Together, we can explore options that may help improve Long COVID symptoms

RECOVER
ENERGIZE

Personalized Cardiopulmonary Rehabilitation

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Welcome to RECOVER-ENERGIZE!

The information in this brochure describes what participants enrolled in **RECOVER-ENERGIZE - Personalized Cardiopulmonary Rehabilitation** can expect during the study.

When final study results become available, a summary will be posted on the RECOVER clinical trials website (trials.recovercovid.org). No information that could identify participants will be shared publicly.

About This Study

Personalized Cardiopulmonary Rehabilitation is studying possible treatments for exercise intolerance. This research study is looking at how Personalized Cardiopulmonary Rehabilitation can help participants with exercise intolerance improve their quality of life and ability to exercise. Participants will be monitored to make sure they do not develop post-exertional malaise (PEM) during their participation in the study.

- '**Exercise intolerance**' is the need to stop physical activity because of symptoms like shortness of breath and fatigue.
- '**PEM**' is the worsening of symptoms after minimal physical, mental, or emotional activity.

This study includes adults who experience exercise intolerance that started or got worse after they had COVID and has lasted for at least 3 months. Exercise intolerance can affect someone's daily activities and worsen quality of life. As you try to exercise or physcially push yourself, you may have to stop your efforts because of symptoms like:

Shortness of Breath

Muscle Weakness

Extreme Tiredness

You will be assigned by chance to either the Personalized Cardiopulmonary Rehabilitation Group or the Control Group. You will receive more information about what to expect once you have been assigned to your group at the Baseline Visit.

Why Your Participation Matters

More than 500 million people around the world have had COVID, and it's possible that millions of them could have long-term symptoms. We need more information to support the safe use of potential treatments for people with Long COVID.

With your help, we can better understand how and why Long COVID affects people in different ways and explore possible treatments. This research may help you, your loved ones, and other people with Long COVID.

What to Expect During the Study

Length of Study Intervention	**Total Length of Study**	**Number of Study Clinic Visits**	**Follow-up**
12 weeks	About 6 months, which includes a follow up call 12 weeks after the study intervention ends	At least 3 in-person visits and 1 remote visit	Answer follow-up questions about your health and well-being

What will I do at each visit?
After the screening visit to see if you are eligible to participate, you will be scheduled for several in-person visits at the study clinic. Each visit may last a different amount of time, depending on the study activities you will be asked to complete.

Time estimates for each visit are listed below. Please let the study team know if you have any concerns about the length of the visits and if there is anything that could make your visits more comfortable.

How should I prepare for these visits?
- Wear comfortable clothing
- Bring water and a snack
- Ask the study team for support if you have questions about getting to the clinic safely or paying for parking

For at least 7 days before the Baseline Clinic Visit, please wear the activity tracker (Fitbit) throughout the entire day to record your rest, sleep, and activity. This includes wearing your activity tracker/Fitbit when you are showering, napping, or completing any other daily tasks.

What will I do at each visit?

You will have at least 3 in-person visits at the study clinic.
At each of these visits, you will complete lab tests and 2 walking tests. You will also be asked questions about your physical activity, health, and well-being.

- **Baseline Visit (about 4 to 6 hours):** During this visit, you will receive your study group assignment, give more information about your physical health, and complete walking tests.

  Parts of this visit may be done remotely or may require more than 1 visit to the study clinic.
  – **Select sites only:** Visit the study clinic again to complete an additional exercise test that measures your exercise abilities.

- **Week 6 – Midpoint Visit (about 3 to 4 hours):** During this visit, you will answer follow-up questions about your physical health and complete walking tests.

- **Week 12 – End of Intervention Visit (about 3 to 4 hours):** During this visit, you will answer follow-up questions about your physical health and complete walking tests.
  – **Select sites only:** Visit the clinic again to complete an additional exercise test that measures your exercise abilities.

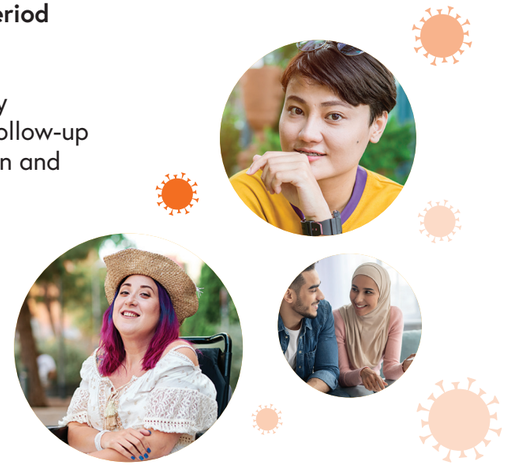
You will also have 1 remote visit by phone:

- **Remote 6-month Follow-up Visit (about 2 hours):** The phone call will take about 20 minutes. During that time, you will answer questions about your physical activity, health, and well-being. After the phone call, you will complete additional surveys, which can take up to 1 hour and 45 minutes.

Why is the study 6 months long if the intervention period is only 12 weeks?

The information you provide throughout the study is very important to RECOVER research. The Remote 6-month Follow-up Visit will help researchers collect more safety information and long-term data.

The experiences of participants in the Control Group are also very important—they give researchers points of comparison to better understand how Personalized Cardiopulmonary Rehabilitation affects participants' health, well-being, and Long COVID symptoms.



What to Expect During the Study

The purpose of the Baseline Clinic Visit is to collect more information about your physical health and to better understand your Long COVID symptoms.

Baseline Clinic Visit (about 4 to 6 hours)		
Information (1 hour)	**Assessments (4-5 hours)**	**Receive (5 minutes)**
• Review current medicines • Review study requirements • A few days after this visit, complete a survey to check for PEM symptoms	• Surveys • Blood sample • Nasal swab sample • 2 walking tests • Cardiopulmonary Exercise Testing (only at specific sites) • Well-being check	• Study group assignment (Personalized Cardiopulmonary Rehabilitation Group or Control Group) • At-home stool (poop) sample kit

When will the study team contact me?

- **All participants:** You will receive a phone call or online survey to check for PEM symptoms 2 to 3 days after in-person visits with physical activities. The study team will also check on your well-being during each study visit to make sure you can safely continue to participate in the study.
- **Participants in the Personalized Cardiopulmonary Rehabilitation Group:** The study team will contact you to follow-up on new or worsening symptoms and your overall health and well-being as needed.
- **Participants in the Control Group:** You will also receive weekly phone calls from the study team for support and information on PEM.

How will information about my rest and activity be recorded throughout the study?

- You will be asked to wear the activity tracker/Fitbit on your wrist, similar to a watch. The wearable Fitbit device provided by the study will automatically record information about your rest and activity, like the number of steps you take and minutes you spend at different activity levels.
- You are encouraged to wear the activity tracker/Fitbit during the entire study.
- You will need to download an app to your mobile device and make sure your Fitbit activity tracker is connected to this app. The app will then send the data from your Fitbit to the study team.

You may keep the activity tracker/Fitbit for personal health monitoring after your participation in the study ends.

About the Study Intervention

You will be assigned by chance to one of these groups:

Study Group	Type	Activities
Active Study Intervention Group	Personalized Cardiopulmonary Rehabilitation	12 weeks of 2 to 3 personalized exercise and education sessions per week
Control Group	Exercise Education	2 general education sessions and 12 weeks of weekly phone calls from the study team

You will receive more detailed information about what to expect once you have been assigned to a study group.

What is Personalized Cardiopulmonary Rehabilitation?
The combination of heart and lung symptoms that occur with Long COVID contribute to exercise difficulties. Researchers are studying Personalized Cardiopulmonary Rehabilitation, a program that combines exercise training with education to help those with exercise intolerance improve their quality of life and ability to exercise.

What is Exercise Education?
Exercise education includes information sessions that cover topics like nutrition, weight control, exercise, overall well-being, PEM, and how to manage stress, anxiety, and depression

What are the risks of participating in RECOVER-ENERGIZE?
A specific risk for people with Long COVID is that exercise may lead to PEM or may cause PEM symptoms to get worse. Other possible side effects include chest pain, dizziness, and fainting or passing out. Please refer to the Informed Consent Form for a complete list of study risks and possible side effects.

It is important to notify the study team of any new or worsening symptoms you may experience or if any current health problems get worse while you are taking part in this study.

About the RECOVER Research Biorepository

The RECOVER Research Biorepository is a place to collect and store biospecimens for future research related to the RECOVER Initiative. Biospecimens may include samples of blood and stool (poop). These samples will be stored securely until they are used up.

Participating in this study means you agree to share your data and biospecimens with the RECOVER Research Biorepository. **If you choose to participate in this study, your data and samples may also be shared with other researchers for future research, such as developing new tests and treatments for Long COVID or other health problems**. You can change your mind later, but researchers might still use your data and biospecimens if they have already been shared. Researchers will not be able to link your samples back to you because your personal information has already been removed.

How could a biorepository help with Long COVID research?

Sharing your data and biospecimens with the RECOVER Research Biorepository may:

- Increase the possibility of developing new possible treatments related to Long COVID
- Improve our understanding of how possible treatments may work to reduce Long COVID symptoms
- Enhance our understanding of how and why Long COVID affects people differently
- Help researchers make important discoveries and uncover possible treatments that could help you, your loved ones, and others in the future

How will my privacy be protected?

Your data and samples will be de-identified, which means they will not include any information that can personally identify you, and researchers cannot easily link your identifying information to the data and samples.

What will the samples be used for?

RECOVER research
The samples will be used for research on COVID and the long-term effects of the virus that causes COVID-19. They may also be used for research on other health problems.

Genetic testing (optional)
The use of your samples for genetic testing is optional, and you can let the study team know your decision in the Informed Consent Form. If you give your permission, researchers may study your genes to look for links to Long COVID. Genetic tests can determine if a person or groups of people are more likely to have certain genetic diseases or conditions. Choosing to say no to genetic testing will not limit your ability to participate in other parts of this study, including using the study interventions.

Will I get any results back from future research use of my data and biospecimens?

No. You should not expect to receive results from any future research that may use your data and biospecimens. You will not be notified if or when your samples are used for future research.

Blood Samples

How will I provide blood samples?
The study team will take about 5 tablespoons (80 milliliters) of blood from your arm during the Baseline Visit and End of Intervention Visit.

Why are blood samples important to this research?
Biospecimens from a blood sample can provide valuable information to researchers. This information is called "biomarkers." For example, a person's blood sugar level is one of the biomarkers for diabetes. Biomarkers can be measured and may provide important information about Long COVID. They may also predict how a patient will respond to a treatment.

Stool Samples

How will I provide stool samples?
After the Baseline Visit and End of Intervention Visit, you will be asked to provide a stool (poop) sample using an at-home kit. The at-home kit will include a confidential pre-paid box for you to mail your sample directly to the RECOVER Research Biorepository where it will be stored securely.

Why are stool samples important to this research?
People who have had COVID can have changes in their microbiome (fungi, bacteria, and viruses that live in the intestines) after their infection, and their stool provides a good example of the microbiome in their gut. Collecting stool samples helps researchers understand changes in the microbiome caused by a COVID-19 infection.

Notes and Questions for My Study Team

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If You Become Ill or Injured
Get the medical care that you need right away. Visit your doctor, go to urgent care, or go to the emergency room if needed.

Contact Your Study Team if You
- Receive emergency medical care
- Experience new or worsening symptoms
- Start taking any new medicines (including over-the-counter) or have a dose change in any of your current medicines
- Change your phone number, email, or home address
- Have questions about the study or study interventions

Site Contact Information

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For more information and study updates, visit trials.recovercovid.org/energize

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