerable Populations*

Certain individuals or groups are at greater risk of getting an infection and developing severe complications from COVID-19 and these populations must be supported and protected during this time.

Vulnerable individuals/groups may include, but are not limited to:

- Individuals over the age of 65 or children under the age of 16;
- Individuals with pre-existing medical conditions (e.g. immunocompromised, diabetes, lung disease);
- Individuals experiencing socio-economic challenges, such as inadequate or overcrowded housing;
- Indigenous communities who may suffer disproportionately due to systemic inequalities.

Face-to-face research involving vulnerable populations will require added considerations and measures for safety and, in some instances, participation in the research may not be advisable. Therefore, if you self-identify as vulnerable or are

uncertain whether you fall within a vulnerable population, it is imperative that you inform the research team and ask for further guidance.

**Please note: If you fall within a vulnerable population described above but are fully vaccinated (i.e., you received a complete vaccine series  $\geq 2$  weeks ago), you are no longer considered a high-risk population in the COVID-19 context. All COVID-19 safety precautions listed above must be followed, even if you are fully vaccinated.**

*Who can I contact if I have questions?*

If you have any questions, concerns or would like to speak to the study team for any reason, please contact Leah Bent at lbent@uoguelph.ca.

If you have questions regarding your rights and welfare as a research participant in this study (REB# 21-11-025), please contact: Manager, Research Ethics; University of Guelph; reb@uoguelph.ca; (519) 824-4120 (ext. 56606).

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## **Consent Form:**

I have read and understood the information above regarding my involvement in this study.

I have read the Informed Consent for In-Person Research Activities and any questions about the study and/or COVID-19 have been answered. I freely consent to participate in this research.

This project has been reviewed by the Research Ethics Board for compliance with federal guidelines for research involving human participants. If you have any questions regarding your rights and welfare as a research participant in this study (REB # **21-11-025**), please contact: the Director of Research Ethics; University of Guelph; [reb@uoguelph.ca](mailto:reb@uoguelph.ca); 519-824-4120 ext. 56606. You do not waive any legal rights by agreeing to take part in this study. Please contact us with any questions or concerns regarding the research. Dr. Bent (519) 824-4210, ext 56442 or [lbent@uoguelph.ca](mailto:lbent@uoguelph.ca).

If you decide to participate, **you are free to withdraw your consent and discontinue your participation at any time. You may also withdraw your data from the study at any time up to the point when the data are submitted for presentation/publication.** Should you withdraw your consent, your name and contact information will remain in our records should you need to be notified by Public Health for COVID contact tracing.

**Your signature will be an indication that you have decided to partake in the experiment, and have read the information provided above.**

\_\_\_\_\_  
Your name (please print)                      Signature                      Date/Time

If you wish to receive a copy of your data in the future or a copy of the publication, please provide the best way to contact you in the future below:

email: \_\_\_\_\_ OR mailing address: \_\_\_\_\_