MICHIGAN MEDICINE
UNIVERSITY OF MICHIGAN

Fatigue After COVID-19 Infection

What is chronic fatigue syndrome (CFS)?

Chronic fatigue syndrome (CFS) is a disabling and complex illness that often makes it difficult for people to perform usual daily activities due to overwhelming fatigue that is not improved by rest. CFS may get worse after any activity, whether it's physical or mental. Other symptoms can include problems with sleep, thinking and concentrating, pain, and dizziness. Anyone can get CFS. While most common in people between 40 and 60 years old, the illness affects children, adolescents, and adults of all ages. Among adults, women are affected more often than men.

What causes CSF?

Scientists have not yet identified what causes chronic fatigue syndrome (CFS). CFS may have more than one cause, meaning that patients with CFS could have an illness resulting from a combination of the following causes or other causes:

- Infections
- Immune system changes
- Stress affecting body chemistry
- Changes in energy production
- Genetics

What is the connection between CFS and COVID-19?

It is estimated that at least half of CFS are linked to a recent prior viral infection. Symptoms typically appear abruptly following a flu-like illness. To meet the diagnosis of CFS, symptoms must be present for at least 6 months. In cases where symptoms have resolved within 6 months, the condition is called Post-Viral Syndrome. There is growing evidence that infections with COVID-19 may be linked to CFS, but researchers are still studying this.

What are the symptoms of CFS?

- Greatly **lowered ability to do activities that were usual before the illness.** This drop-in activity level occurs along with fatigue and must last six months or longer.
- **Sleep problems.** People with CFS may not feel better or less tired, even after a full night of sleep. Some people with CFS may have problems falling asleep or staying asleep.
- **Problems with thinking and memory.** Most people with CFS have trouble thinking quickly, remembering things, and paying attention to details. Patients often say they have “brain fog” to describe this problem because they feel “stuck in a fog” and not able to think clearly.
- **Worsening of symptoms while standing or sitting upright. This is called orthostatic intolerance.** People with CFS may be lightheaded, dizzy, weak, or faint while standing or sitting up. They may have vision changes like blurring or seeing spots.
- **Pain** is very common in people with CFS. The type of pain, where it occurs, and how bad it is varies a lot. The pain people with CFS feel is not caused by an injury. The most common types of pain in CFS are muscle pain and aches, joint pain without swelling or redness, and headaches.
- **Depression, anxiety, stress**. Adjusting to a chronic, debilitating illness sometimes leads to other problems, including depression, stress, and anxiety.
- Worsening of CFS symptoms after physical or mental activity that would not have caused a problem before the illness. This is known as **post-exertional malaise (PEM).** During PEM, any CFS symptoms may get worse or first appear, including difficulty thinking, problems sleeping, sore throat, headaches, feeling dizzy, or severe tiredness. It may take days, weeks, or longer to recover from a crash.
- Some people with CFS may also have:
    - Tender lymph nodes in the neck or armpits
    - A sore throat that happens often

    - Digestive issues, like irritable bowel syndrome
    - Chills and night sweats
    - Allergies and sensitivities to foods, odors, chemicals, light, or noise
    - Muscle weakness
    - Shortness of breath
    - Irregular heartbeat

How is CFS diagnosed?

To diagnose chronic fatigue syndrome (CFS), a patient's doctor or health care provider will:

- Ask about the medical history of the patient and their family.
- Do a thorough physical and mental status examination.
- Order blood, urine, or other tests.

To get a better idea about the illness, the provider will ask many questions. Questions might include:

- What are you able to do now? How does it compare to what you were able to do before?
- How long have you felt this way?
- Do you feel better after sleeping or resting?
- What makes you feel worse? What helps you feel better?
- What happens when you try to push to do activities that are now hard for you?
- Are you able to think as clearly as you did before becoming ill?
- What symptoms keep you from doing what you need or want to do?

Patients may want to keep an activity journal. This could help them remember important details during their health care visit. Doctors might refer patients to see a specialist, like a neurologist, rheumatologist, or sleep specialist, to check for other conditions that can cause similar symptoms. These specialists might find other conditions that could be treated. Patients can have other conditions and still have CFS, but treating these conditions might help patients with CFS feel better.

What can I do to alleviate CFS?

There is no cure or approved treatment for CFS, but some symptoms can be treated or managed. Treating these symptoms might provide relief for some patients with CFS but not others. For example:

- Post-exertional Malaise:
    - Reduce sensory overload (light and sound).
    - Pace yourself to balance rest and activity to avoid PEM flare-ups.
    - Find your limits for mental and physical activity. Keeping an activity diary may be helpful.
    - Find ways to make activities easier. For example, sitting while doing the laundry or showering, taking frequent breaks, and dividing large tasks into smaller steps.
- Sleep:
    - Try to stay on a sleep schedule.
    - Try an over-the-counter sleep aid.
    - Consult your doctor, consider seeing a sleep specialist.
- Pain
    - Try an over the counter pain medication per doctor recommendations
    - Try stretching and movement therapies, gentle massage, heat, toning exercises, and water therapy for healing. Acupuncture, when done by a licensed practitioner, might help with pain for some patients.
    - Consult your doctor, consider seeing a pain specialist
- Depression, anxiety, stress:

  - Some people with CFS might benefit from antidepressants and anti-anxiety medications.
  - Try techniques like deep breathing and muscle relaxation, massage, and movement therapies (such as stretching, yoga, and tai chi). These can reduce stress and anxiety, and promote a sense of well-being.
- Memory and concentration difficulty:
  - Memory aids, like organizers and calendars, can help with memory problems.
  - Sometimes doctors may prescribe stimulant medications, for those with difficulty concentrating.
  - While stimulants might help improve concentration for some patients with CFS, they might lead to the ‘push-and-crash’ cycle and worsen symptoms. “Push-and-crash” cycles are when someone with CFS is having a good day and tries to push to do more than they would normally attempt (do too much, crash, rest, start to feel a little better, do too much once again).

What are the best strategies for living with CFS?

- Patients, their families, and healthcare providers need to work together to decide which symptom causes the most problems. This should be treated first.
- Patients, families, and healthcare providers should discuss the possible benefits and harms of any treatment plans, including medicines and other therapies.

Strategies that do not involve the use of medications and might be helpful to some patients are:

- Professional counseling: Talking with a therapist to help find strategies to cope with the illness and its impact on daily life and relationships.
- Balanced diet. A balanced diet is important for everyone’s good health and would benefit a person with or without any chronic illness.

- Nutritional supplements. Doctors might run tests to see if patients lack any important nutrients and might suggest supplements to try. Doctors and patients should talk about any risks and benefits of supplements, and consider any possible interactions that may occur with prescription medications. Follow-up tests to see if nutrient levels improve can help with treatment planning.
- Complementary therapies. Therapies, like meditation, gentle massage, deep breathing, or relaxation therapy, might be helpful.

Important note: Patients should talk with their doctors about all potential therapies because many treatments that are promoted as cures for CFS are unproven, often costly, and could be dangerous.

Adapted from CDC: Myalgic Encephalomyelitis/Chronic Fatigue Syndrome. Access at:
https://www.cdc.gov/me-cfs/treatment/index.html

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