Post Covid Conditions and Exercise Recommendations

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My 'why'

To **educate** and **empower** all humans to move more and live better

INTRODUCTION

TODAY'S FOCUS

Current Findings

Symptoms post covid

Recovery guidelines

Definition

■ "Post-COVID conditions" is an umbrella term for the wide range of physical and mental health consequences experienced by some patients that are present four or more weeks after SARSCoV-2 infection

The current findings

46% of those with Covid-19 have reported fatigue, lasting weeks to months (Sandler et al. 2021)

23% was the overall prevalence of fatigue 21 days post symptom onset as found by a meta-analysis of studies (Sandler et al. 2021)

Symptoms in Post-Covid conditions

Common Post-COVID Symptoms

- Dyspnea or increased respiratory effort
- Fatigue
- Post-exertional malaise
- "Brain fog," cognitive impairment
- Cough
- Chest pain
- Headache
- Palpitations and/or tachycardia
- Arthralgia
- Myalgia
- Paresthesia

- Abdominal pain
- Diarrhea
- Insomnia and other sleep difficulties
- Fever
- Lightheadedness
- Impaired daily function and mobility
- Pain
- Rash (e.g., urticaria)
- Mood changes
- Anosmia or dysgeusia
- Menstrual cycle irregularities

Symptoms in Post-Covid conditions

- •Armange et.al.(2021): at 6 weeks:
- -40% dyspnea
- -32% Sleep Disorders
- –26% Anxiety
- -54% recovered
- •Carfi et.al.(2020):
- -Only 12% fully recovered at 60 days
- •Townsend et.al. (2020):
- -52% persistent fatigue at 10 weeks
- -Incidence unrelated to severity of acute disease
- •Moreno-Perez et.al (2021):
- -51% with at least 1 persistent symptom at 10-14 weeks
- -19% chest imaging study abnormalities
- -9% Spirometry abnormalities

Consequences of Post Covid Conditions

Health

- Persistent and fluctuating symptoms
- Debilitating impacts on health
- Ongoing rehabilitation needs

Social and Economic

- Financial impact on individual / society
- Social attitudes to sufferers
- Lack of healthy socialisation

Work

- Ability to return to work (RTW) safely
- Linking abilities to work demands
- Managements attitude to accommodating RTW

Best practice rehabilitation and recovery guidelines post covid

"For many, it's a case of returning to exercise and work WITH post covid conditions rather than after post covid conditions"

Outcomes of a COVID-19 Recovery Program for Patients Hospitalized with SARS-CoV-2 Infection in New York City: A Prospective Cohort Study.

(Farah Hameed, MD, Eugene Palatulan, MD; Abhishek Jaywant, PhD; Rami Said, PT, DPT, Meng; Corinna Lau, PT, DPT; Vandana Sood, MD; Aimee Layton, PhD; Alfred Gellhorn, MD (2021))

- N=106 discharged home from hospital
- 44 got 1:1 Exercise Physiology
- •25 got Telehealth Exercise Physiology
- •17 got independent Exercise program
- •20 had no Exercise Physiology
- •Outcome measures were 30 sec sit to stand (STS) test for Lower Limb strength and 3 min step test for endurance
- •1-2x/ week, re-assessed after 2 weeks

•30 second sit-to-stand test for Lower Limb strength testing

 1:1 and Telehealth groups reached clinically meaningful improvements. No exercise physiology and independent exercise did not

•3 min step test for cardiopulmonary endurance

-1:1 Exercise Physiology group reached clinically meaningful improvement. Others did not



- Thorough history taking and goal setting (including a digital plan).
- Following infection and home quarantine general re-conditioning
- Cardiovascular fitness, Muscular strength and endurance training
- Pacing and graded exposure to avoid symptom flares
- Return to sport plans
- Return to work plans
- General Nutritional and Hydration advice
- Education & lifestyle advice
- Home Exercise Program on our digital platform, Physitrack

Who qualifies for Post Covid Rehab program?

For positive COVID-19 patients WITH symptoms:

- May resume/ commence care if fever has been resolved without medication and improvement of cough, shortness of breath;
- –AND 1. Negative test; OR
- -2. 24 hours since recovery of fever and respiratory improvement (cough etc); AND
- -3. 7 days since symptoms first appeared.

For positive COVID-19 patients **WITHOUT** symptoms: May resume/ commence care if:

- –1. Negative test; OR
- -2. 7 days since positive test and still no symptoms

Contraindications to Exercise

- Cardiologist clearance if known cardiac symptoms
- •SpO2 <88%, or 10% below resting SpO2 -> discontinue exercise
- •HR <50 or >140, systolic BP <90 or >200 -> discontinue exercise
- •New Onset Angina -> discontinue, seek emergency care



Thank you

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