



Evaluating and Supporting Patients with Long COVID in Returning to Work

Clinician Outreach and Communication Activity (COCA) Call
Thursday, June 15, 2023

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- Content will not include any discussion of the unlabeled use of a product or a product under investigational use.
- CDC did not accept financial or in-kind support from ineligible companies for this continuing education activity.

Objectives

At the conclusion of today's session, the participant will be able to accomplish the following:

- Explain the importance of work participation in long-term recovery.
- Describe how to assess current functional abilities and establish functional goals for patients with Long COVID.
- List resources to help employers make accommodations for patients returning to work.
- Outline how to develop a usable return-to-work plan for patients with Long COVID who have been out of work.

To Ask a Question

- Using the Zoom Webinar System
 - Click on the “Q&A” button
 - Type your question in the “Q&A” box
 - Submit your question
- If you are a patient, please refer your question to your healthcare provider.
- If you are a member of the media, please direct your questions to CDC Media Relations at 404-639-3286 or email media@cdc.gov

Today's Presenters

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Medical Director, Mayo Clinic COVID Activity Rehabilitation Program
Mayo Clinic



Introduction to Long COVID and Occupational Health

For Primary Care Providers

John Howard, MD
Director

National Institute for Occupational Safety and Health

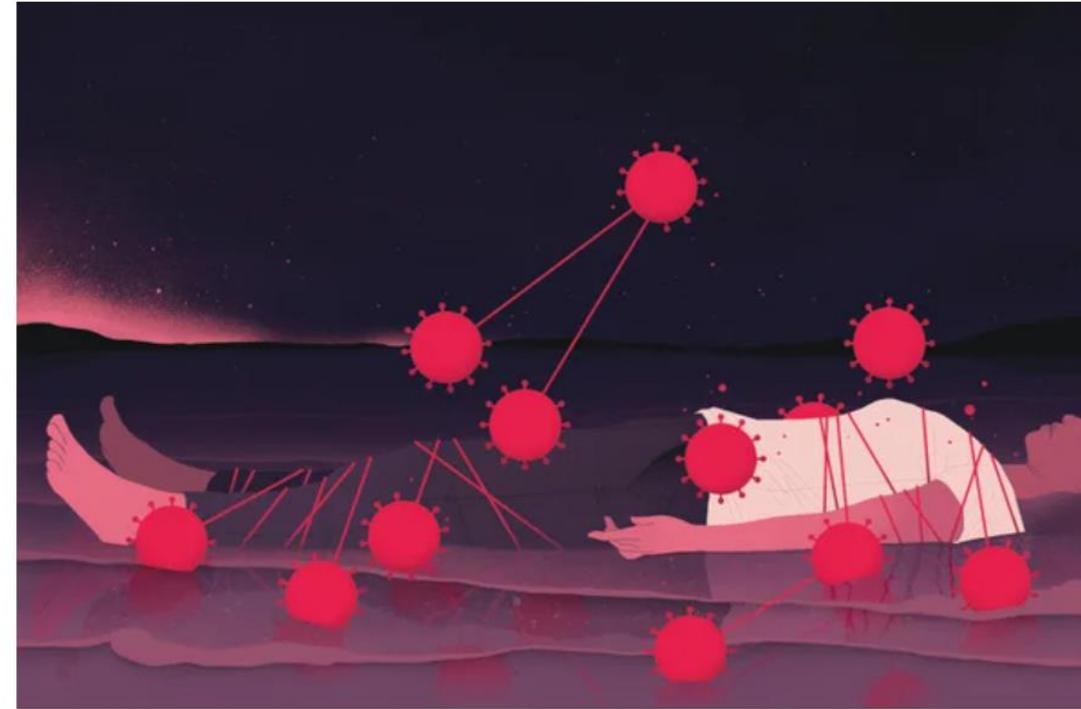


The views expressed in this presentation are those of the presenters and do not necessarily represent the official position of the Centers for Disease Control and Prevention or the employers of the presenters.

Long COVID: Definition

<https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects/index.html>

- Long COVID is broadly defined as signs, symptoms, and conditions that continue or develop after an initial COVID-19 infection.
- People call Long COVID by many names, such as:
 - Post-COVID Conditions
 - Long-haul COVID
 - Post-acute COVID-19
 - Chronic COVID
 - Post-acute sequelae of SARS CoV-2 infection (PASC)



Credit: Stephanie Shafer

Long COVID: Symptoms

<https://doi.org/10.1001/jama.2023.8823>

- Patients and researchers have identified more than 200 symptoms associated with Long COVID including:
 - Post-exertional malaise
 - Fatigue
 - Difficulty thinking or concentrating (sometimes called “brain fog”)
 - Dizziness on standing
 - Gastrointestinal symptoms
 - Shortness of breath or difficulty breathing
 - Heart palpitations
 - Changes in sexual desire or capacity
 - Loss of or change in smell or taste
 - Thirst
 - Chronic cough
 - Chest pain
 - Abnormal movements
- This list is not exhaustive.

Long COVID: Duration, Risk and Prevalence

<https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects/index.html>

- Long COVID can last weeks, months, or years.
- Long COVID occurs more often in people who are unvaccinated or who have had severe COVID-19 illness, but even people with milder COVID-19 infections in the Omicron era can experience Long COVID.
- Estimates of the number of people who suffer from Long COVID vary. “As of April, the federal government’s **Household Pulse** survey estimates that about 6% of those infected with COVID-19 continue to experience and suffer from the many symptoms termed together as Long COVID.”
 - <https://www.nih.gov/news-events/news-releases/large-study-provides-scientists-deeper-insight-into-long-covid-symptoms>

Long COVID Challenges

- **Medical/Scientific Challenges**

- What is pathophysiology?
- Can we develop a definition that is more than a collection of symptoms?
- Can we develop a test or biomarker to aid in diagnosis?
- Do we have an effective treatment?

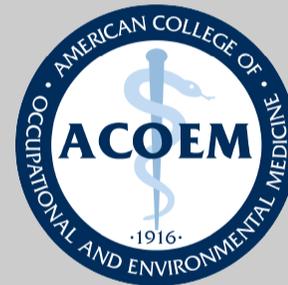
- **Labor Market Challenges**

- About 18% of people with Long COVID had not returned to work for more than a year, according to a report by the New York State Insurance Fund.
 - https://ww3.nysif.com/en/FooterPages/Column1/AboutNYSIF/NYSIF_News/2023/20230124LongCovid
- The finding adds to other research suggesting Long COVID is contributing to a labor shortage and is hurting the U.S. economy.

- **Employment Setting Challenges**

- Return to work
- Reasonable Accommodation
- Disability

Helping Patients with Long COVID Get Back to Work



AMERICAN COLLEGE OF
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Work Disability Prevention and Management

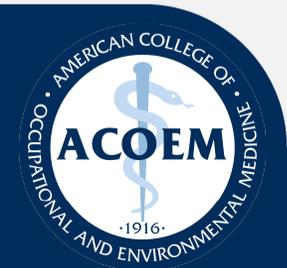
Marianne Cloeren, MD, MPH, FACOEM, FACP



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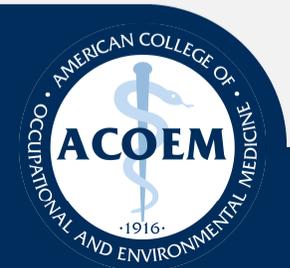
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3. List resources to help employers make accommodations for patients returning to work.
4. Outline how to develop a usable return-to-work plan for patients with Long COVID who have been out of work.



OEM Mission

Occupational and environmental medicine is the medical specialty devoted to prevention and management of occupational and environmental injury, illness, and disability; and promotion of health and productivity of workers, their families, and communities.

- [ACOEM](#)



Occupational Physicians

Address:

- The impact of work hazards on health (e.g., work causation)
- The impact of health conditions on work (e.g., need for accommodations)

Scope of work:

- Diagnosis
- Prevention
- Mitigation
- Management
- Control
- Research



ACOEM Guideline

The Personal Physician's Role in Helping Patients with Medical Conditions Stay at Work or Return to Work

The personal physician has a role in assisting patients minimize life and work disruption resulting from new injury or illness, changes in chronic health conditions and existing disabilities, or the advance of age. In order to discharge these responsibilities appropriately, it is important that physicians appreciate the importance of work to human life and well-being. This means helping patients maintain their daily routine as much as possible, and for working patients, helping them stay at work or return to work.



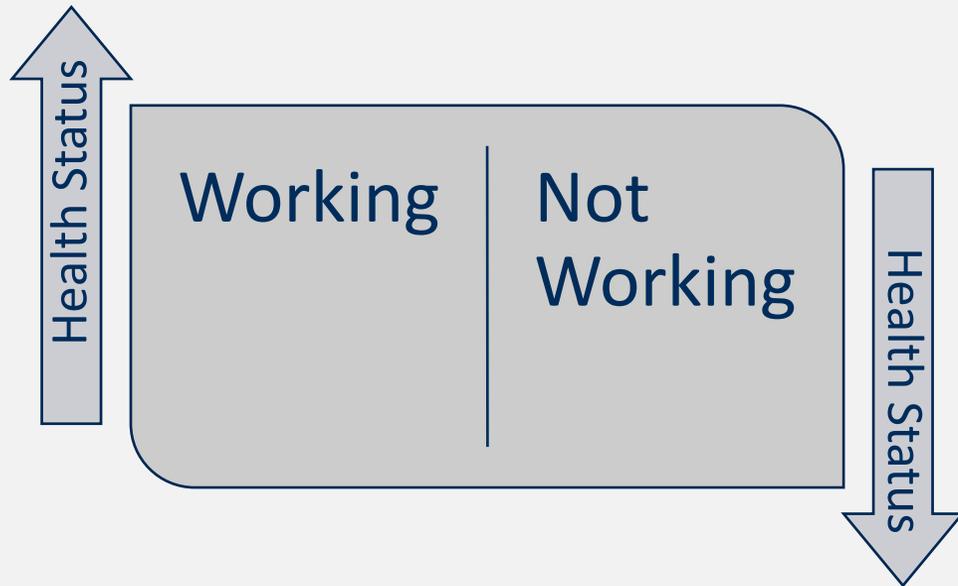
Is Work Good for Your Health and Well-Being?

UK systematic review of > 400 studies

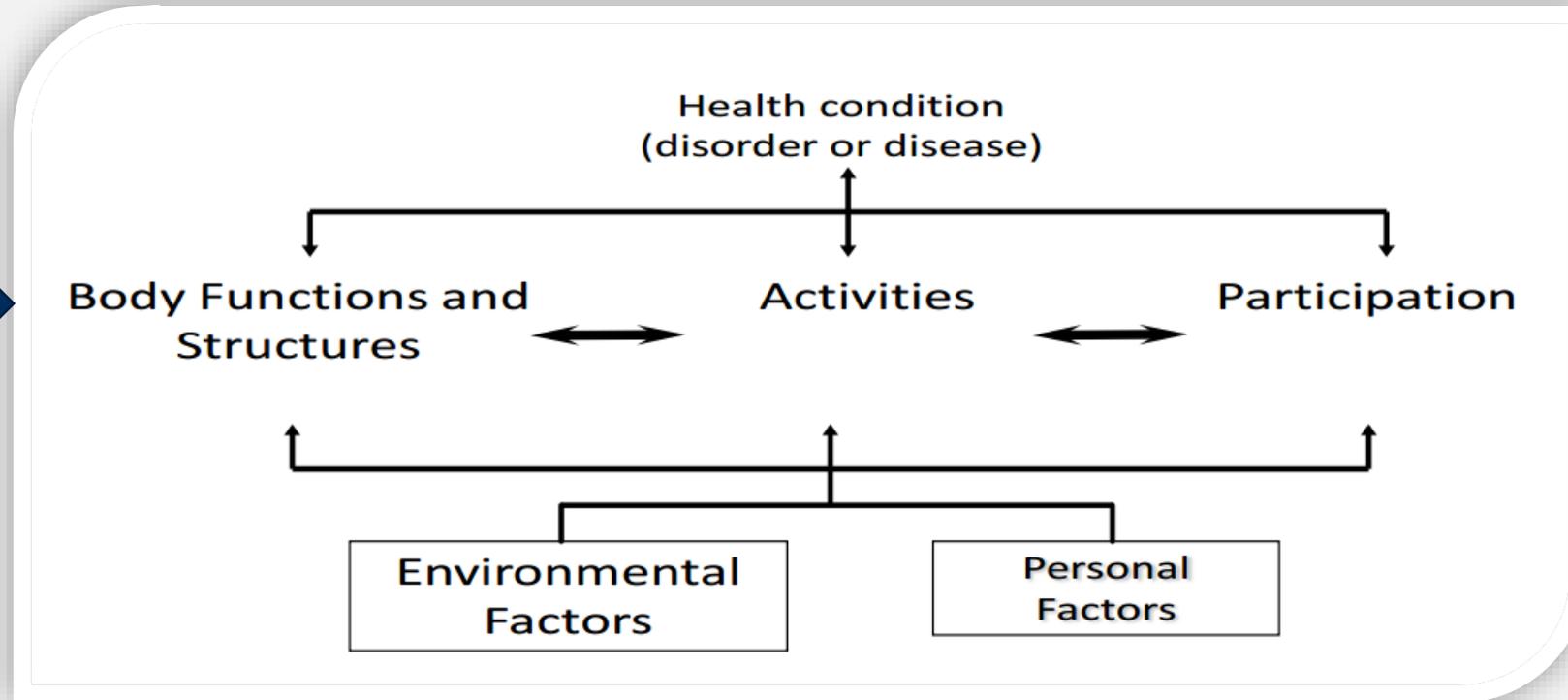
- Predated COVID-19
- Included many different medical conditions

Conclusions:

- Working -> better health
- Not working -> poorer health
- RTW -> reverses adverse effects of not working
- True for healthy or ill
- Nature, quality and safety of work are important
- Benefits of work outweigh the risks



International Classification of Function Model



Impairment →

← Work Disability



When Does Impairment Become Disability?

Condition

Significant physiologic, psychological, anatomical loss

Function

Impacting important life functions

Society

Not accommodated by society (modified work, vocational services, public access)

Individual

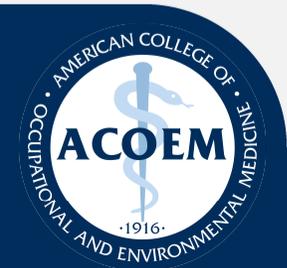
Need for personal adjustments



Self-Knowledge Check

Which of the following contribute to work disability related to a medical condition?

- A. Severity of the medical condition
- B. Environmental factors such as accessibility or accommodations
- C. Individual factors related to adjustment
- D. A and B only
- E. All of the above



Answer

Answer: E, all of the above.

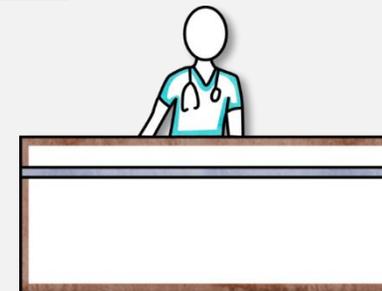
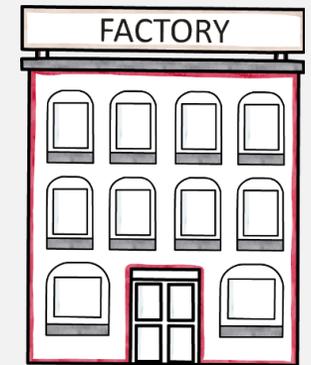
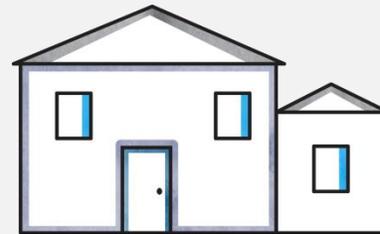
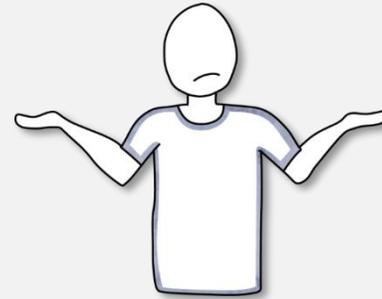
Rationale: While the severity of a medical condition can contribute to work disability, there are many other factors that can interact to interfere with return to work. These include environmental factors such as accessibility or accommodations as well as individual factors including adjustment style, disability beliefs, and emotional reactions like fear.



Domains of Adjustment

Patients faced with health conditions that do not quickly resolve need to make adjustments in many different domains:

- Sense of self/identity
- Home life and responsibilities
- Medical care needs
- Work



Ask Your Patients about Function

Functional impact should be addressed at every visit

Sample questions:

- How has this impacted your function?
- What could you do before that you can't do now?
- How is this getting in the way of what you need to do at work?
- How about at home?



Track Patient-Reported Function over Time

- Many different Patient-Reported Outcome Measurement tools (PROMs)
- Find and use PROMs appropriate for your practice and patients

Functional Assessment

 <i>Stay in bed</i>	 <i>Get up but relax at home</i>	 <i>Check e-mail; work at home computer</i>	 <i>Do hobbies</i>
<input type="checkbox"/> Most days <input type="checkbox"/> Some days <input type="checkbox"/> Rarely <input type="checkbox"/> Never	<input type="checkbox"/> Most days <input type="checkbox"/> Some days <input type="checkbox"/> Rarely <input type="checkbox"/> Never	<input type="checkbox"/> Most days <input type="checkbox"/> Some days <input type="checkbox"/> Rarely <input type="checkbox"/> Never	<input type="checkbox"/> Most days <input type="checkbox"/> Some days <input type="checkbox"/> Rarely <input type="checkbox"/> Never
 <i>Do household chores</i>	 <i>Exercise</i>	 <i>Socialize</i>	 <i>Go to work</i>
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Ask about Current Activities

Daily activities

Household chores

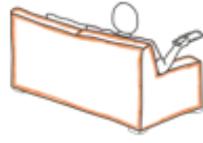
Exercise

Socializing

Hobbies

Work

Functional Assessment

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Ask about Work Requirements

What is your job?

Tell me about a typical work day for you

What are your job duties? What tasks does that entail?

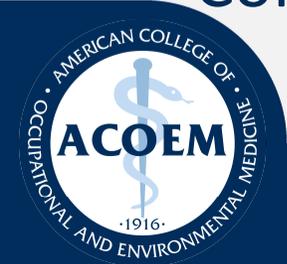
Where do you do your work? How do you get there?

What sort of hours? Shifts?

Exposures? Protective equipment?

Resource: <https://www.onetonline.org/>

Consider requesting a job description from the employer



Observe Your Patient's Function

Gait, posture, and balance

Ability to rise from chair or climb to/from table, with or without assistance of arms

Simulation of work activities

Review observations of others – e.g., physical therapy

Ability to stay focused on the conversation, think clearly and recall



Evaluating Limitations

What limitations is the patient experiencing?

How do these limitations affect the patient and the patient's job performance?

What specific job tasks are problematic as a result of these limitations?

What accommodations could reduce or eliminate these problems?



Steps in Supporting Return-to-Work

Establish expectations and goal as early as possible

Address work at every visit

Recognize that:

- Patients may fear returning to work
- Employers may resist bringing back employees who are not at 100%
- You are a trusted authority, and your recommendations carry weight
- Getting back to work in some capacity can help patients

Plan close follow-up to address problems and progress activities slowly

Anticipate potential setbacks and plan for them



Communicating with the Patient about Work

Start with what they can do now as initial starting point for work release

If employer is not able to bring them back, this does not mean the patient is totally disabled – recommend activities they could do at home to progress function

Set small stretch goals in activities

Consider using an activity log

Return visits – closely spaced to progress patient activities



Legal Considerations – Americans with Disabilities Act

ADA defines a person with a disability as someone who

1. Has a physical or mental impairment that substantially limits one or more "major life activities,"
2. Has a record of such an impairment, or
3. Is regarded as having such an impairment.

If employee meets definition, employer must make accommodations
IF:

1. Accommodations would permit the person to perform essential job functions AND
2. Employer determines they are reasonable to make



Recommended Accommodations

Recommendations for accountant with post-COVID-19 brain fog

- Frequent breaks
- Quiet space
- Memory aids and checklists

If your patient is **not** able to perform their essential job duties with or without accommodations – BUT is not totally disabled

- ADA does not apply
- BUT – many employers will still try to return such employees to work if:
 - Temporary
 - Clearly communicated needs and restrictions
 - Closely followed by you to facilitate progression



Some Help from Our Friends at JAN

Job Accommodation Network
(askjan.org)

Long COVID accommodations help

https://askjan.org/disabilities/Long-COVID.cfm?csSearch=4456665_1

Making recommendations in
writing:

<https://askjan.org/articles/Medical-Provider-Support-for-Accommodation-Request.cfm>

Find accommodation ideas by
limitation:

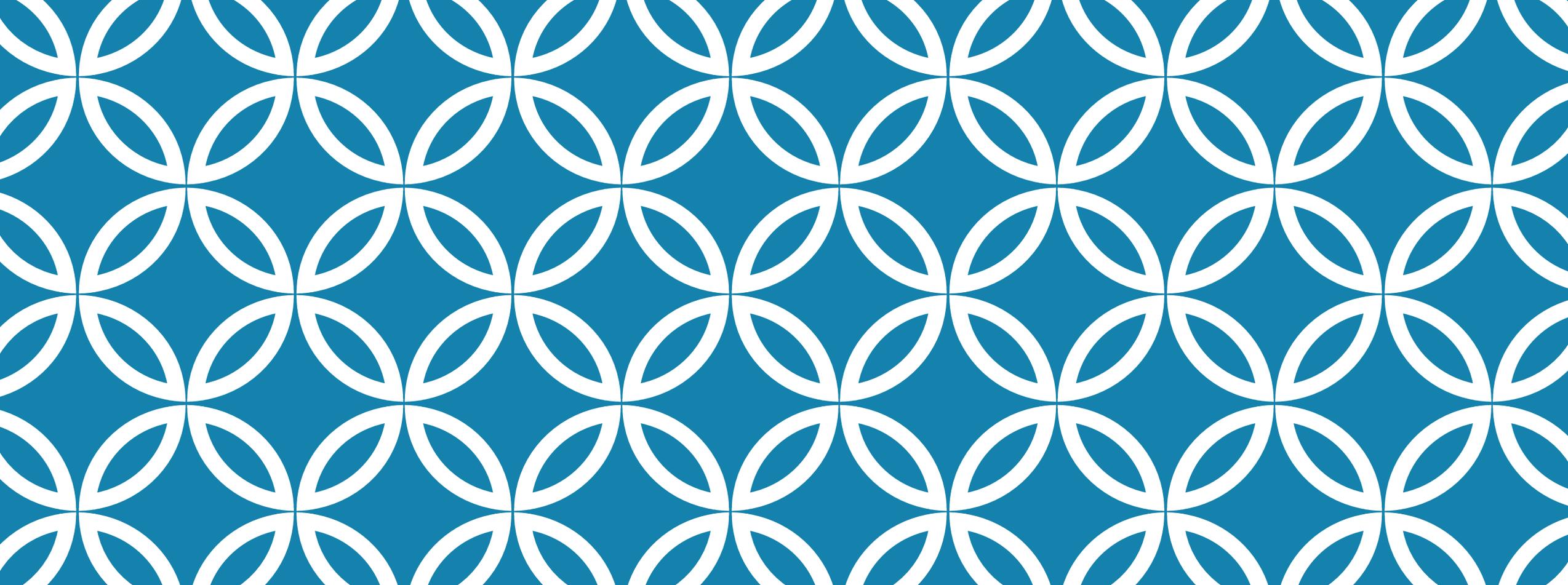
- Coughing excessively
- Low stamina/fatigue
- Cognition
- Breathing problems
- Sleeping/staying awake
- Etc.



Medical Recommendations for RTW

- If restrictions or accommodations are needed, send a letter to the employer (deliver via the patient unless you have permission to share):
 - On your letterhead (not on a prescription)
 - Documenting the disability, including the diagnosed impairment
 - Documenting the major life activity affected by the impairment
 - Identifying the work activity affected by the condition
 - Suggesting one or more accommodations
 - Offering to follow up





POST COVID CONDITION SYMPTOMS, TREATMENT, AND RETURN TO WORK

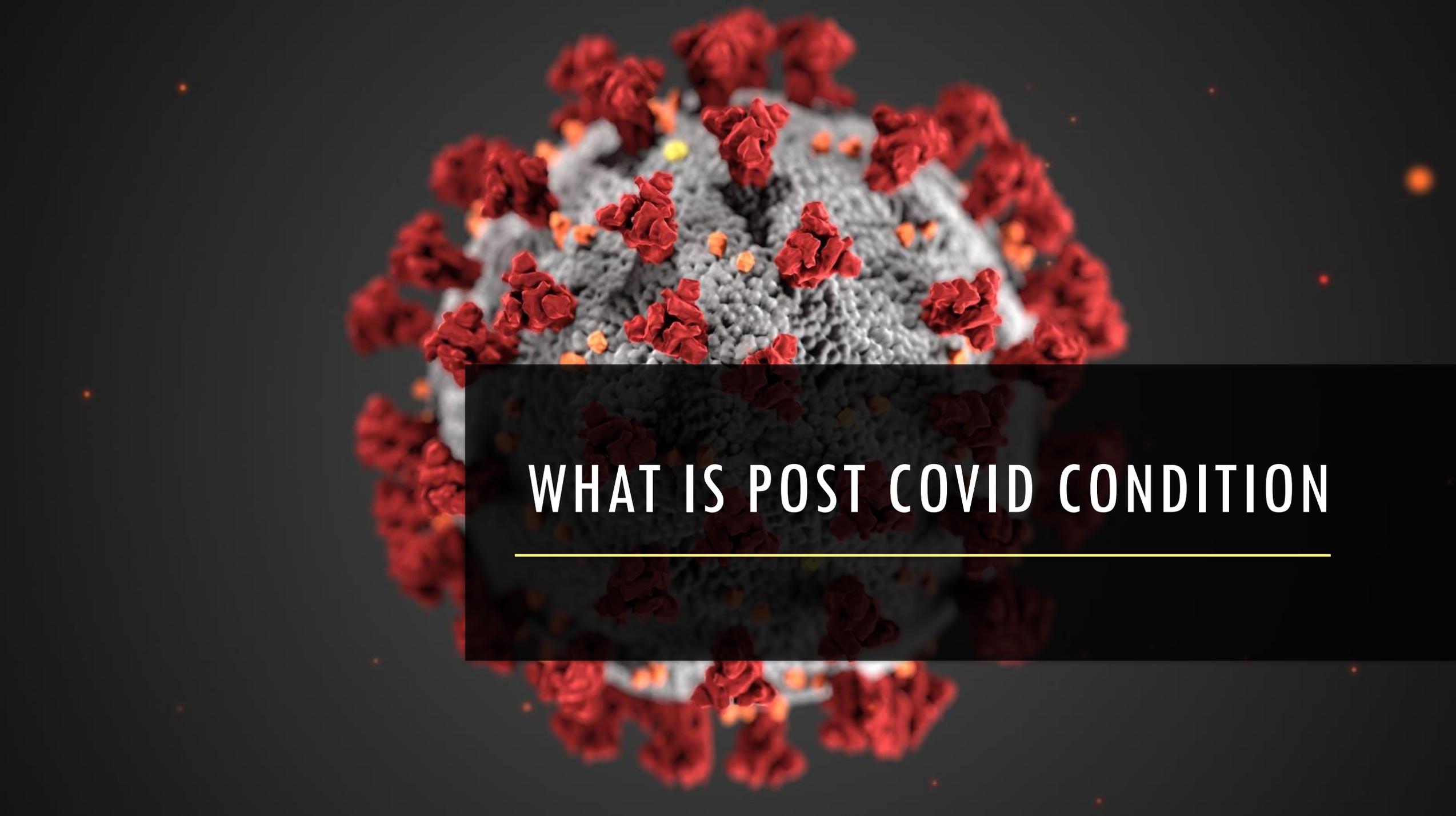
Greg Vanichkachorn MD, MPH,
FACOEM
Mayo Clinic



MAYO CLINIC POST COVID RECOVERY

COVID Activity Rehabilitation Program

- CARP
- April/May start
- Based on Post ICU work
- Formalized June 2020
- 600-700 patients



WHAT IS POST COVID CONDITION

CARP POPULATION

Fatigue 80%

Respiratory 59%

Neurologic 59%

Cognitive impairment 45%

Sleep disturbance 30%

Mental health sx 26%

**CARP
POPULATION
UNIQUE SX**

Tinnitus

Prolonged loss of taste and smell

Hair shedding (telogen effluvium)

Syncope

Sinus discomfort

GI Symptoms

CARP FUNCTIONAL LIMITATIONS

34% impaired ADLS

82% impaired IADLS

63% returned to work in some form

- 46% (29/63) were back at baseline work
- Average time to between infection and presentation was 3 months

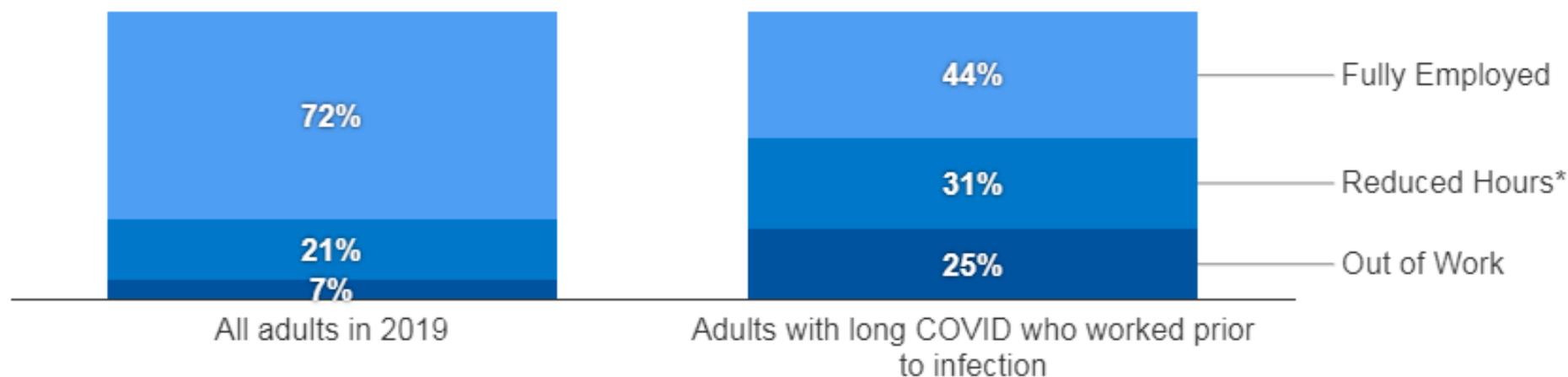
ADLs: Activities of Daily Living

IADLs: Instrumental Activities of Daily Living

Figure 2

Fewer than Half of Working Age Adults with Long COVID Who Worked Prior to Infection Work Full-Time After Infection

Employment status of working age adults (percent of population) for all adults in 2019 (Current Population Survey) and for survey respondents who worked prior to COVID infection (average of two surveys)



NOTE: KFF Analysis of: Katie Bach, "Is 'Long COVID' Worsening the Labor Shortage?" Brookings (Jan 1, 2022); Hannah E. Davis and others, "Characterizing Long COVID in an International Cohort: 7 Months of Symptoms and Their Impact, *The Lancet*, v. 38 (August 1, 2021); Workers' Experiences of Long COVID: A TUC Report (June 2021); and US BLS Labor Force Statistics from the Current Population Survey (2019).

[PNG](#)

KFF



TREATMENT PROCESS OVERVIEW

Post Acute Phase (0-4 weeks post infection)

- Check for complications
- Ensure hydration and nutrition
- Educate on paced activity
- Address return to work

Early PCS/PASC Phase 5-12 weeks

- Continue graded activity increases, minimizing post exertional malaise
- Additional testing and treatment as needed
- Monitor functional improvements
- Address return to work

PCS/PASC Phase >12 weeks

- Possible longer recovery course, up to a year
- Develop coping skills
- Education on central sensitization
- Uses experts in chronic fatigue and fibromyalgia



STEP 1: PSYCHOSOCIAL SUPPORT

- Patients Feel “abandoned”
- Guilt/self doubt
- Clinical depression/anxiety/PTSD

LISTEN AND VALIDATE



STEP 2: RULE OUT OTHER CONDITIONS

- Check for serious conditions
- 31% of ICU patients – clotting event
- 60% Heart inflammation at 70 days
- 1250 discharged patients
 - Within 60 days
 - 10.4% ICU patients died
 - 6.7% general ward patients died
 - 15% readmitted

-Klok FA, Kruij M, van der Meer NJM, et al. Incidence of thrombotic complications in critically ill ICU patients with COVID-19. *Thromb Res.* 2020;191:145-147-=-

-Puntmann VO, Carerj ML, Wieters I, et al. Outcomes of Cardiovascular Magnetic Resonance Imaging in Patients Recently Recovered From Coronavirus Disease 2019 (COVID-19). *JAMA Cardiol.* 2020;5(11):1265-1273.

-Chopra V, Flanders SA, O'Malley M, Malani AN, Prescott HC. Sixty-Day Outcomes Among Patients Hospitalized With COVID-19. <https://doi.org/107326/M20-5661>. 2020.

STEP 3: TARGETED EVALUATIONS



COMMON CONDITIONS WITH LONG COVID

Cardiovascular

- myocarditis/ pericarditis
- high blood pressure

Respiratory

- shortness of breath
- pulmonary fibrosis

Neurological

- headaches
- prolonged loss of taste and smell
- autonomic dysfunction such as postural tachycardia syndrome

Mental health

- anxiety
- depression
- PTSD

STEP 4: REHABILITATION

-COVID-19 Fatigue

- 41% reduced exercise capacity
- Hard to walk any distance
- Trouble with stairs
- Limited lifting
- Limited screen tolerance

-Rooney S, Webster A, Paul L. Systematic Review of Changes and Recovery in Physical Function and Fitness After Severe Acute Respiratory Syndrome-Related Coronavirus Infection: Implications for COVID-19 Rehabilitation. *Phys Ther.* 2020;100(10):1717-1729

-George PM, Barratt SL, Condliffe R, et al. Respiratory follow-up of patients with COVID-19 pneumonia. *Thorax.* Aug 2020;doi:10.1136/thoraxjnl-2020-215314





REHABILITATION

Post Exertional Malaise

Also seen in ME/CFS

After physical stress

- 30% reported fatigue, flu like sx, muscle pain

Graded exercise

- Negative effect in 54-74% of patients

-Geraghty K, Hann M, Kurtev S. Myalgic encephalomyelitis/chronic fatigue syndrome patients' reports of symptom changes following cognitive behavioural therapy, graded exercise therapy and pacing treatments: Analysis of a primary survey compared with secondary surveys. *J Health Psychol.* 2019;24(10):1318-1333

-Chu L, Valencia IJ, Garvert DW, Montoya JG. Deconstructing post-exertional malaise in myalgic encephalomyelitis/ chronic fatigue syndrome: A patient-centered, cross-sectional survey. *PLoS One.* 2018;13(6):e0197811.



REHABILITATION

-Rehabilitation \neq exercise

-Use Adaptive Paced Therapy
“LOW AND SLOW”

Not simply “stop when it hurts”

Gradual increases (i.e., 10 min to 13 min of walking)

Mental and physical activities

Applies to work activities



TITRATED WORK HOURS

NOT “come back when you are 100%”

Don't start back full duty

“4 hours of work, three days a week, with a day of rest between”

Gradual increase as tolerated

“4 hours of work, 4 days a week”

TITRATED WORK HOURS

Hard for some employers to offer only 12 hours of work per week

Home activities can simulate.

Volunteer activities also can be used to test activity

COMMUNICATION

“I haven’t talked to my employer for 2 months”

Be proactive

Work status every 2-4 weeks

Use messaging between visits

REMOTE WORK

Control environment

Self pace (4 hours of work in 8 hour day)

Clear communication not indications of long-term remote work

SYMPTOM SPECIFIC RECOMMENDATIONS EXAMPLES

SYMPTOMS	RECOMMENDATION
Fatigue	“Self pace” or “no pace sensitive work” Limit weight manipulation/standing/walking Provide options for sitting
Mental fatigue/Brain fog	Provide quiet work environment Limit multitasking
Sleep disturbance	Avoid early morning start time
Hoarseness	Limit required speaking
Shortness of breath	Reduce exposure to irritating environments and exertion. Avoid temperature and humidity extremes

3 IMPORTANT ASSOCIATED CONDITIONS

Mental Health

- Anxiety, Depression, PTSD
- Therapy
- Medications (i.e., antidepressants, sedatives)

Sleep Disturbance

- Too much/too little
- Obstructive sleep apnea

Neurological impairment

- Disturbed taste and smell
- Dysfunction in 36.6%
- 5% still having sx at 6 months



SAFETY

Limit travel to work site

“No operation of heavy machinery”

“No work around bodies of water or exposed heights”

“No work with dangerous chemicals or exposed electricity.”

“No safety sensitive duties”

To Ask a Question

- Using the Zoom Webinar System
 - Click on the “Q&A” button
 - Type your question in the “Q&A” box
 - Submit your question
- If you are a patient, please refer your question to your healthcare provider.
- If you are a member of the media, please direct your questions to CDC Media Relations at 404-639-3286 or email media@cdc.gov

Continuing Education

- All continuing education for COCA Calls is issued online through the CDC Training & Continuing Education Online system at <https://tceols.cdc.gov/>.
- Those who participate in today's COCA Call and wish to receive continuing education please complete the online evaluation by **Monday, July 17, 2023**, with the course code **WC4520-061523**. The access code is **COCA061523**.
- Those who will participate in the on-demand activity and wish to receive continuing education should complete the online evaluation between **July 18, 2023**, and **July 18, 2025**, and use course code **WD4520-061523**. The access code is **COCA061523**.
- Continuing education certificates can be printed immediately upon completion of your online evaluation. A cumulative transcript of all CDC/ATSDR CEs obtained through the CDC Training & Continuing Education Online System will be maintained for each user.

Today's COCA Call Will Be Available to View On-Demand

- **When:** A few hours after the live call ends*
- **What:** Video recording
- **Where:** On the COCA Call webpage
https://emergency.cdc.gov/coca/calls/2023/callinfo_061523.asp

**A transcript and closed-captioned video will be available shortly after the original video recording posts on the COCA Call webpage.*

Upcoming COCA Calls & Additional Resources

- Join us for our next COCA Call, Tuesday, June 20 at 2 PM ET.
Topic: [What Clinicians Need to Know about Zoonotic Influenza](#)
- Continue to visit <https://emergency.cdc.gov/coca/> to get more details about upcoming COCA Calls.
- Subscribe to receive notifications about upcoming COCA calls and other COCA products and services at emergency.cdc.gov/coca/subscribe.asp.

Thank you for joining us today!



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