

# LONG COVID -19 MYTH OR REALITY ?

European Academy Rehabilitation Medicine

June 11 2021

General Assembly

Henk J Stam



## VIDEOS



Henk Stam: Video regarding Covid-19: Call for Action

J Rehabil Med 2020; 52: jrm00044

## COMMENTARY



### COVID-19 AND POST INTENSIVE CARE SYNDROME: A CALL FOR ACTION

Henk J. STAM, MD, PhD<sup>1</sup>, Gerold STUCKI, MD, MS<sup>2,3</sup>, Jerome BICKENBACH, LLB, PhD<sup>2,3</sup> on behalf of the European Academy of Rehabilitation Medicine

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**Although we are currently overwhelmed by the astonishing speed of infection of the Covid-19 pandemic, and the daily onslaught of new, and ever-worsening predictions, it is vital that we begin to prepare for the aftershocks of the pandemic. Prominent among this will be the cohort of post-intensive case survivors who have been mechanically ventilated and will likely experience short- and medium-term consequences. The notion that patients surviving intensive care and mechanical ventilation for several weeks can be discharged home without further medical attention is a dangerous illusion. Post Intensive Care Syndrome and other severe conditions will require not only adequate screening but early rehabilitation and other interventions. Action must be taken now to prepare for this inevitable aftershock to the healthcare system.**



**Table I.** Post Intensive Care Syndrome (PICS)

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*Cognitive impairments*

Memory  
Attention  
Visuo-spatial  
Psychomotor  
Impulsivity

*Psychiatric illness*

*Anxiety*

Depression  
Post traumatic stress disorder

*Physical impairments*

Dyspnea/Impaired pulmonary function  
Pain  
Sexual dysfunction  
Impaired exercise tolerance  
Neuropathies  
Muscle weakness/Paresis  
Severe fatigue

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**Table II.** Risk Factors for Post Intensive Care Syndrome (PICS)

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Delirium  
Duration of ICU admission  
Duration of sedation  
Duration of mechanical ventilation  
Age  
Hypoxia and hypotension  
Sepsis  
Glucose dysregulation  
Premorbid mental and physical comorbidity

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ICU: intensive care unit.




## NEED TO SCALE UP EARLY REHABILITATION

- INTRODUCE SCREENING FACILITIES FOR ICU SURVIVORS
- REACH CONSENSUS ON SCREENING INSTRUMENTS
- INSTALL INTERVENTIONS AND COUNSELING IN PRIMARY CARE FOR MILD CASES
- ESTABLISH IN- AND OUTPATIENT MULTIPROFESSIONAL REHABILITATION IN REHABILITATION HOSPITALS AND DEPARTMENTS

# PUBLICATIONS ON PUBMED MAY 17 2021

Covid-19	134.333
Covid-19 and rehabilitation	3112
Covid-19 and rehabilitation and physiotherapy	420
Covid-19 and fatigue	1394
Post Covid-19 and rehabilitation	346

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# MAIN CHALLENGE IS LONG TERM COVID-19

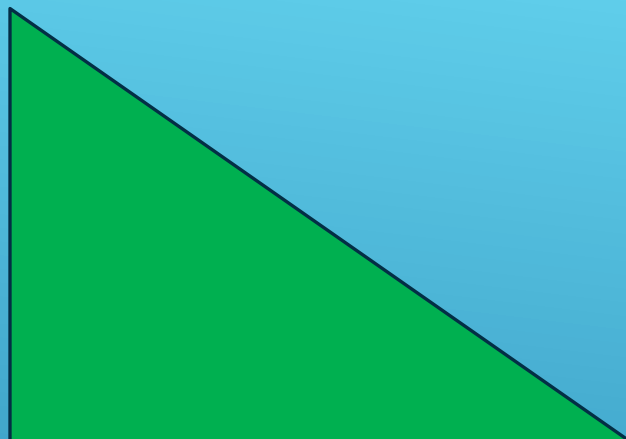
About 10 % of patients still have problems more than 3 months after Covid -19 infection.

Duration of long term problems > 6-9 months

Main question: Is long covid / longhauler covid just a protracted recovery or a separate entity ??

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symptoms

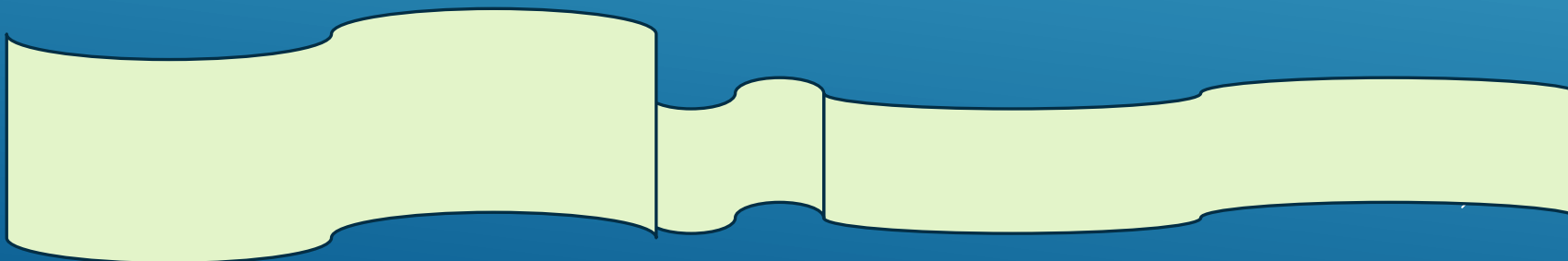


time

Post covid



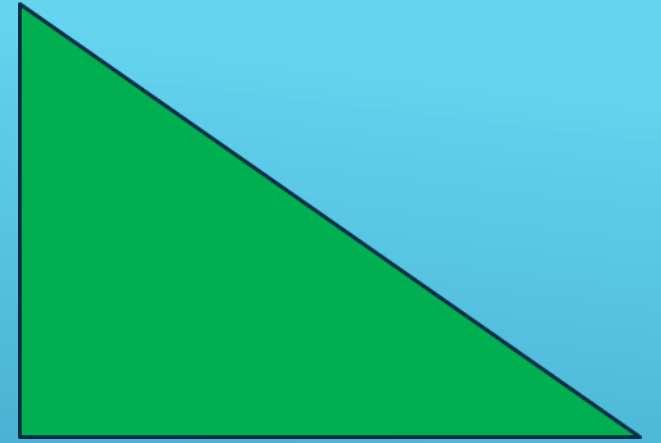
Protracted covid



Longhailer

# POST COVID SYMPTOMS

- ▶ Symptoms are result of a covid-19 infection and/or its complications/ and or ICU episode and/or hospitalisation or episode at home
- ▶ Symptom severity is positively related to severity of acute episode
- ▶ Symptoms improve gradually spontaneously or with additional interventions
- ▶ Symptoms and signs are consistent and can be objectively assessed.

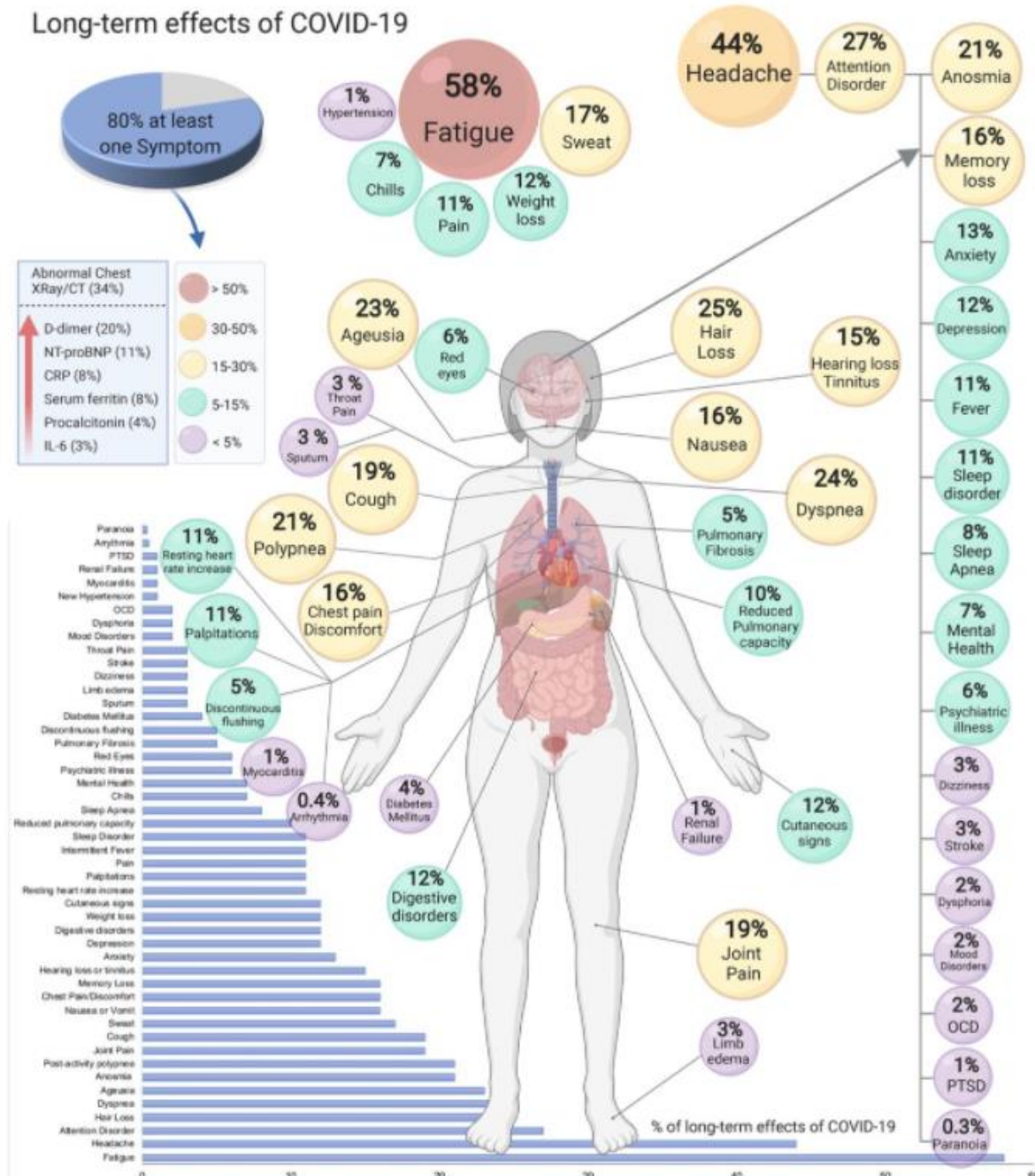




# More Than 50 Long-Term Effects of COVID-19: A Systematic Review and Meta-Analysis

Free PMC article

## Long-term effects of COVID-19





Henk



20+



## Groepen



Groepen zoeken



Je overzicht



Ontdekken



Je meldingen

+ Nieuwe groep maken

### Groepen waarvan je lid bent



COVID-19 Long Haulers Support

Laatst actief: 4 uur geleden



Groep van Laney Bond

## COVID-19 Long Haulers Support

Groep (Openbaar) · 29,3 d. leden





+ Uitnodigen

Tired	Low energy	Breathin g	Foot pain	Taste Bad smell	Lung function	Palpi- tations	Tachy- cardia	Brain fog	Chest pain
Eating	Tinnitus	Skin rash	Hair loss	Weight gain	Acne	Joint pain	Instable tempera ture	Indigesti on	Bloating
Diarrhea	Constip ation	Nausea	Vomitin g	Intestinal cramps	Flatulen ce	Skin tingling	Sinusitis/ congesti on	Reflux	Memory loss
Confusio n	Muscle weak- ness	Dizziness	Head ache	Mental exhausti on	Anxiety	Fever	Physical exhausti on	Depres- sion	

**COVID-19 Long Haulers Support**



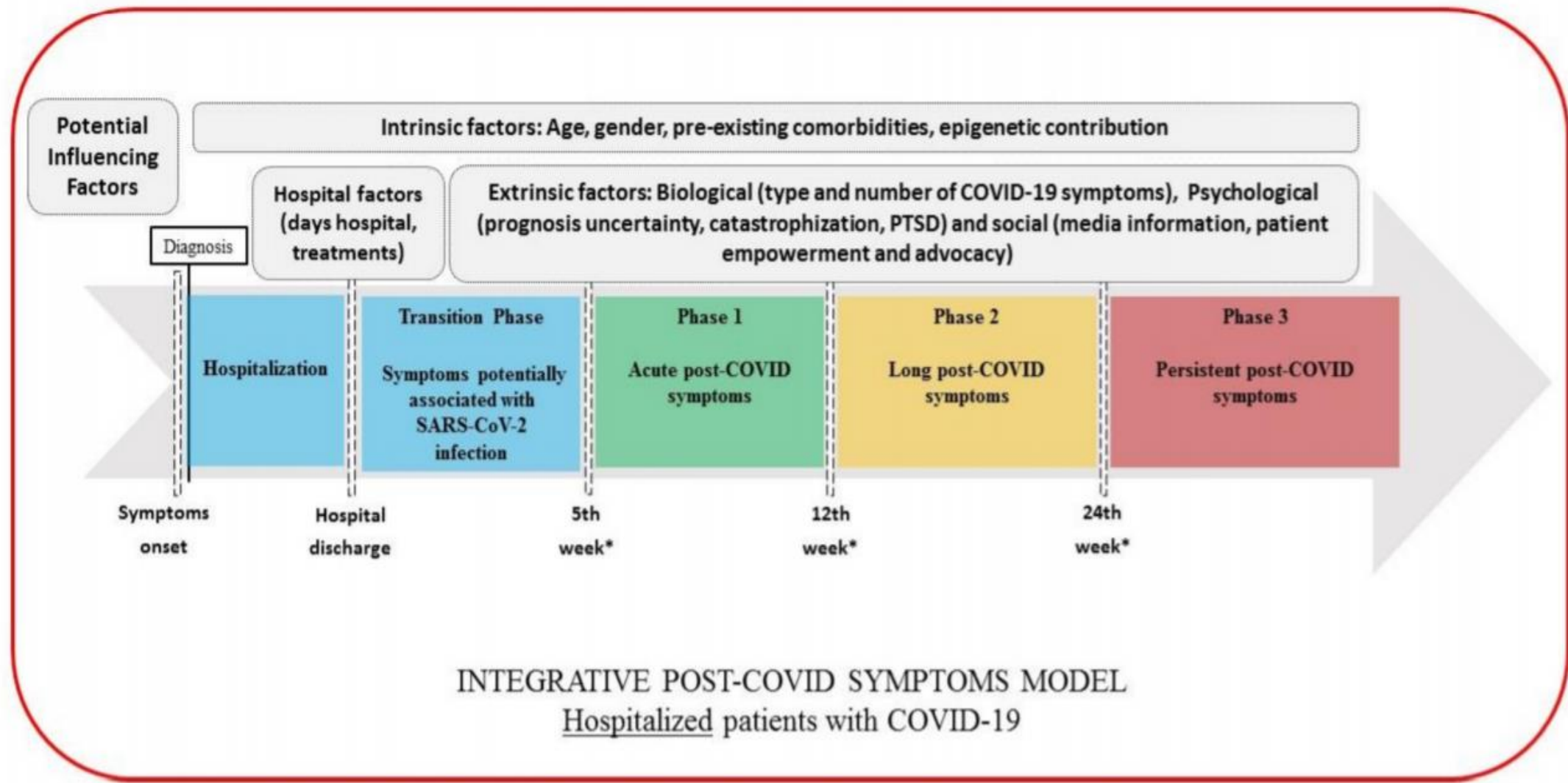
# Persistent fatigue following SARS-CoV-2 infection is common and independent of severity of initial infection

Liam Townsend  , Adam H. Dyer , Karen Jones, Jean Dunne, Aoife Mooney, Fiona Gaffney, Laura O'Connor, Deirdre Leavy, Kate O'Brien, Joanne Dowds, Jamie A. Sugrue, David Hopkins, Ignacio Martin-Loeches, [ ... ], Niall Conlon   
[ view all ]

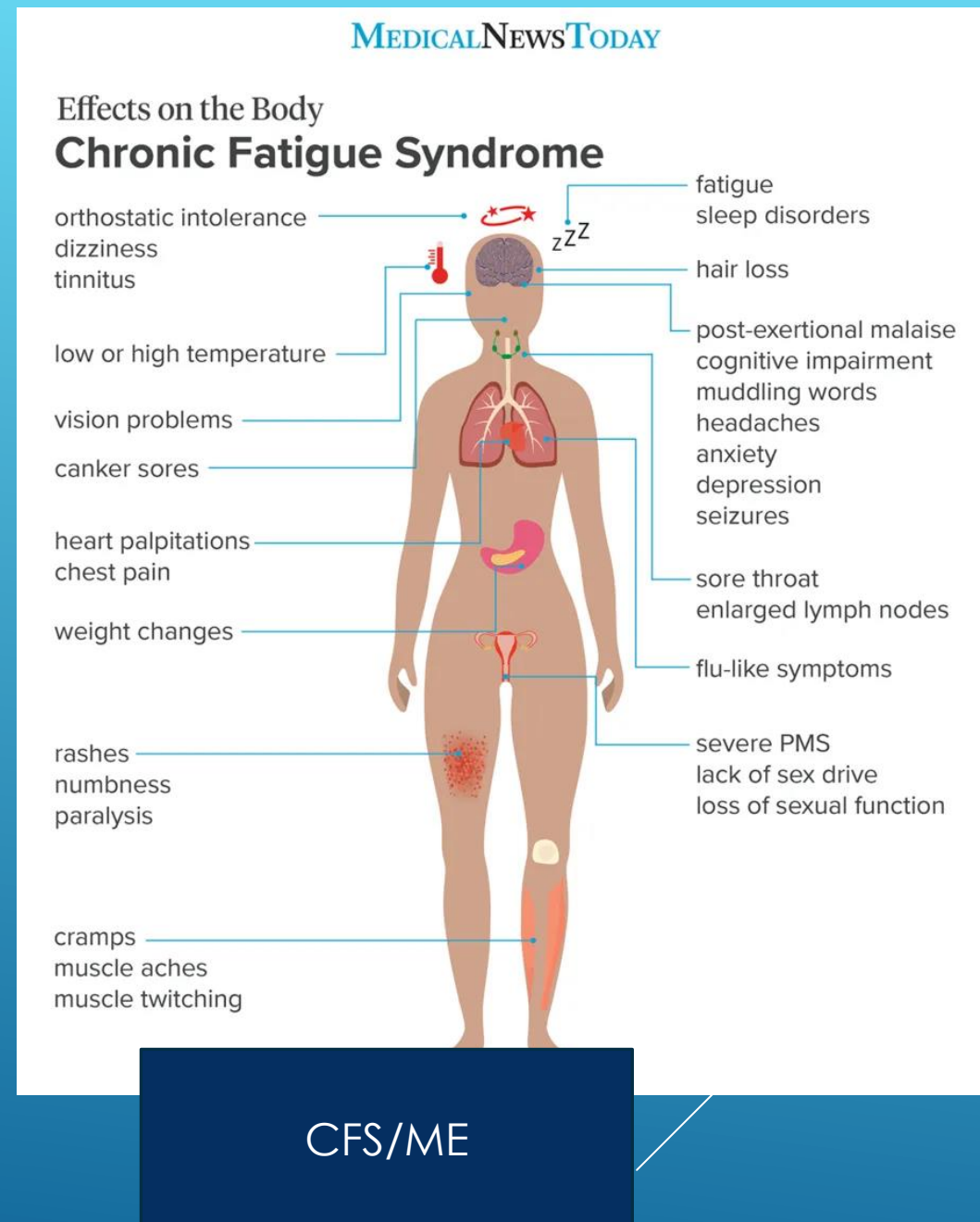
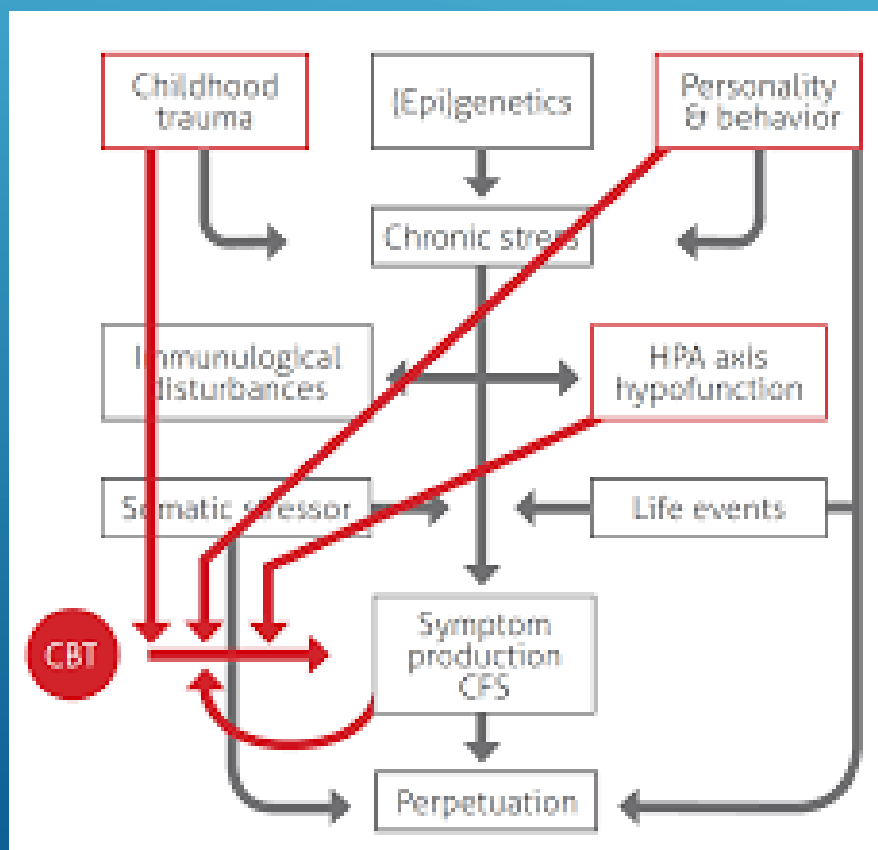
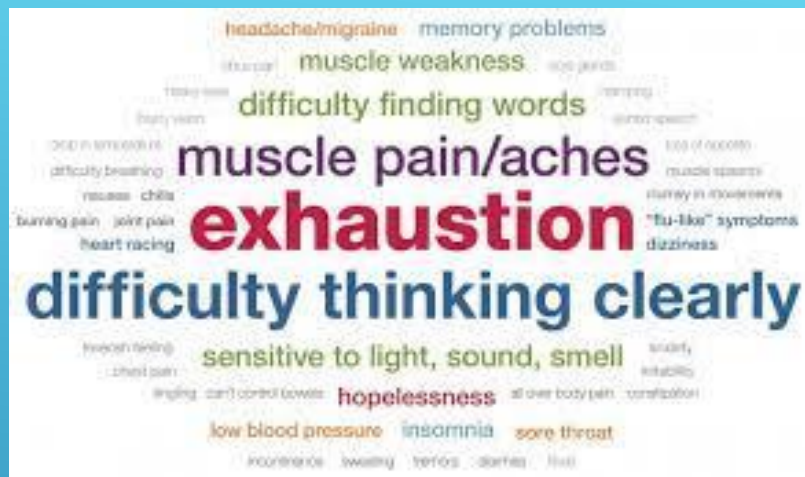
Published: November 9, 2020 • <https://doi.org/10.1371/journal.pone.0240784>

Fatigue is a common symptom in those presenting with symptomatic COVID-19 infection. However, it is unknown if COVID-19 results in persistent fatigue in those recovered from acute infection. We examined the prevalence of fatigue in individuals recovered from the acute phase of COVID-19 illness using the Chalder Fatigue Score (CFQ-11). We further examined potential predictors of fatigue following COVID-19 infection, evaluating indicators of COVID-19 severity, markers of peripheral immune activation and circulating pro-inflammatory cytokines. Of 128 participants ( $49.5 \pm 15$  years; 54% female), more than half reported persistent fatigue (67/128; 52.3%) at median of 10 weeks after initial COVID-19 symptoms. There was no association between COVID-19 severity (need for inpatient admission, supplemental oxygen or critical care) and fatigue following COVID-19. Additionally, there was no association between routine laboratory markers of inflammation and cell turnover (leukocyte, neutrophil or lymphocyte counts, neutrophil-to-lymphocyte ratio, lactate dehydrogenase, C-reactive protein) or pro-inflammatory molecules (IL-6 or sCD25) and fatigue post COVID-19. Female gender and those with a pre-existing diagnosis of depression/anxiety were over-represented in those with fatigue.

Our findings demonstrate a significant burden of post-viral fatigue in individuals with previous SARS-CoV-2 infection after the acute phase of COVID-19 illness. This study highlights the importance of assessing those recovering from COVID-19 for symptoms of severe fatigue, irrespective of severity of initial illness, and may identify a group worthy of further study and early intervention.

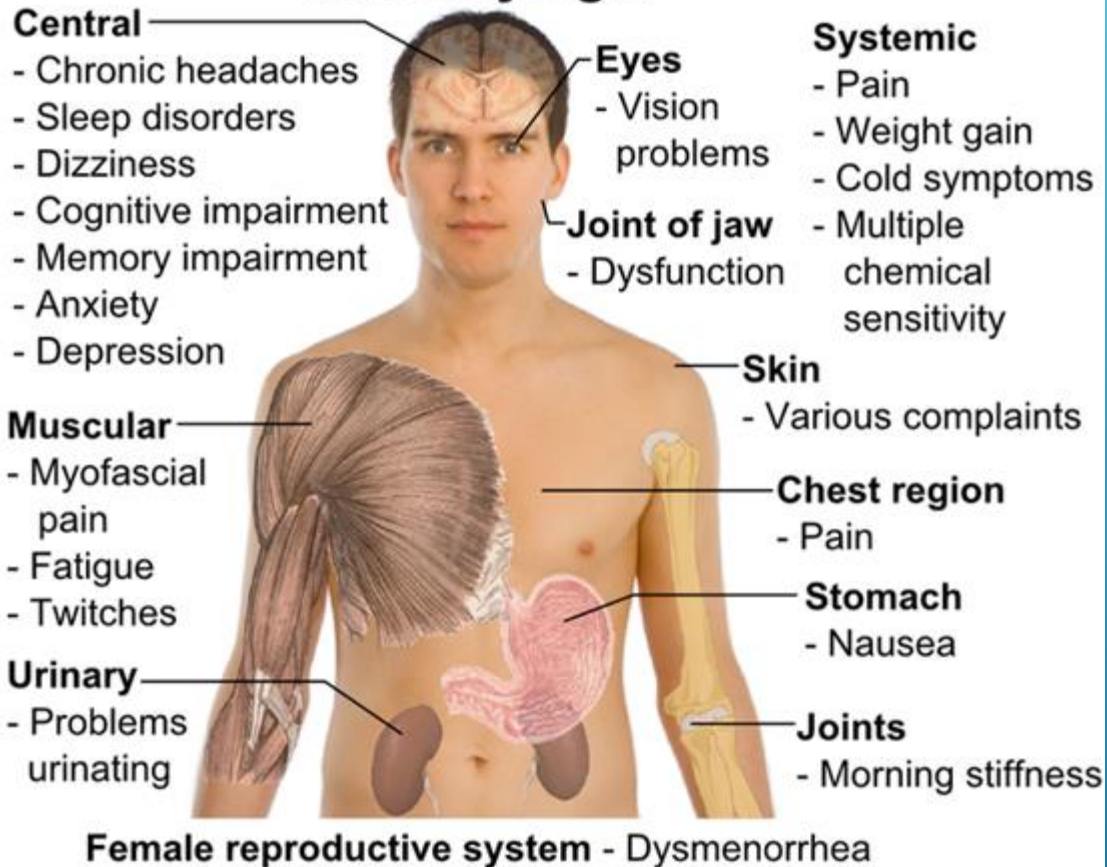


**Figure 2.** Integrative post-COVID symptoms model in hospitalized patients showing transition phase (blue), and phases 1 (green), 2 (yellow), and 3 (red) of post-COVID symptoms. PTSD: post-traumatic stress disorder.





## Symptoms of Fibromyalgia



## Fibromyalgia causes



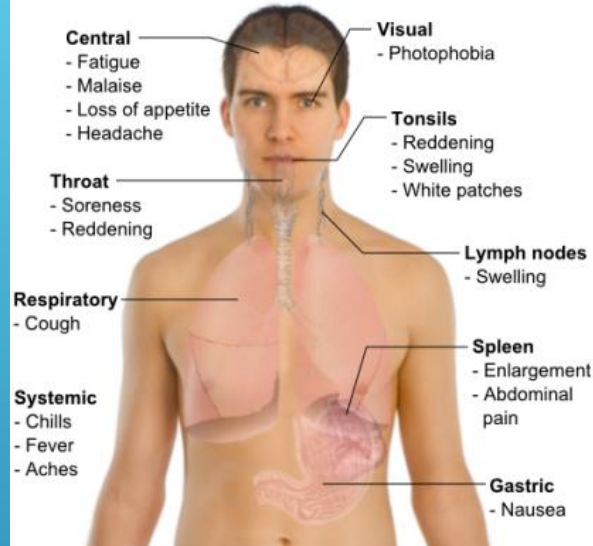
- The exact cause of fibromyalgia is unknown
- It involves psychological, genetic, neurobiological and environmental factors.
- But, there is evidence of the following:
  - Environmental factors
  - Genetics
  - Depression disorders
  - Neuro-chemical imbalances
  - Brain abnormalities that results in altered pain perceptions

## Physical Symptoms of Burnout

- Feeling exhausted, no matter how much sleep you get
- Waking up tired
- Losing / picking up a lot of weight
- Blood pressure too low / high
- Getting ill often, especially colds & flu
- A lot of headaches / migraines
- Often feeling light-headed / dizzy
- Muscle pain & aches
- Can't sleep / sleep too much
- Over- or under-eating
- Losing body hair
- Skin discoloration (hyperpigmentation)
- Irritable bowel syndrome (IBS)
- Feeling bloated & swollen for no apparent reason

TIARA TRIBE

## Main symptoms of Infectious mononucleosis



## What is postnatal depression?

For most families the birth of a child is a joyous occasion; bringing new hope for the future. But for some, events take a difficult turn a few weeks after birth (or sometimes before birth)<sup>3</sup>, when mothers start to feel one or more of the following symptoms:

- Low mood/miserable most of the time
- Constantly exhausted
- Feeling unable to cope
- Feeling guilty about not being able to cope about not loving the baby enough
- Overwhelming anxiety about the baby
- Tearful for no reason
- Difficulty in sleeping
- No appetite or the urge to eat
- Difficulties in bonding with the baby
- Difficulties in their relationship with their partner
- Low energy levels
- Low sex drive
- Withdrawal from family or friends

depression, and experienced considered severe postnatal

The most frequently quoted experiencing mild postnatal 10-15 women out of every (i.e. between one in ten and estimates vary and can be 4Children survey, conducted new mums<sup>8</sup> suggested that with three out of ten mums the age of 2 believing that form of postnatal depression survey found that those with ('multi mums') are more likely postnatal depression than

There is some evidence to mothers are still depressed birthday<sup>10</sup> and about a third symptoms of postnatal depression continue to have postnatal of their child.

## BASIC WHIPLASH SYMPTOMS



## LYME DISEASE SYMPTOMS

If bit by a tick carrying lyme bacteria you may get some / all of the following symptoms:

- Fatigue
- Weakness
- Headache
- Back Pain
- Joint/Muscle Pain
- Stiff/Sore Neck
- Nausea/Diarrhea
- Sore Throat
- Swollen Glands
- A Rash
- Dizziness
- Confusion
- Buzzing In Nerves
- Paralysis
- Trouble With : Speaking, Thinking,
- Talking, Walking, Concentrating
- Trouble Breathing
- Mood Swings, Crying Spells

**SEEK HELP GET ANTIBIOTICS AND SEE A LYME LITERATE M.D.**

## ARE YOU CLINICALLY

Hypersensitive (allergic) to EMFs?

IF You are, You May Be Experiencing Symptoms Like the Following:

NAUSEA

TINNITUS  
RINGING IN YOUR EARS

ROSACEA  
FACIAL RASHES

HEART  
ARRHYTHMIA

HEADACHES

DIZZINESS

FATIGUE  
YOU FEEL TIRED MOST OF THE TIME

MUSCLE  
AND JOINT PAIN



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# SUMMARIZING LONG (HAULER) COVID

It is common

It differs from (short) post covid

Symptoms are not specific and involve all body systems

Striking resemblance with other syndromes

Origin of symptoms remains unclear

No relation between initial severity and long term symptoms

Mainly young women

Symptoms do not improve over time

Symptoms are instable over time

Success of interventions is disappointing

Impact on quality of life


Increase of sick -leave and unemployment

# LONG COVID -19; MYTH OR REALITY ?

- ▶ Reality : it is there !
- ▶ Myth : It is similar to other idiopathic/ aspecific syndromes
- ▶ Should we make distinction between **Specific post Covid** and **Aspecific long(hauler) Covid** ??



# CONSEQUENCES OF **ASPECIFIC** LONG COVID SYNDROME

- ▶ Consequences for anamnesis of complaints
  - ▶ Consequences for additional laboratory, imaging testing
  - ▶ Consequences for management of ALCS
  - ▶ Can we define subgroups with clusters of problems ?
  - ▶ When do we start interventions ?
  - ▶ What are most effective interventions?
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