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UF | Institutional Review Board
UNIVERSITY of FLORIDA

INFORMED CONSENT FORM
to Participate in Research, and

AUTHORIZATION
to Collect, Use, and Disclose Protected Health Information (PHI)

INTRODUCTION

Name of person seeking your consent:_____

Place of employment & position: _____

GENERAL INFORMATION ABOUT THIS STUDY

1. Name of Participant ("Study Subject")

_____

2. What is the Title of this research study (this "Research Study")?

High Intensity Interval Training: Optimizing Exercise Therapy to Mitigate Cardiovascular Disease Risk Following Breast Cancer Chemotherapy

3. Whom do you call if you have questions about this Research Study (the "Study Team")?

If you have any questions about your upcoming appointments at the Integrative Cardiovascular Physiology Laboratory, you may reach us by phone at 352-294-1746 or by email at ICPL@hhp.ufl.edu. The principal investigator, Dr. Demetra Christou, may be reached by phone at (352) 294-1715 (office) or by email at ddchristou@ufl.edu.

4. Who is paying for this Research Study?

The sponsor of this study is the National Institutes of Health and the University of Florida.

5. In general, what do you need to know about this Research Study?

Agreeing to become involved in any research is always voluntary. By signing this form, you are not waiving any of your legal rights. If you decide not to participate in this research, you will not be penalized in any way and you will not lose any benefits to which you are entitled. If you have questions about your rights as a research subject, please call the University of Florida Institutional Review Board (IRB) office at (352) 273-9600.

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a) In general, what is the purpose of the research, how long will you be involved?

Health professionals recommend exercise training during and following treatment for breast cancer. Exercise may reduce the risk of health complications and recurrence of breast cancer. But the best type of exercise to maximize health benefits remains unknown. The purpose of this study is to investigate in women who have undergone breast cancer chemotherapy: (1) the effects of two types of supervised home-based exercise over a 12-week intervention period; and (2) the durability of these effects over a 12-week observation period. The exercise training will be performed on an all-extremity stationary cycle that involves cycling with the legs while pushing/pulling with the arms. The study will mainly focus on your heart and blood vessel health but will also assess your physical, social, emotional, and functional well-being. All assessments will be completed at baseline and after the 12-week intervention and 12-week observation periods.

Your study participation will be completed over ~7-8 months.

b) What is involved with your participation, and what are the procedures to be followed in the research?

This study will take place at the University of Florida campus at the Integrative Cardiovascular Physiology Laboratory:

1864 Stadium Drive
Gainesville, FL 32611
352-294-1746
icpl@hhp.ufl.edu

First, you will complete 2 visits at the Integrative Cardiovascular Physiology Laboratory to obtain screening and baseline measures. Each visit will take ~ 3 hours and, if preferrable, both visits can be scheduled on the same day.

If you pass the screening, you will be randomly assigned, much like the flip of a coin, to 1 of the following 3 groups:

1) **High intensity interval training (HIIT) group.** If you are assigned to this group, you will perform supervised HIIT at home, 3 days per week for 12 weeks. HIIT consists of 40 minutes of alternating periods of fast- and moderate-pace cycling. HIIT is described in detail in section 7.

2) **Moderate intensity continuous training (MICT) group.** If you are assigned to this group, you will perform supervised MICT at home, 3 days/week for 12 weeks. MICT consists of 47 minutes continuous moderate-pace cycling. MICT is described in detail in section 7.

3) **Usual care group.** If you are assigned to this group, you will continue your habitual physical activity for the duration of the study. Once you complete the study, you will have the opportunity to perform supervised HIIT or MICT at home, 3 days/week for 12 weeks; you may choose either type of exercise.

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Regardless of your group, it is important that you keep your habitual physical activity and diet the same while you are in the study. Please let us know as soon as possible if there is any change in the medications you are taking.

You will complete all exercise training sessions at home. A member of our research team will provide remote live supervision of the exercise training using video conferencing (UF Zoom) under the guidance of our study clinicians. We will customize your exercise training to your fitness level and will gradually progress the duration and intensity of exercise.

Within 1-2 weeks after you complete the 12-week intervention period, you will complete 2 visits at the Integrative Cardiovascular Physiology Laboratory to repeat the measures we obtain at baseline. You will be encouraged to continue the exercise training until you complete both visits. Each visit will take ~3 hours and, if preferrable, can be scheduled on the same day. You will also complete a 30-minute interview by audio-conference to answer questions about your study experiences and factors that supported or obstructed your exercise participation.

Finally, within 1-2 weeks after you complete the 12-week observation period, you will complete 2 visits at the Integrative Cardiovascular Physiology Laboratory to repeat the measures we obtain at baseline. Each visit will take ~3 hours and, if preferrable, can be scheduled on the same day.

c) What are the likely risks or discomforts for you?

We will make every effort to reduce any risks and discomforts. In this section we describe the <u>likely</u> risks or discomforts for you. We also provide a <u>detailed</u> description of all possible discomforts and risks in question 12. It is likely that you will experience a “pins and needles” feeling in your arm for a few minutes during the blood vessel test. This feeling quickly goes away at the end of the test. You may experience discomfort and possibly bruising from the blood draw. It is likely that you may feel tired or sore from the exercise. Exercise is also associated with a risk of falling, a very small risk of injury, a small risk of developing an abnormal heart rhythm and minimal risk of having a heart problem (e.g., heart attack) or stroke that could lead to death. The possibility of these occurring in the current study is low. This is because everyone will undergo health screening before beginning the exercise training. Women with known heart disease that would elevate their risk of exercise training will be excluded. We will also minimize risks by supervising all exercise sessions. To reduce the risk of injury from exercising, we will gradually increase the duration and intensity of exercise based on your fitness. If you have diabetes, you may experience low blood sugar levels during or following exercise and this risk may be elevated if you use certain medications. Our study endocrinologist will provide guidance to help you safely manage your blood sugar.

d) What are the likely benefits to you or to others from the research?

We will provide supervised home-based exercise training to you at no cost. Some studies show that exercise improves physical function, mood, self-esteem, sleep, and quality of life in people who have cancer. In people who have cancer, studies

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also show that exercise reduces fatigue, anxiety, and depression. Exercise may improve your heart and blood vessel health. But individual responses vary so you may or may not benefit from participating in this study. The information we collect from your participation will help expand medical knowledge about the effects of HIIT compared to MICT exercise following chemotherapy for breast cancer. This information will help optimize exercise prescription which may benefit other women who have undergone breast cancer chemotherapy.

e) What are the appropriate alternative procedures or courses of treatment, if any, that might be helpful to you?

There are no alternatives. If you do not want to be in this study, tell the person listed in question 3 and do not sign this form.

A description of this clinical trial will be available on http://www.ClinicalTrials.gov, as required by U.S. Law. This Web site will not include information that can identify you. At most, the Web site will include a summary of the results. You can search this Web site at any time.

More detailed information is provided within the remainder of this form. Please read it before deciding if you wish to be in this study.

WHAT CAN YOU EXPECT IF YOU PARTICIPATE IN THIS STUDY?

6. What will be done as part of your normal clinical care (even if you did not take part in this Research Study)?

All procedures scheduled for this study are for research purposes and are not part of your normal clinical care. Being in this study should not affect or replace the care you currently receive from your doctor.

7. What will be done only because you are in this Research Study?

To determine your eligibility to participate, you will complete a medical history, physical exam and assessments of your heart health, fitness level, and physical activity habits. The results of these screening tests and your medical records will be reviewed to decide if you meet all study eligibility criteria. You will also be screened for conditions that elevate your risk of experiencing problems with exercise training (e.g., heart problems, muscle or joint problems that may prevent you from being able to exercise).

- ***Exercise intervention.*** If you pass the screening, you will be randomly assigned, much like the flip of a coin, to 1 of the following 3 groups:

  1) HIIT group. If you are assigned to this group, you will perform supervised HIIT at home, 3 days per week for 12 weeks. HIIT consists of 40 minutes of alternating periods of fast- and moderate-pace cycling.

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2) MICT group. If you are assigned to this group, you will perform supervised MICT at home, 3 days/week for 12 weeks. MICT consists of 47 minutes continuous moderate-pace cycling.

3) Usual care group. If you are assigned to this group, you will continue your habitual physical activity for the duration of the study. Once you complete the study, you will have the opportunity to perform supervised HIIT or MICT at home, 3 days/week for 12 weeks; you may choose either type of exercise.

Interval Training

Warm up: moderate pace 10 min	Interval: fast pace 4 min	Active Recovery: moderate pace 3 min	Interval: fast pace 4 min	Active Recovery: moderate pace 3 min	Interval: fast pace 4 min	Active Recovery: moderate pace 3 min	Interval: fast pace 4 min	Cool down: moderate pace 5 min

Continuous Training

Warm up: moderate pace 10 min	Training moderate pace 32 min	Cool down: moderate pace 5 min

You will be provided with the following equipment to use at home during the exercise training: an all-extremity stationary cycle, small electronic devices to measure your heart rate, blood pressure and oxygen levels and a tablet for video conferencing. If you do not have access to Wi-Fi, a data plan will be activated on the tablet at no cost to you to allow supervision of the exercise training. Using video during UF Zoom meetings will allow our team to safely supervise your exercise sessions but the video will not be recorded. Our research team will deliver and set up the exercise equipment at your home and will teach you how to use the devices and technology.

The exercise sessions will be about 1 hour long and will include a period of warm up, interval (HIIT) or continuous (MICT) training, cool down and stretching. We will customize your exercise training to your fitness level. You will begin with brief low- to moderate-intensity exercise as tolerated. Then we will gradually progress the duration and intensity until you can perform the prescribed 40-minute HIIT or 47-minute MICT exercise protocols. During each exercise session we will note any issues you may be experiencing (e.g., fatigue, balance problems) and will monitor your heart rate, and duration and intensity of your exercise. We will track your blood pressure and oxygen levels before and after exercise. If you have diabetes, we will also track your blood sugar levels before and after exercise. A member of our research team will lead each virtual exercise session and will guide you through the setup and measurement of your heart rate, blood pressure, and oxygen levels (and blood sugar if you have diabetes).

- ***Blood vessel tests.*** You will lie still on your back. We will place a pencil-like device on your skin at your neck to record your blood pressure. A pressure cuff on your thigh will be partially inflated for a few seconds and deflated to measure your blood pressure. We will also place a device on your arm, neck and head that uses sound waves (ultrasound) to create and record pictures of your blood vessels and estimate blood flow. A small pressure cuff will be inflated on your forearm for 5

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minutes and deflated. This will increase the blood flow to your arm which may widen your blood vessel for a few minutes.

It is important to place the ultrasound device over the same location on your arm during the two visits on which we perform this test. For this reason, we will ask your permission to photograph the position of the device on your arm. We will keep the photograph(s) on a password-protected computer. We will not show the photograph(s) to anyone outside our research team and will destroy the photograph(s) when you complete the study. You have the right to refuse to be photographed.

- ***Echocardiography test.*** We will place a small device that uses sound waves (ultrasound) firmly on your chest to create and record images of your heart. This test is only for research purposes and will be performed at rest and immediately after your maximal exercise test. If there are obvious abnormal findings, the images will be sent to cardiology for review and recommendations, and these will be shared with your provider.
- ***Blood draw.*** An experienced member of our research team will draw blood on two occasions by inserting a small needle in one of your blood vessels. If your doctor's office has placed a port under your skin, we can draw the blood through the port. The total amount of blood we will draw over your study participation is ~7 TBSP. We will use these blood samples to evaluate markers that are associated with exercise and heart and blood vessel health.
- ***Medical history.*** We will obtain your medical history including information about your health conditions, surgeries, and medications from your medical records. We will ask you to review this information and let us know of any changes.
- ***Disease- and treatment-related medical records.*** While you are in the study, we will obtain reports about your disease and treatment for cancer from your medical records.
- ***Physical exam.*** You will complete a physical exam like the one you have in your doctor's office. This will include a review of your medical history and check of your general physical condition. Our clinician will check your head and neck, heart, lungs, abdomen, nerves, muscles, joints, and skin.
- ***Heart rhythm test.*** We will place small devices (self-adhesive electrodes) on your chest to record the electrical activity of your heart during each visit.
- ***Heart rhythm test during controlled breathing.*** We will record the electrical activity of your heart for 5 minutes by placing small devices (self-adhesive electrodes) on your chest. You will be asked to breathe in/out at a specified pace.
- ***Blood pressure.*** We will measure your blood pressure by inflating a cuff around your arm during each visit. We will also measure your blood pressure during the exercise sessions.
- ***Maximal exercise test.*** This test will measure how well your heart can cope with increasing levels of exercise. Our clinician will monitor your heart rhythm, blood pressure, and your body's oxygen use (a measure of fitness) while you walk on a

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treadmill. To measure your body's oxygen use, you will breathe through a mouthpiece while wearing a nose clip to prevent air from going through your nose. The treadmill will begin slowly, and the speed (pace) will gradually increase based on your walking ability and your heart rate. Once you complete a 6-minute warm-up, the speed will remain the same while the treadmill will slightly tilt every 2 minutes to produce the effect of going up a small hill until you reach your maximal capacity to exercise. This usually takes 12 to 15 minutes beyond the warm-up period. At certain times during the test, we will ask you to point to a scale which tells us how hard you feel you are working. If any abnormalities occur during the test, our clinician will inform you and will provide this information to your provider to determine if further testing is necessary. You will need to be cleared by your provider before returning to participate in the study.

- ***6-minute walk test.*** The purpose of this test is to assess your ability to walk as far as possible in 6 minutes. You are permitted to slow down, to stop, and to rest, as necessary. The test will be completed at your pace, walking back and forth between 2 cones while you wear small devices on your feet, wrists, and lower back. These devices record your movement pattern while you walk.

- ***Timed up & go test.*** We will record the amount of time it takes for you to stand up from an arm chair and walk 10 feet away, turn, walk back to the chair, and sit down again.

- ***4-stage balance test.*** The test requires maintaining 4 standing positions that get progressively harder to maintain: 1) stand with feet side-by-side; 2) place the instep of one foot so it is touching the big toe of the other foot; 3) place one foot in front of the other, heel touching toe; 4) stand on one foot. A member of our research team will stand next to you, hold your arm, and help you get in the correct position. When you are steady, we will let go but remain ready to assist you if you lose your balance. A second member of our research team will time how long you maintain each position. If you can hold a position for 10 seconds without moving your feet or needing support, the test will progress on to the next position; if not, the test will stop.

- ***30-sec chair stand test.*** You will sit in the middle of a chair with a straight back without armrests, place your hands on the opposite shoulder crossed at the wrists and keep your feet flat on the floor. On "Go", you will rise to a full standing position and then sit back down again and repeat this for 30 seconds. The number of times you come to a full standing position will be counted.

- ***Handgrip test.*** You will sit comfortably on a chair with your back supported and forearms resting on the chair's arms. You will apply grip force on a handheld device that measures grip strength. Measurements will start with right hand and then repeat with left hand until 3 measurements are recorded for each hand.

- ***Physical activity and diet.*** We will evaluate your physical activity by using a small plastic wearable device, weighing less than 1 ounce (~2 × 1 × ½ inches), that collects

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and stores information about the duration and intensity of your activity. The device is attached to an elastic belt that you will wear around your waist over your hip for a week. We ask that you wear the device for 7 days, 24 hours/day including while sleeping and only take it off while performing activities in water (e.g., swimming) or while bathing/showering because it is not waterproof (please see handout for detailed instructions). At the end of this monitoring period, you will return the device to allow us to download the information that is stored on it. We will also ask you questions about your physical activity. In addition, we will ask you to answer questions about your diet on two weekdays and a weekend day. These physical activity and diet assessments will be completed at baseline and weeks 4 and 8 and 12 of the intervention and observation periods.

- ***Questionnaires.*** We will ask you questions about your sleep, physical, social, emotional, and functional well-being at baseline and at the end of the intervention. You will have the option to complete these questionnaires at home for your convenience. On every visit we will ask you questions about your: sleep, food, and drink, physical activity, tobacco, alcohol, caffeine, and medication use over the past 24 hours. We will also ask if you are experiencing any health issues such as sore throat, head cold, and nausea.
- ***Tests to evaluate thinking process.*** You will perform pencil and paper tests to assess your process of thinking including learning and memory.
- ***Interview.*** We will schedule a 30-minute phone interview (via a private Zoom conference line) to gather feedback based on your experiences in the study. We would also like to explore any barriers or facilitators to completing the exercise, your intentions to continue the exercise and anticipated barriers or perceived benefits. In addition, we would like to explore any changes to your general health behaviors (e.g., changes to eating patterns and habitual physical activity). Interviews will be audio recorded. The interview will be scheduled within 2 weeks from the end of the 12-week exercise intervention period.
- ***Height.*** We will measure your height using a ruler attached to a wall.
- ***Weight.*** We will measure your body weight using an electronic scale.
- ***Body composition scan and circumferences.*** We will measure your waist, hip, and arm circumferences using a tape measure. We will also measure your body composition including your fat and fat-free weight, as well as your bone density, using a low-radiation scan (dual-energy x-ray absorptiometry; DXA). This test is performed only for research purposes. The test requires that you lie very still on a padded table that gives off low level X-ray radiation. The “arm” of the machine will slowly pass over your body to make the measures. This should take less than 10 minutes. If you are younger than 62 years of age and you have not had a hysterectomy, you will complete a urine pregnancy test prior to the scan.
- ***Body temperature.*** We will take your body temperature on every visit using a contactless thermometer.

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List of Procedures by Visit:

Consent visit in person or in Zoom meeting (1 hr)
Informed consent

Pre-intervention assessments (can be scheduled on same day):

Visit 1 (~3 hrs)
Fast 4 hours (no food/liquid besides water) and abstain from caffeine/alcohol 12 hours
Questionnaire
Height/weight/circumferences and body composition scan
Blood pressure and heart rhythm
Review of medical history
Physical exam
Maximal exercise test
Echocardiography test
Functional assessment tests (6-minute walk, Timed up & go, 4-stage balance, 30-sec chair stand, and handgrip)

Visit 2 (~3 hrs)
Fast 12 hours (no food/liquid besides water) and abstain from caffeine/alcohol 12 hours
Questionnaire
Weight
Blood pressure and heart rhythm
Blood vessel tests
Blood draw
Tests to evaluate thinking process

12-week intervention period: usual care or supervised exercise (3x/week)
Week 4 & 8: wear activity monitor for 7 days
complete activity and diet questionnaire

Post-intervention assessments (can be scheduled on same day):

Visit 3 (~3 hrs)
Fast 12 hours (no food/liquid besides water) and abstain from caffeine/alcohol 12 hours
Questionnaire
Weight
Blood pressure and heart rhythm
Blood vessel tests
Blood draw
Tests to evaluate thinking process

Visit 4 (~3 hrs)
Fast 4 hours (no food/liquid besides water) and abstain from caffeine/alcohol 12 hours
Questionnaire
Height/weight/circumferences and body composition scan
Blood pressure and heart rhythm
Review of medical history
Maximal exercise test
Echocardiography test
Functional assessment tests (6-minute walk, Timed up & go, 4-stage balance, 30-sec chair stand, and handgrip)

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Interview (~30 min)
12-week observation period **Week 4 & 8:** wear activity monitor for 7 days complete activity and diet questionnaire
Post-observation assessments (can be scheduled on same day): **Visit 5 (~3 hrs)** Fast 12 hours (no food/liquid besides water) and abstain from caffeine/alcohol 12 hours Questionnaire Weight Blood pressure and heart rhythm Blood vessel tests Tests to evaluate thinking process **Visit 6 (~3 hrs)** Fast 4 hours (no food/liquid besides water) and abstain from caffeine/alcohol 12 hours Questionnaire Height/weight/circumferences and body composition scan Blood pressure and heart rhythm Review of medical history Maximal exercise test Echocardiography test Functional assessment tests (6-minute walk, Timed up & go, 4-stage balance, 30-sec chair stand, and handgrip)

We will provide these information in a study handout and we will also give you a reminder before each appointment.

If any identifiable information or identifiable blood samples are collected as part of this research, it is possible that your research information or blood samples, with all personally identifiable information removed, could be used for future research studies or distributed to another investigator for future research studies without additional informed consent from you or your legally authorized representative.

If you have any questions now or at any time during this Research Study, please contact the person listed in question 3 of this form.

8. What identifiable health information will be collected about you and how will it be used?

The Research Team will collect

- Information about your exercise sessions (e.g., heart rate, blood pressure)
- Blood vessel test results
- Heart test results
- Blood test results
- Medical history
- Information from medical records about your disease and treatment

UF IRB-01 Approved

- Physical exam record
- Heart rhythm
- Blood pressure
- Results of maximal exercise test
- Results of 6-minute walk test
- Results of Timed up & go test
- Results of 4-stage balance test
- Results of 30-sec chair stand test
- Results of handgrip test
- Results of tests evaluate thinking process
- Physical activity and diet
- Information from questionnaires about your sleep, physical, social, emotional, and functional well-being
- Information from 24-hour questionnaire
- Height, weight, body composition scan, and circumferences
- Pregnancy test if you are younger than 62 years of age
- Body temperature
- Interview results
- Date of birth
- Demographic information
- Social Security Number for research payment purposes

The Research Team may collect this information from other healthcare providers, such as laboratories, which are a part of this research, as well as healthcare providers that are not part of this research (other doctors, hospitals, or clinics). Other professionals at the University of Florida or Shands Hospital who provide study-related care, and the University of Florida Institutional Review Board (IRB), may also collect your health information.

The person listed in question 3 above will use or share your health information as described below to perform this research study.

9. With whom will this health information be shared?

This health information may be shared with:

- The study sponsor (listed in Question 4 of this form);
- United States governmental agencies which are responsible for overseeing research, such as the Food and Drug Administration, the Department of Health and Human Services, and the Office of Human Research Protections;
- Government agencies which are responsible for overseeing public health concerns such as the Centers for Disease Control and federal, state, and local health departments.

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- The IRB that reviewed this Research Study and ensures your rights as a Study Subject are protected

Otherwise, your identifiable health information will not be shared without your permission unless required by law or a court order. Once your health information is shared with those listed above, it is possible that they could share it without your permission because it would no longer be protected by the federal privacy law.

10. How long will you be in this Research Study?

Your will complete the study over ~7-8 months.

This Authorization to use and share your health information expires at the end of the study, unless you revoke it (take it back) sooner.

11. How many people are expected to take part in this Research Study?

We expect 45 women to complete this study. But we may need to screen a higher number of women to find those who are eligible to take part in the study, up to 158 women.

WHAT ARE THE RISKS AND BENEFITS OF THIS STUDY AND WHAT ARE YOUR OPTIONS?

12. What are the possible discomforts and risks from taking part in this Research Study?

We will make every effort to minimize the risks and discomforts in this study. We describe the possible discomforts and risks for each procedure below.

- Blood vessel tests- You may feel mild to moderate “pins and needles or numbing” in your forearm and hand from the forearm pressure cuff that will be inflated for 5 minutes. This feeling goes away as soon as the cuff is deflated.
- Body composition (DXA) scan- The radiation exposure from one test is typically an effective radiation dose equivalent (HE) of about 2.5 uSv. This is similar to the amount of natural background radiation exposure people receive over about one day in the United States. The risk from this amount of radiation exposure is too small to be measured directly and is thought to be low when compared with other everyday risks.
- Blood draw- You may experience mild discomfort or pain and bruising. There is a small risk of bleeding or having a blood clot. There is a very small risk of infection at the needle puncture site. There is also a rare risk of feeling lightheaded, queasy, or faint. These risks will be reduced in this study because experienced personnel will perform the blood draws.
- Exercise intervention- You may feel tired or sore. There is also a risk of falling and a very small risk of injury. The risk of injury is often associated with exercise intensity

UF IRB-01 Approved

and preexisting conditions. We will minimize these risks by screening out people who are at high risk to experience problems. There is a small risk of developing an abnormal heart rhythm and minimal risk of having a heart problem (e.g., heart attack) or stroke that could lead to death. The possibility of these occurring in the current study is low. This is because everyone will undergo health screening before beginning the exercise training. If you have diabetes, you may experience low blood sugar levels during or following exercise and this risk may be elevated if you use certain medications. Our study endocrinologist will provide guidance to help you safely manage your blood sugar. We strongly encourage you to stay well hydrated and to monitor your blood sugar levels frequently because blood sugar levels may continue to fall for several hours after exercise. Women with known heart disease will be excluded. Women with any conditions that would elevate their risk to exercise training will also be excluded. We will also minimize risks (1) by gradually progressing the duration and intensity of exercise based on your fitness and (2) by supervising all exercise sessions live using video conferencing while you exercise at home. Prior to randomization, the research team will obtain the phone number needed to activate the Emergency Medical Services (EMS) at your location (Alachua County 911 or the 10-digit phone number for EMS, if outside of Alachua County). We will also ask you to provide a phone number for your emergency contact person and directions to your home to facilitate EMS locating you in case you experience a medical emergency. If you experience a medical emergency, a research team member will activate EMS while they continue to monitor you by video conferencing until EMS personnel arrive.

Chemotherapy may lead to feeling tired, weak, and short of breath. It may also lead to an abnormal heart rhythm, low blood cell count, and swelling in the arms or legs. Some women feel pain or tingling in hands and feet or may have balance problems. All these issues may present challenges during exercise. But exercise is known to be safe following breast cancer therapy. Our study follows published exercise and safety plans to reduce risks.

- Maximal graded exercise test- You may feel discomfort and dry mouth from breathing through a mouthpiece during the test. You may also feel tired and sore. There is a small risk of injury. There is a small risk of developing an abnormal heart rhythm and minimal risk of having a heart problem (e.g., heart attack) or stroke that could lead to death. Based on previous studies, the risk of having a heart problem during the test is 6 per 10,000 tests. But this depends on whether the study population has heart disease. We will minimize risks by excluding women with known heart disease. We will also screen out those who have increased risk of experiencing a problem during maximal exercise. We will provide on-site clinical supervision for the maximal exercise tests. We will also have available emergency equipment and medications and well-planned emergency plans.

- *Psychological risks-* You may feel tired, stressed, or embarrassed from answering some of the questions included in the questionnaires. To minimize these risks, we will provide plenty of time to complete them and an option to complete most of them at home. In addition, we will ask questions in a sensitive and respectful manner. If

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you provide information that you intend to harm yourself, you will be referred to Dr. Daily for further evaluation and management.

- *Interview-* Your interview will be audio recorded. The recordings will be saved on a computer in our university office. Only members of our Research Team who have a password will be able to access these files. We will use the recordings to take notes of your responses to the questions. We will not include your name on the typed files. If you share any personal information during the interview, we will remove it from the notes. All recordings will be deleted no later than 6 months after they are recorded. Things you say during the interview may be used in future publications but will not be linked with your name or identifying information.

This Research Study may also include risks that are unknown at this time.

Please note, participating in more than one research study or project may further increase the risks to you. If you are already enrolled in a research study, please inform one of the Research Team members listed in question 3 of this form or the person reviewing this consent with you before enrolling in this or any other research study or project.

During the study, the Research Team will notify you of new information that may become available and might affect your decision to remain in the study.

The University of Florida is required by law to protect your health information. Your health information will be stored in locked filing cabinets or on computer servers with secure passwords, or encrypted electronic storage devices, as required by University policy. However, there is a slight risk that information about you could be released inappropriately or accidentally. Depending on the type of information, a release could upset or embarrass you, or possibly affect your ability to get insurance or a job.

If you wish to discuss the information above or any discomforts you may experience, please ask questions now or call one of the Research Team members listed in question 3 in this form.

To help us protect your privacy, we have obtained a Certificate of Confidentiality from the National Institutes of Health. With this Certificate, the researchers cannot be forced to disclose information that may identify you, even by a court subpoena, in any federal, state, or local civil, criminal, administrative, legislative, or other proceedings. The researchers will use the Certificate to resist any demands for information that would identify you, except as explained below.

The Certificate cannot be used to resist a demand for information from personnel of the United States Government that is used for auditing or evaluation of federally funded projects or for information that must be disclosed in order to meet the requirements of the federal Food and Drug Administration (FDA).

You have been informed that a Certificate of Confidentiality does not prevent you from voluntarily releasing information about yourself or your involvement in this research. If an insurer, employer, or other person obtains your written consent to receive research information, then the researchers may not use the Certificate to withhold that

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information. That is, if you give written consent for the release of information, we cannot withhold that information and we cannot hold responsibility for how that person may use your information.

The Certificate of Confidentiality does not prevent the researchers from disclosing voluntarily, without your consent, information that would identify you as a participant in the research project under the following circumstances. If we learn about child abuse, elder abuse, or intent to harm yourself or others, we will report that information to appropriate authorities.

13a. What are the potential benefits to you for taking part in this Research Study?

You may or may not receive direct benefit from participating in this study. It is possible that exercising may improve your physical and mental health and quality of life. Some studies show that exercise may help reduce recurrence of breast cancer.

13b. How could others possibly benefit from this Research Study?

The findings of this study will help expand medical knowledge about the effects of HIIT compared to MICT exercise on heart and blood vessel health in women who have completed chemotherapy for breast cancer. This information will help optimize exercise prescription which may benefit other women who have undergone breast cancer chemotherapy.

13c. How could the Research Team members benefit from this Research Study?

In general, presenting research results helps the career of a researcher. Therefore, the individual listed in question 3 of this form and the Research Team may benefit if the results of this Research Study are presented at scientific meetings or in scientific journals.

13d. Will you be allowed to see the research information collected about you for this Research Study?

At the end of your study participation, we will provide you with information about your heart health, fitness, body fat content, bone density, blood pressure, resting and maximal heart rate, and physical activity and diet analysis. If you wish to receive additional research information collected about you for this Research Study, please send a written request to: Dr. Demetra Christou, 118 FLG, 1864 Stadium Road, Gainesville, FL 32611-8205. We will be able to provide this information after the entire study is complete.

14. What other choices do you have if you do not want to be in this study?

If you do not want to take part in this study, tell the person reviewing this consent and do not sign this form.

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You may also refuse to authorize the use of your health information, but if you refuse, you may not be allowed to be in this research study or receive any research-related treatment that is only available in this research study. However, your decision not to sign this Authorization will not affect any other treatment you may be eligible to receive.

15a. Can you withdraw from this study?

You may withdraw your consent and stop participating in this Research Study at any time. If you do withdraw your consent, there will be no penalty to you, and you will not lose any benefits to which you are otherwise entitled.

If you decide to withdraw your consent to participate in this Research Study for any reason, please contact the Research Team listed in question 3 of this form. They will tell you how to safely stop your participation.

You can also change your mind and take back this Authorization at any time by sending a written notice to the Research Team listed in question 3 of this form to let them know your decision. If you take back this Authorization, the Research Team may only use and disclose your health information already collected for this research study. No additional health information about you will be collected or disclosed to the Research Team. However, if you take back this Authorization, you may not be able to continue in this study. Please discuss this with a member of the Research Team listed in question #3.

15b. Can the Principal Investigator withdraw you from this Research Study?

You may be withdrawn from this Research Study without your consent for the following reasons:

- If you do not follow the instructions given to you by the Research Team
- If you do not keep your scheduled appointments to complete all procedures
- If you do not complete your scheduled supervised exercise sessions

WHAT ARE THE FINANCIAL ISSUES IF YOU PARTICIPATE?

16. If you choose to take part in this Research Study, will it cost you anything?

No, there will be no extra cost to you for being in this Research Study.

17. Will you be paid for taking part in this Research Study?

You will receive a total of ~$300 in the form of a prepaid debit card when you complete all study procedures. If you do not complete the study, financial compensation will be prorated as described below:

Visit 1: $25
Visit 2: $25
Week 4 of intervention period assessments: $10

UF IRB-01 Approved

Week 8 of intervention period assessments: $10
Visit 3: $40
Visit 4: $40
Interview following completion of exercise intervention: $20
Week 4 of observation period assessments: $15
Week 8 of observation period assessments: $15
Visit 5: $50
Visit 6: $50

In addition, you will be reimbursed for transportation costs (e.g., reimbursement for gas) if you live more than 25 miles away from Gainesville. If you live more than 50 miles away from Gainesville, 1-night hotel accommodation will also be provided to facilitate scheduling the study procedures at baseline and after the 12-week exercise intervention and observation periods.

It may take a few weeks to receive payment. Please contact the Research Team if you have any questions regarding payment.

If you are paid more than $199 for taking part in this study, your name and social security number will be reported to the appropriate University employees for purposes of making and recording the payment as required by law. You are responsible for paying income taxes on any payments provided by the study. Payments to **nonresident aliens** must be processed through the University of Florida Payroll and Tax Services department. If the payments total $600 or more in a calendar year, the University must report the amount you received to the Internal Revenue Service (IRS). The IRS is not provided with the study name or its purpose. If you have questions about the collection and use of your Social Security Number, please visit: http://privacy.ufl.edu/SSNPrivacy.html.

Your payment for participation in this research study is handled through the University of Florida's Research Participant Payments (RPP) Program. Your information which will include your name, address, date of birth, and SSN (depending on amount of money you are paid) is protected. Access to the (RPP) Program site is limited to certain staff with the assigned security role. You will be randomly assigned a specific identification (ID) number to protect your identity.

If you have any problems regarding your payment contact the study coordinator.

18. What if you are injured while in this Research Study?

If you are injured as a direct result of your participation in this study, only the professional services that you receive from any University of Florida Health Science Center healthcare provider will be provided without charge. These healthcare providers include physicians, physician assistants, nurse practitioners, dentists or psychologists. Any other expenses, including Shands hospital expenses, will be billed to you or your insurance provider.

You will be responsible for any deductible, co-insurance, or co-payments. Some insurance companies may not cover costs associated with research studies or

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research-related injuries. Please contact your insurance company for additional information.

The Principal Investigator will determine whether your injury is related to your participation in this study.

No additional compensation is routinely offered. The Principal Investigator and others involved in this study may be University of Florida employees. As employees of the University, they are protected under state law, which limits financial recovery for negligence.

Please contact the Principal Investigator listed in question 3 of this form if you experience an injury or have questions about any discomforts that you experience while participating in this study.

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SIGNATURES

As an investigator or the investigator's representative, I have explained to the participant the purpose, the procedures, the possible benefits, and the risks of this Research Study; the alternative to being in the study; and how the participant's protected health information will be collected, used, and shared with others:

Signature of Person Obtaining Consent and Authorization	Date

You have been informed about this study's purpose, procedures, possible benefits, and risks; the alternatives to being in the study; and how your protected health information will be collected, used and shared with others. You have received a copy of this Form. You have been given the opportunity to ask questions before you sign, and you have been told that you can ask questions at any time.

You voluntarily agree to participate in this study. You hereby authorize the collection, use and sharing of your protected health information as described above. By signing this form, you are not waiving any of your legal rights.

Signature of Person Consenting and Authorizing	Date

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Consent to be Photographed and/or Audio Recorded

With your permission, you will have the following done during this research (check all that apply):

☐ photographed ☐ audio recorded

We will ask your permission to photograph the position of the ultrasound device on your arm. We will keep the photograph(s) on a password-protected computer. We will not show the picture to anyone outside our research team and will destroy it when you complete the study. You have the right to refuse to have your photograph taken.

Your interview will be audio recorded. The audio recordings will be saved on a computer in our University office. Only members of our Research Team who have a password will be able to access these files. We will use the recordings to take notes of your responses to the questions. We will not include your name on the typed files. If you share any personal information during the interview, we will remove it from the notes. All recordings will be deleted no later than 6 months after they are recorded. Things you say during the interview may be used in future publications but will not be linked with your name or identifying information.

Your name or personal information will not be identified on the photograph(s) or audio recordings, and confidentiality will be strictly maintained. However, when these photograph(s) or audio recordings are viewed or heard, others may be able to identify you. The Principal Investigator (PI) of this study, Demetra Christou, Ph.D., will store the photograph(s) and/or audio recordings in a folder on a password-protected computer.

Please indicate if Dr. Christou has your permission to store photograph(s) and/or audio recordings as described in the Informed Consent Form, and sign and date below. As described in the Informed Consent Form; the following will be **destroyed once the study is closed** (check all that apply):

____ photograph(s) _____ audio recording(s)

_____ _____

Signature Date