Post-exertional malaise (PEM): a short guide for your GP

I have Long COVID or ME/CFS and I experience post-exertional malaise. I've brought this sheet because PEM changes how my care should be managed. Page 2 describes my own pattern.

PEM is a worsening of symptoms after physical, cognitive, emotional or sensory effort that the person used to tolerate. It is the defining feature of ME/CFS and affects roughly a quarter to a half of people with Long COVID.[1–3]

How to recognise it

- **Disproportionate:** can be triggered by something as small as a shower, a phone call or a short walk
- **Delayed:** often starts 12–72 hours later, so the link is missed
- **Prolonged:** recovery takes days or weeks, sometimes with a lasting drop in baseline
- **Multisystem:** fatigue, cognitive problems, pain, flu-like and orthostatic symptoms, poor sleep

PEM is not

- Ordinary tiredness or burnout
- Deconditioning
- Depression, a psychological response or a fear response

Deconditioned patients improve with graded activity; patients with PEM get worse. After exertion, muscle biopsies in Long COVID with PEM show worse mitochondrial function and exercise-induced muscle damage.[4]

Why it changes management

NICE withdrew graded exercise therapy for ME/CFS in 2021.[1] WHO recommends pacing for Long COVID with PEM, and exercise training only when PEM is absent.[5] In a survey of 3,925 patients, graded exercise had the worst net outcome of more than 140 treatments.[6] In a survey of people with ME/CFS, 67% reported a crash they never fully recovered from.[7]

Two-minute screen

1. "What happens in the day or two after you do more than usual, physically or mentally?"
2. "How long does it take to get back to your usual level?"
3. "Do you pay later for things like a shower, shopping or a long conversation?"

A delayed crash lasting more than about a day suggests PEM. FUNCAP can track functional capacity over time.

If PEM is present

- Advise pacing: stay within the energy limit and plan rest. Avoid graded exercise, gym referrals and "build up gradually" advice
- Record "PEM present" in the notes and every referral letter
- Consider practical supports, such as adjustments to work or study and help at home
- Consider checking for POTS and mast cell activation, which often occur alongside

Adaptations that help me

- Let me sit or lie down; a quiet room with low light helps
- A remote or shorter appointment, and a written summary of what we decide
- Stop stand or tilt tests at the first sign of strain
- Expect that a long appointment may cause a crash 1–3 days later

Free clinician guides: Bateman Horne Center Clinical Care Guide (batemanhornecenter.org/clinical-care-guide) · World Physiotherapy information sheet on post-exertional symptom exacerbation (world.physio).

Sources: 1. NICE NG206, 2021. 2. An Y et al. Gen Hosp Psychiatry 2024;91:130–142. 3. Pouliopoulou D et al. Arch Phys Med Rehabil 2025;106:1267–1278. 4. Appelman B et al. Nat Commun 2024;15:17. 5. WHO Clinical management of COVID-19: living guideline, 2022. 6. Eckey M et al. PNAS 2025;122(28):e2426874122. 7. Holtzman CS et al. Diagnostics 2019;9(1):26.

My PEM profile

Name _____ **Date** _____

How long I have had Long COVID or ME/CFS

_____

What triggers my PEM (tick all that apply)

- ☐ Walking or standing
- ☐ Showering, dressing
- ☐ Household tasks
- ☐ Reading, screens, work
- ☐ Conversations, social events
- ☐ Stress or emotional events
- ☐ Noise, light, crowds
- ☐ Travel, appointments
- ☐ Heat

Examples of activities that have caused a crash

_____

_____

_____

Delay before symptoms worsen

- ☐ Same day
- ☐ Next day
- ☐ 2–3 days later
- ☐ It varies

How long a crash usually lasts

- ☐ 1–2 days
- ☐ 3–7 days
- ☐ 1–2 weeks
- ☐ Longer

How severe my crashes are

- ○ Mild
- ○ Moderate
- ○ Severe
- ○ Incapacitating

Symptoms during a crash (tick all that apply)

- ☐ Exhaustion
- ☐ Brain fog
- ☐ Muscle or joint pain
- ☐ Flu-like feeling, sore throat
- ☐ Headache
- ☐ Racing heart, dizziness
- ☐ Sleep disruption
- ☐ Sensitivity to noise or light
- ☐ Gut symptoms

Has a crash ever lowered my baseline for good?

_____

What I can manage on a typical day now (e.g. hours upright, steps, tasks)

_____

_____

What helps me recover

_____

What I need from this appointment

_____

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