

Post-Viral Fatigue Syndrome and Chronic Fatigue Syndrome

Many people may experience chronic (long-term) fatigue; however, this is not necessarily chronic fatigue syndrome (CFS), which is also known as myalgic encephalomyelitis (ME). Some degree of post-viral fatigue (PVF) or debility is a fairly common occurrence after any type of viral infection. Fortunately, in most cases, this is short lived and there is a steady return to normal health over a period of a few weeks.

When fatigue and flu-like symptoms persist for a longer period of time once the acute infection is over, a diagnosis of post-viral fatigue syndrome (PVFS) might be more appropriate, which has many similarities to CFS. With PVFS, there is research evidence to indicate that what is initially a perfectly normal immune system response to the acute infection has not abated after the infection is over. It is also possible that, as happens with CFS, there is a problem with the way that energy production takes place at a cellular level in structures called mitochondria.

The situation with persisting fatigue following coronavirus infection appears to be rather more complicated than what happens with other viral illnesses. It could also be more serious as fatigue and lack of energy are turning out to be very characteristic long-term symptoms of coronavirus infection, termed long Covid.

The precise explanation for what causes post-infection/viral fatigue remains uncertain. But one of the reasons why people have fatigue, loss of energy, muscular aches and pains, and generally feel unwell when they have an acute infection is the production of chemicals called cytokines by the body's immune system. These immune system chemicals form part of the front-line attack on any viral infection. It is also interesting to note that in people who develop serious respiratory complications from coronavirus infection, this may be due to an overactive immune

response involving what is being termed a 'cytokine surge' (or cytokine storm).

DIAGNOSING PVFS/CFS

Although one of the main symptoms of PVFS/CFS is severe and prolonged mental and physical fatigue, there is also a range of other symptoms that can include:

- Headaches
- Widespread muscular and/or joint pain
- Sleep disturbance
- Unrefreshing sleep may include hypersomnia in the early post-infection stage, fragmented sleep and restless legs syndrome later on. In more severe cases, there may be a reversal of normal sleep rhythm (ie. being awake at night but sleeping during the day).
- Difficulties with concentration and memory ('brain fog'). Cognitive dysfunction involving short-term working memory, concentration and attention span, information processing, and word-finding ability
- Post-exertional malaise – feeling fatigued and ill after activities. The malaise symptoms (a general feeling is discomfort, illness or unease) are amplified by physical and/or mental exertion with a delayed impact – later the same day, the next day, or even later. The amount of activity that provokes symptom exacerbation can be very minimal
- Sore throats and tender glands
- Dizziness and balance problems, feeling faint
- Odd sensations like pins and needles and numbness
- Sensitivity to light and noise
- Digestive disturbance
- Poor temperature control including increased sensitivity to hot and cold, sweating, feeling feverish.

Different people experience some symptoms more than others. For example,



pain can be a big problem for some and not others. Symptoms fluctuate in severity, throughout the day, day to day, and/or week to week. The pattern may change over time. There is a substantial and sustained reduction in both physical and mental activity. This has a major effect on all aspects of daily living. Exacerbations and relapses can be caused by infections, trauma and other stressors, including menstruation.

There is no agreed diagnostic criteria for PVFS/CFS. Diagnosis is based on a cluster of characteristic symptoms, as mentioned above, along with the exclusion of other possible explanations.

Most PVFS/CFS studies stipulate that a diagnosis should only be made after 6 months of symptoms. In clinical practice this should normally be regarded as the endpoint of the diagnostic process, starting from 6 weeks and working through a process of elimination of other possible causes of symptoms and piecing together a picture of the patient's condition through a series of consultations.

SEVERITY OF SYMPTOMS

The severity of PVFS/CFS can roughly be divided into three levels:

- **Mild cases.** You can care for yourself and can do light domestic tasks, but with difficulty. You are still likely to be able to do a job but may often take days off work. In order to remain in work you are likely to have stopped most leisure and social activities. Weekends or other days off from work are used to rest in order to cope.
- **Moderate cases.** You have reduced mobility and are restricted in most activities of daily living. The level of ability and severity of symptoms often varies from time to time (peaks and troughs). You are likely to have stopped work and require rest periods. Sleep at night tends to be poor and disturbed.
- **Severe cases.** You are able to carry out only minimal daily tasks such as face washing and cleaning teeth. You are likely to have severe difficulties with some mental processes, such as concentrating. You may be wheelchair-dependent for mobility and may be unable to leave your home except on rare occasions. You usually have severe

prolonged after-effects from effort. You may spend most of your time in bed. You are often unable to tolerate any noise and are generally very sensitive to bright light.

WHO DEVELOPS PVFS/CFS?

CFS can affect anyone. It is estimated that CFS affects about 1 in 300 people in the UK, possibly more. It is about three times as common in women as in men. The most common age for it to develop is in the early twenties to mid-forties. In children the most common age for it to develop is 13–15 years old but it can develop at an earlier age. The current data suggest that the risk of long-covid following Covid-19 infection seems to be higher for women and also rises with age – particularly those over 50.

WHAT CAUSES PVFS/CFS?

PVFS/CFS is a complex condition and there is, as yet, no consensus on a single cause. We often see people who have developed PVFS/CFS following viral infections, such as glandular fever, and bacterial infections, such as pneumonia. Other people can identify a period of stress leading up to the start of the illness. A combination of infection and stress is also common. Hence, the recent concern that the new Covid-19 virus could potentially result in survivors developing CFS if not properly managed in their recovery.

UNDERSTANDING PVFS/CFS: THE BIOPSYCHOSOCIAL MODEL

'Biopsychosocial' is a term we use to understand the various factors that affect or are affected in people with PVFS/CFS: these are biological, psychological and social. Using this term does not mean we believe your illness is psychological (it's NOT all in your head!), as many health conditions influence us in all three areas. As you will have experienced, PVFS/CFS causes many different symptoms and influences many different parts of your life.

For example, when you have PVFS/CFS you are:

- Physically unwell and experience, for example, fatigue and pain – these are biological symptoms.
- You may feel less like your normal self and this can lead to feelings of unhappiness, frustration, confusion, anger, anxiety, depression, etc. – these are psychological effects.

- You may not feel able to see friends as much – your social circumstances are being affected.

Whatever is happening to your body physically (eg. fatigue, pain, dizziness) is also having a knock-on effect psychologically (changing the way you feel and behave) and socially (changing your activity, working life, and ability to see friends). It is important to understand how PVFS/CFS affects these aspects of your life (not just the physical symptoms) in order to help you improve the quality of your life.

1. Precipitating (Triggering) Factors

There are many possible precipitating factors that may 'set off' PVFS/CFS, such as a viral illness or accident, an accumulation of stress, a sudden unexpected loss or accident. It is unlikely there will be just one trigger to your PVFS/CFS, although this is possible. Many triggers may come together at the same time, overloading the body physically and mentally. These triggers may have accumulated over time or be sudden and overwhelming.

2. Perpetuating (Maintaining) Factors

Those factors that caused PVFS/CFS at the beginning are not always the same as those that are causing your symptoms to continue. Being aware of things that make symptoms worse right now is very important. This may include 'overdoing' it, arguments, poor sleep, low mood, cold weather, other health conditions, etc.

Of course, there may also be things that you find help your symptoms, such as recognising external and internal strengths, i.e. family support, ability to practise relaxation.

3. Predisposing (Pre-existing) Factors

Finally, sometimes we can recognise pre-existing problems that may have increased your risk of developing PVFS/CFS. This may include a lifestyle that allowed you very little time to rest or relax, a biological vulnerability to illness, difficulty saying 'no' to requests, extremely high expectations or being a 'perfectionist', or a prolonged exposure to stress and trauma.

Predisposing factors do not cause your PVFS/CFS but make it more likely that PVFS/CFS will be triggered. Of course not all predisposing factors affect everyone, but it is worth looking at them in case they do add something to your understanding of your current problems.

WHAT IS THE OUTLOOK (PROGNOSIS)?

In most cases, PVFS/CFS has a fluctuating course. There may be times when symptoms are not too bad and times when symptoms flare up and become worse (a setback). The outcome is very variable and there is currently no effective method for predicting how the illness will progress or whether it will improve or resolve for any individual person.

Early diagnosis and symptom management have been shown to be hugely helpful in treating this condition. There is also evidence that all of the following can support improvement:

- a balanced approach to rest and activity often termed pacing;
- improving sleep patterns, called sleep hygiene;
- energy management advice to teach you how to make the best use of your energy

The Biopsychosocial Model of Disease

My long-term health conditions are biological in origin, but the impact has been felt physically, psychologically and socially. My long-term health condition can't be treated just through the biological medical model alone...



BIO

- Pathology
- Disease
- Symptoms
- Doctor
- Science treatments
- Tests



PSYCHO

- Depression
- Stress
- Guilt
- Anxiety
- Identity
- Tears



SOCIAL

- Hobbies
- Family
- Isolation
- Money
- Career
- Friends
- Burden

"The medical support keeps me **alive**, but it is the psychological and social support that enables me to **live**"

levels in your day to day life, without making your symptoms worse;

- addressing unhelpful attitudes, such as perfectionism if they are causing increased distress. Cognitive behavioural therapy techniques can help in this area, but are not a cure for PVFS/CFS;
- improving stress management and relaxation techniques;
- reasonable adjustments at work or in education; and
- setting manageable goals to move forward.

The information contained in this article is intended as general guidance and information only and should not be relied upon as a basis for planning individual medical care or as a substitute for specialist medical advice in each individual case. ©Co-Kinetic 2021