

Post Exertional Malaise & Exercise

What is Post Exertional Malaise (PEM)

PEM is where minimal exertion can cause fatigue, pain and cognitive problems. People with fatiguing conditions can experience PEM. Minor physical or mental activity can worsen symptoms of PEM. This can occur from 12-48 hours after activity. PEM is a key symptom of myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) and can be present with Long Covid.

Things to Consider When Exercising with PEM

- Pace yourself: Learn your limits and stay within them.
- Start slowly: Start with activities that feel supportive and encouraging.
- Monitor your symptoms: Keep a diary to identify what activities trigger PEM.
- Be aware of "push and crash" cycles: Pushing yourself too hard can make symptoms worse.

What is a 'PEM Crash'?

PEM can lead to a cycle of "pushing" to do more, followed by "crashing." Triggers can be either mental, emotional or physical. During a PEM crash, people may have a variety of symptoms. These can include difficulty thinking, problems sleeping, sore throat, headaches, feeling dizzy, loss of appetite, pain or severe tiredness. It may take days, weeks, or longer to recover from a crash.

PEM Causing Conditions and Exercise

A modified exercise program can be used for people with mild to moderate ME/CFS and or long COVID, who are not in an active push-crash-cycle and are stable. For people with significant PEM or severe ME/CFS and Long COVID, the focus should be on limiting current activities and using pacing strategies.

What is Anaerobic Threshold?

Anaerobic Threshold is the point at which the body switches from aerobic (using oxygen to produce energy) to anaerobic (not using oxygen to make energy). In PEM the AT is much lower, often just 50-60% that of a healthy person. Using a Heart Rate Monitor (HRM) can help you workout your threshold. Your threshold can be calculated by adding 15 heart beats per minute to your resting heart rate.

For example: if your resting heart rate is 85, your AT would be 100.

Once you know your threshold, you can monitor yourself to discover when you are beyond your threshold.

Heart Rate Monitoring and PEM

A Heart Rate Monitor (HRM) is just one tool that can be used in your toolkit to manage PEM. Using a HRM may not be suitable for everyone.

One way to track your heart rate is to count the beats, using a heart rate monitor, such as Polar FS, FitBit, Garmin, and iWatch.

How it works:

- A heart rate monitor (HRM) measures your heart rate in real time.
- The HRM provides feedback when your heart rate goes above your safe limit.
- You can use this feedback to stop and rest before you experience PEM.

Benefits:

- Helps you identify your safe activity levels.
- Helps you avoid the cycle of overdoing and crashing.
- Helps you increase your activity limits over time.

Helps you reduce the severity and duration of PEM.

What is the Right Exercise for a Person Living with PEM?

- The right exercise depends on multiple factors.
- The challenge is to not overdo it and learn to adjust to less activity than before.
- Gentle exercise programs that focus on building functional strength, rather than aerobic exercise i.e. low-impact exercises such as walking, swimming, aquatic-based exercises, or cycling may be helpful.
- Tailored exercise program by an Exercise Physiologist or Physiotherapist.

Who Can Help?

Physiotherapist can assess, diagnose, and treat conditions that affect movement and pain. **Exercise Physiologist** can assess, plan, and implement exercise programs to help prevent and manage PEM. **Occupational Therapist** can help you learn pacing techniques to do everyday activities.

Resources

<https://www.emerge.org.au/building-your-post-exertional-malaise-pem-toolkit/>

<https://www.emerge.org.au/post-exertional-malaise-pem>

<https://www.cdc.gov/me-cfs/hcp/clinical-care/treating-the-most-disruptive-symptoms-first-and-preventing-worsening-of-symptoms.html>

For further information contact:



info@arthritisact.org.au



1800 011 041
(02) 6251 2055

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