

POWER **breathe**[®] Medic

"makes breathing easier"[™]

**DRUG
FREE**

- Class I Medical Device
- Drug free treatment for dyspnoea
- Ideal for patients with asthma, COPD and heart failure
- Researched and developed by leading UK scientists
- Now available for prescription (PIP Code: 232-1040)



Approved by
the NHS PPA
for prescribing

www.powerbreathe.com



Ever wished that there were something to prescribe patients with dyspnoea?

Well now there is. The POWERbreathe inspiratory muscle trainer is a **drug-free** treatment that helps patients to help themselves.

- Reduce dyspnoea by 36%¹
- Improve quality of life by 21%¹
- Improve exercise tolerance by 28%¹
- Reduce consumption of b2-agonists by up to 79%²
- Reduce primary care consultations by 23%¹

POWERbreathe has no side-effects or drug interactions.

What the POWERbreathe Medic packaging includes:



Packaging



User Manual



Storage Pouch



POWERbreathe includes nose clip

Why does training the inspiratory muscles reduce dyspnoea?

Dyspnoea is a common feature of many disorders. Its source may be respiratory, cardiovascular, neuromuscular, or even psychological. Regardless of its origin, a **common denominator in dyspnoea is inspiratory muscle weakness.**

Muscle weakness increases the effort sensation associated with muscle actions. In the case of the inspiratory muscles, weakness is a major contributor to the perception of dyspnoea^{3,4}.

Unfortunately, the inspiratory muscles exhibit the well documented 'use it or lose it' phenomenon and become detrained (atrophy) in the absence of physical activity. This leads to a downward spiral of inactivity and dyspnoea that is observed in many chronic diseases, as well as in the elderly.

The good news is that the inspiratory muscles can be trained as safely and easily as any other muscle group, yielding improvements in muscle strength, power and endurance^{5,6}, as well as structural and biochemical adaptations^{7,8}.

More importantly, inspiratory muscle training (IMT) reduces dyspnoea during exercise and activities of daily living, as well as improving exercise tolerance and quality of life, particularly in patients with COPD^{1,4,8-13}.

The effect size for exercise tolerance after POWERbreathe training (22%¹) is more than 10 times that for oxitropium bromide^{14,15}, and equivalent to that for pulmonary rehabilitation¹⁵.

Patients with asthma experience improvement in symptoms, quality of life, and impressive reductions in the consumption of medication of up to 79%^{2,16-19}.

Recent data also suggests that POWERbreathe training reduces the use of healthcare resources by patients with COPD, including primary care consultations, by 23%¹.

All in all, POWERbreathe can make a significant contribution to **reducing the healthcare costs associated with respiratory disease.**

“Improves exercise tolerance and quality of life.”



How POWERbreathe works

POWERbreathe applies the tried and trusted principles of resistance (weight) training to the inspiratory muscles, and can be thought of as 'dumbbells for the diaphragm'. When muscles are overloaded regularly for a period of a few weeks, they adapt, becoming stronger and more resistant to fatigue.

Athletes routinely resistance train their locomotor muscles independently of locomotion to obtain increased benefits; POWERbreathe makes this possible for the inspiratory muscles. Training in this way means that the intensity can be high, and even patients who cannot walk can benefit from POWERbreathe training. This means that dyspnoea can be treated in patients with severe disability.

Inspiratory muscle training has been applied in specialist units for many years. Now, thanks to new 'pressure threshold' loading technology, the evidence base for inspiratory muscle training from randomised controlled trials (RCTs) has achieved the required quality, and [POWERbreathe is now available for prescription](#).



POWERbreathe is easy and quick to use

One of POWERbreathe's greatest strengths is that it is so easy and quick to use, with a training regimen that has been validated in a large number of RCTs⁴. Most patients can use POWERbreathe straight out of the box, but even those needing a little more support can become competent in just a few minutes.

Because everyone is different, POWERbreathe's loading mechanism has a wide range of settings and has provision for training to progress as the inspiratory muscles become stronger. POWERbreathe is supplied with a simple, but comprehensive user manual and online support (www.powerbreathe.com).

As with any intervention, patients will only be motivated to use POWERbreathe if it is not time consuming, and they can perceive benefits quickly.

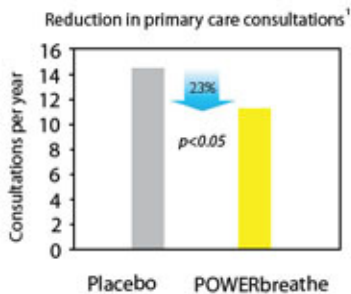
- POWERbreathe training requires just **15 minutes, twice daily** for the first 12 weeks; thereafter, maintenance training is just three times per week⁴.
- POWERbreathe training yields improvements in dyspnoea within the first few days of use, and measurable **improvements in exercise tolerance in just three weeks**¹⁹.



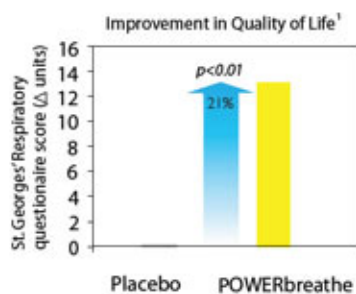
Key facts and figures

COPD

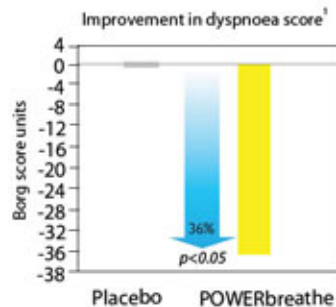
Reduce primary care consultations by 23%¹



Improve quality of life by 21%¹

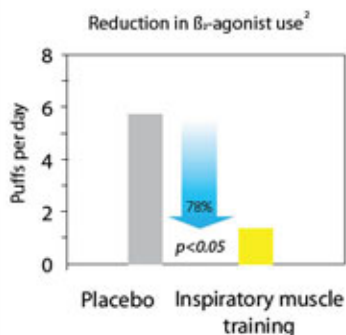


Improve dyspnoea by 36%¹



Asthma

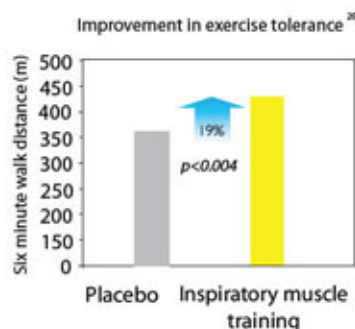
Reduce β_2 -agonists consumption by up to 79%²



- FEV¹ improved by 14%² ($p < 0.005$)
- Absence from school/work reduced by ~95%² ($p < 0.05$)
- Emergency hospitalisations reduced by ~75%² ($p < 0.05$)

Heart Failure

Improve exercise tolerance by 19%²⁰ and quality of life by 16%²⁰



Other conditions where POWERbreathe may be helpful:

- Elderly people with non-specific dyspnoea²¹
- Cancer²²
- Cystic fibrosis²³
- Neuromuscular disease²⁴
- Parkinson's disease²⁵
- Prior-polio²⁶
- Spinal cord injury²⁷
- Sleep apnoea and snoring²⁸

Key messages

- POWERbreathe is suitable for treating dyspnoea in a wide range of patients, including those with severe exercise intolerance and cardiovascular risk factors
- POWERbreathe has no side effects or drug interactions
- POWERbreathe is 10 times more effective than oxitropium bromide for improving exercise tolerance and quality of life in patients with COPD
- POWERbreathe reduces primary care consultations of COPD patients by 23%
- POWERbreathe reduces use of β_2 -agonists by an average of 51% in patients with asthma

Contraindications

- Inspiratory muscle training is NOT recommended for patients with a history of spontaneous pneumothorax.
- Inspiratory muscle training is only recommended for patients with a history of traumatic pneumothorax after complete recovery.
- Inspiratory muscle training is NOT suitable for asthma patients who have low symptom perception and who suffer from frequent, severe exacerbations.
- Inspiratory muscle training is NOT suitable for anyone who has recently experienced a perforated ear drum.
- Anyone who is under the age of 16 should only use POWERbreathe with supervision from an adult.

References

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**POWER
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"makes breathing easier"

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Some patients may be unable or unwilling to use a mouthpiece. POWERbreathe is also available with a mask interface for such patients. POWERbreathe is not a toy. This product is designed to be used for inspiratory muscle training/breathing exercises only. Any other use is not recommended. This product is not intended to diagnose, cure or prevent any disease.

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PIP Code: 232-1040
NHS Drug tariff listing
Part IXA - Appliances
Generic Description:
'Inspiratory Pressure threshold loading device'
Dist in the UK via major pharmacy wholesalers.



**Class 1
Medical Device**



**Design Council
Award Winner**