

POTS Exercise Guidance for Exercise Professionals



What is POTS?

Postural Orthostatic Tachycardia Syndrome (POTS) is a multisystem autonomic disorder that can cause significant disability. Exercise professionals play an important role in supporting management.

Benefits of exercise in POTS

Exercise is a widely recommended non-pharmacological intervention for POTS, offering essential physiological and psychological benefits.

- Cardiovascular and circulatory function: Exercise can improve venous return, stroke volume, circulatory stability, and plasma volume.
- Neurological function: Exercise may improve cerebral perfusion and reduce cognitive and orthostatic symptoms.
- Systemic and psychological health: Exercise can support mood regulation, reduce systemic inflammation, and improve overall symptoms and haemodynamics.

Challenges and barriers to exercise in POTS

- Symptom burden: Orthostatic symptoms, fatigue, cerebral hypoperfusion, and exercise intolerance can limit participation in structured exercise.
- Protocol limitations: Although several exercise protocols exist, including the CHOP, Levine/Dallas protocols, Autonomic Disorder Adaptive Physical Therapy, and Autonomic Conditioning Therapy, adherence and completion rates are variable.
- Comorbidities: Standard rehabilitation models may not account for pain or fatigue states, severe orthostatic intolerance or comorbidities such as connective tissue disorders.

Pacing-first approach

Exercise prescription should be individualised and remain within the person's capacity, particularly when starting and progressing a plan.

- Preserve function: Use a flexible, pacing-based model rather than rigid progression to maintain daily function, preserve autonomy, and reduce symptom exacerbation.
- Manage flares: During symptom flares, prioritise maintaining capacity for activities of daily living (ADLs).
- Build gradually: Start with core activation, proximal stability, brief light movement, and energy conservation, then reintroduce ADLs before progressing to structured exercise within symptom threshold.





Structured exercise prescription

Structured exercise aims to improve tolerance and symptoms without worsening post-exertional malaise or fatigue. Progress is often slow and may take weeks to months.

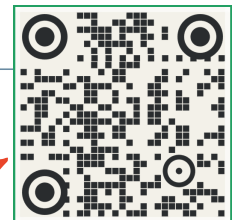
more overleaf →

POTS Exercise Guidance for Exercise Professionals cont'd

The figure below outlines structured exercise prescription considerations.

 Frequency	 Intensity	 Time	 Type
<p>Starting 2–3 times per week to allow for optimal recovery after each session.</p> <p>Ideally allowing at least 1 day in between but not greater than 2 days between sessions.</p>	<p>Exertion at a level greater than rest but avoid post-exertional malaise or hyper-adrenergic response.</p> <p>Suggested starting at perceived exertion of 2/10 & +10–20bpm above resting heart rate. Increase intensity slowly.</p>	<p>Begin at a level within the individual's current capacity as quantified during the initial subjective assessment.</p> <p>May only be a few minutes of exercise or several blocks of a few minutes with short rest breaks.</p>	<p>Starting with supine, then recumbent, moving to seated and finally upright exercise.</p> <p>Some may experience an atypical response to exercise type: e.g. may tolerate walking better than recumbent bike.</p>
<ul style="list-style-type: none"> • Progression should only occur when an individual has tolerated the current level of exercise for at least 3 sessions in a row, while also achieving adequate recovery with minimal post-exertional malaise. • Focus on increasing time first, followed by intensity/type and finally frequency. • Progression should be no greater than +20% for <i>either</i> time or intensity. 			

Lau et al. (2026), Heart, Lung and Circulation



Adjunct strategies for success

To improve the likelihood of a successful exercise intervention, clinicians should ensure the following strategies are implemented concurrently:

- Hydration: Ensure adequate hydration combined with electrolytes (particularly sodium) before, during, and after exercise sessions.
- Compression: Utilise compression garments to actively support venous return.
- Recovery positioning: Elevate the patient's legs post-exercise to optimise venous return and facilitate faster recovery.
- Monitoring return to baseline: Use heart rate variability or resting heart rate alongside symptom reporting to monitor recovery.



To find out more about POTS visit:

