

Post-exertional malaise (PEM) 劳累后不适 (PEM)

*This document was translated into **Chinese (Simplified)** by NAATI-credentialed translators, ensuring precise and culturally appropriate messaging. The translation was independently reviewed by NAATI-credentialed linguist, confirming that the final outputs are accurate, polished, and fully aligned with the needs of the target audience.*

Post-exertional malaise (PEM) is a symptom of ME/CFS, and half of people living with long COVID also have it. It is important to understand PEM, especially if symptoms feel worse, either when doing more activity or soon after an activity.

PEM can start right after an activity or up to a few days later. It can last for several days or even longer. Everyone is different^{3,4}.

For people who are very sick with ME/CFS or long COVID, PEM may happen after having a shower, walking to the kitchen, or even rolling over in bed.

If people have PEM, the best thing to do is rest. It may take days, weeks or even longer to feel better^{5,6}.

劳累后不适 (PEM) 是肌痛性脑脊髓炎/慢性疲劳综合征 (ME/CFS) 的核心症状之一，约有一半的长新冠患者也会出现该症状。了解劳累后不适 (PEM) 非常重要，尤其是在活动量增加或在活动结束后不久出现症状加重的情况下。

劳累后不适 (PEM) 可能在活动结束后立即出现，也可能在几天后才出现。其持续时间可能长达数日，甚至更久。个体存在差异^{3,4}。

对于患有严重肌痛性脑脊髓炎/慢性疲劳综合征 (ME/CFS) 或长新冠的患者，劳累后不适 (PEM) 可能在沐浴、步行至厨房，甚至在床上翻身后出现。

如果患者出现劳累后不适 (PEM)，最好的对策是休息。可能需要数天、数周，甚至更长时间才能好转^{5,6}。

Common symptoms of PEM? 劳累后不适 (PEM) 的常见症状

PEM makes symptoms worse, such as:

- Pain
- Sleep
- Brain fog
- Feeling like you may get the flu
- Muscle weakness
- Sensitivity to noise, light or touch.

劳累后不适 (PEM) 会使症状加重，例如：

- 疼痛
- 睡眠问题
- 脑雾
- 类似流感的症状
- 肌无力
- 对噪音、光线或触觉的敏感。

It is helpful to think about PEM like the energy in a battery **将劳累后不适（PEM）设想成电池中的电量会有所帮助**

The body of someone with ME/CFS is like a broken battery that doesn't charge properly and drains quickly.

When the 'body battery' gets low, your body cannot make or use energy normally. Symptoms worsen and movement becomes more challenging.

If you keep being active without resting, your body's energy levels deplete. Like an empty battery on your phone that has turned the colour red.

It is important you rest before your body's battery is red. If activity makes you worse, do NOT push through or follow programs that worsen symptoms; take a rest or do less.

肌痛性脑脊髓炎/慢性疲劳综合症（ME/CFS）患者的身体就像一块损坏的电池，无法正常充电，且电量很快耗尽。

当“身体电池”电量不足时，身体无法正常产生或利用能量。症状加重，行动也变得更加困难。

如果持续活动而不休息，身体的能量会消耗殆尽。就像手机电量耗尽，显示为红色一样。

在身体电量显示为红色之前，休息非常重要。如果活动导致症状加重，请勿咬牙坚持或遵循会加重症状的计划；应休息或减少活动量。

Exercise and PEM **运动与劳累后不适（PEM）**

Researchers have studied PEM by having people exercise as much as possible for two days. People who had PEM did worse on the second day. Their bodies didn't recover normally, and researchers found they had trouble with:

- Making or using energy
- The immune (body protection) system
- Moving blood and oxygen around the body^{3,7}.

研究人员通过让受试者连续两天尽可能多地运动来研究劳累后不适（PEM）。出现劳累后不适（PEM）的人在第二天的表现更差。他们的身体未能正常恢复，研究人员发现他们在以下方面存在问题：

- 产生或利用能量
- 免疫系统（身体防御系统）
- 输送血液和氧气至全身^{3,7}。

What should people do if they experience PEM? **劳累后不适（PEM）的应对措施**

Learn about energy management, and rest more.

了解能量管理，并多加休息。

Remember 切记

- The body battery of someone with ME/CFS or long COVID is different from a healthy person
- People with ME/CFS or long COVID cannot do the same number of activities they could before they got sick
- What you can do in one day will be less than before you got sick
- The amount you can do each day will be different - and every person with ME/CFS and long COVID is different
- You will need to make hard choices about what activities you do, so you don't make your symptoms worse.
- 肌痛性脑脊髓炎/慢性疲劳综合征 (ME/CFS) 或长新冠患者的“身体电池”不同于常人
- 肌痛性脑脊髓炎/慢性疲劳综合征 (ME/CFS) 或长新冠患者无法像患病前那样进行等量的活动
- 一天内能做的事情比患病前要少
- 每天所能完成事情的数量会有所不同——而且每位肌痛性脑脊髓炎/慢性疲劳综合征 (ME/CFS) 和长新冠患者的情况也各不相同
- 需对所要进行的活动进行艰难取舍，以免加重症状。

Reference 参考文献

1. Bateman, L. et al. Myalgic Encephalomyelitis/Chronic Fatigue Syndrome: Essentials of Diagnosis and Management. Mayo Clinic Proceedings vol. 96 Preprint at <https://doi.org/10.1016/j.mayocp.2021.07.004> (2021).
2. Office for National Statistics. Technical article : Updated estimates of the prevalence of post-acute symptoms among people with coronavirus (COVID-19) in the UK : 26 April 2020 to 1 August 2021. Office for National Statistics (2021).
3. Sisto, S. A. et al. PHYSICAL ACTIVITY CHANGES AFTER A TREADMILL EXERCISE TEST IN WOMEN WITH CHRONIC FATIGUE SYNDROME. Med Sci Sports Exerc 30, (1998).
4. Bazelmans, E., Bleijenberg, G., Voeten, M. J. M., Van Der Meer, J. W. M. & Folgering, H. Impact of a maximal exercise test on symptoms and activity in chronic fatigue syndrome. J Psychosom Res 59, (2005).
5. National Institute for Health and Care Excellence. Myalgic Encephalomyelitis (or Encephalopathy)/Chronic Fatigue Syndrome : Diagnosis and Management. NICE Guidelines (2021).
6. Carruthers, B. M. et al. Myalgic encephalomyelitis/chronic fatigue syndrome: Clinical working case definition, diagnostic and treatment protocols. Journal of Chronic Fatigue Syndrome vol. 11 Preprint at https://doi.org/10.1300/J092v11n01_02 (2003).
7. Arroll, M. A., Attree, E. A., O'Leary, J. M. & Dancey, C. P. The delayed fatigue effect in myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS). Fatigue 2, (2014).