

Product Description – Content

Do not use the POWERbreathe Plus if you are suffering from a ruptured eardrum or any other condition of the ear

POWERbreathe HMT/IMT is clinically proven to improve symptoms, exercise tolerance and quality of life in major debilitating conditions such as COPD, Asthma and Heart Failure. If you or your doctor would like more information on the clinical effectiveness of POWERbreathe devices, please visit our website (www.powerbreathe.com). If you have any more questions about POWERbreathe, please contact the POWERbreathe distributor in your country.

Do not use the POWERbreathe Plus if you have suffered from or a likely to suffer from Costochondritis

Please remember: If in doubt, consult your specialist respiratory health doctor.

Precautions

Contact Information

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POWERbreathe - Respiratory muscle training (RMT) / Inspiratory muscle training (IMT) is drug free; suitable for almost anyone and should cause no harmful side effects when used properly. If you have any doubts about the POWERbreathe Plus device's suitability or you have a medical condition, please consult your doctor.

Please read the following - Precautions and CONTRAINDICATIONS information, to ensure that you use the POWERbreathe Plus device safely and appropriately.

PRECAUTIONS:

- Do not make changes to any prescribed medication or prescribed treatment
- Do not use your POWERbreathe Plus until symptoms have disappeared. If in doubt, consult your doctor.
- Additionally, the following conditions have been highlighted to require guidance from your medical professional, before use of the POWERbreathe Plus device:
 - A history of spontaneous pneumothorax (a collapsed lung that was not due to traumatic injury e.g. broken rib), as it may lead to a recurrence of the condition. Following a traumatic pneumothorax and/or broken rib, the POWERbreathe Plus should not be used prior to full recovery.
 - Pulmonary hypertension
 - Large bulgiae on chest x-ray
 - Marked osteoporosis with history of rib fractures
 - Desaturation during or following IMT (<94%)
 - If you have undergone recent abdominal surgery or have an abdominal hernia

CONTRAINDICATIONS: Respiratory muscle training (RMT) / Inspiratory muscle training (IMT), such as training with POWERbreathe Plus, is not recommended for patients with certain conditions including the following:

- POWERbreathe Plus is not suitable for asthma patients who have low symptom perception and suffer from frequent, severe respiratory tract infection, we advise that you
- If you are suffering from a cold, sinusitis or your doctor.
- If symptoms persist, please consult your doctor.

Precautions

Warranty (Please retain this information for your records)

* This warranty gives the purchaser specific legal rights. The purchaser may also have other statutory rights. POWERbreathe International Ltd. hereby warrants to the original purchaser whose name shall be duly registered with it that the product sold by it is free from defects in the material and workmanship. The obligations of POWERbreathe International Ltd. under this warranty are limited to the repair and replacement of such part or parts of the unit as shall be found upon inspection to be defective in material or workmanship. Misuse, abuse or accidents, negligence of the precautions, improper maintenance or commercial use, cracked or broken cases is not covered under this warranty. During the two year warranty period, the product will be either repaired or replaced (at our option without charge). Warranty does not cover damage or consequential damage caused by service not authorised by POWERbreathe International Ltd.

The warranties contained herein are expressly in lieu of any other warranties including implied warranty of merchantability and / or fit for purpose.

Disclaimer

POWERbreathe devices are not toys. This product is designed to be used for breathing exercise only. Any other use is not recommended.

Always seek the advice of your doctor or other health provider with any questions you may have regarding a medical condition. This product is not intended to diagnose, cure or prevent any disease. Individual results may vary. No claims are made or implied in the use or results by the use of the equipment herein.

Always read the user manual before use. The material in this manual is for information purposes only.

POWERbreathe devices contain small parts and are not suitable for children under 7 years.

Note: This product is sealed to maintain hygiene and cannot be returned if the seal is broken.

POWERbreathe International Ltd makes no representations or warranties with respect to this manual or with respect to the products described herein. POWERbreathe International Ltd shall not be liable for any damages, direct, indirect or incidental, consequential or special, arising out of or related to the misuse or deviations from the intended use of this material or the products described herein.

POWERbreathe is a patented and design copyright protected product. All rights reserved. Specifications may change without notice due to manufacturer's continuous programme of development.

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To Activate Your Warranty
 Please ensure that you register the purchase of your POWERbreathe Plus by visiting www.powerbreathe.com
 Thank You.

The laboratory-proven POWERbreathe training regime of 30 breaths, twice a day, typically takes only a few minutes. To make sure you get the most from your POWERbreathe, please read this instruction booklet carefully and take time to get used to your POWERbreathe.

You may be aware of certain breathing techniques, such as those used in yoga, which promote the use of nasal breathing. Although training with POWERbreathe requires you to breathe through your mouth as opposed to your nose, it follows similar principles and will compliment these breathing techniques.

Anyone who is under the age of 16 should only use POWERbreathe RMT / IMT with supervision from an adult. The POWERbreathe Plus contains small parts and is not suitable for children under 7 years.

Whist training with the POWERbreathe Plus you should feel resistance when inhaling but it should not be painful. If you should feel pain whilst using the POWERbreathe Plus, stop immediately and consult your doctor.

Some users may experience slight ear discomfort when training with POWERbreathe Plus, especially if they are recovering from a cold. This is caused by inadequate equalisation of pressure between the mouth and ears. If symptoms persist, please consult your doctor.

Thank you for purchasing POWERbreathe. Used properly, you should begin to enjoy the benefits of using your POWERbreathe in just a few weeks. POWERbreathe will make your breathing muscles stronger, leading to reduced breathlessness during exercise or activity. This applies as much to committed athletes as it does to individuals with respiratory illnesses, such as COPD (chronic obstructive pulmonary disease) and asthma.

POWERbreathe uses a technique known as resistance training. This strengthens the breathing muscles by making them work harder, in much the same way as you might use weights to increase the strength of your arm muscles. When training with POWERbreathe, you will notice that you have to work harder to breathe in. This is the effect of resistance training acting on the muscles used to inhale – primarily the diaphragm and rib cage muscles. When breathing out, there is no resistance and you can breathe out normally, allowing the chest and breathing muscles to relax, naturally pushing the air from your lungs.

Dear customer,

Introduction

Technical Specifications

- Mouthpiece material: Thermoplastic elastomers (TPE)
- Clear handle cover: Polycarbonate
- Soft touch adjuster grip: ABS with Santoprene overmoulding
- Flap valve: Silicone 60
- O-ring: Nitrile rubber
- Nose-clip rubber: Silicone 40
- Nose-clip bridge: Nylon
- All other components: ABS (Acrylonitrile Butadiene Styrene)

Load Selection Range

Precise load settings may vary due to: (1) the analogue nature of the calibrated spring tensioner and the precision with which the load is selected; (2) a small effect of inspiratory flow rate upon spring compression such that high inspiratory flow rates lead to greater spring compression, and a small increase in load (Caine & McConnell, 2000). This effect is common to all spring loaded devices, and its size is magnified by increasing spring range (it is larger in a spring with a maximum range of 90cmH2O compared with one with half this range), it is also greater at lower absolute load settings (Caine & McConnell, 2000).

Caine MP & McConnell AK. (2000). Development and evaluation of a pressure threshold inspiratory muscle trainer for use in the context of sports performance. *Journal of Sports Engineering* 3, 149-159.

Model	Load (- cmH2O) @ 11.sec-1										
	Load Setting										
	0	1	2	3	4	5	6	7	8	9	10
LR	17	25	33	41	49	58	66	74	82	90	98
MR	23	39	55	72	88	104	121	137	153	170	186
HR	29	53	78	102	127	151	176	200	225	249	274

LR LIGHT RESISTANCE **MR** MEDIUM RESISTANCE **HR** HEAVY RESISTANCE

Key to Resistance Levels
 Light Resistance: Introductory level for new users
 Medium Resistance: For those who are moderate to very fit
 Heavy Resistance: Only for those who have reached the maximum loading on a medium resistance model

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POWER PLUS+ breathe

User Manual



Getting Started With POWERbreathe

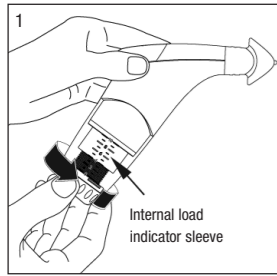


Diagram 1: Adjusting the POWERbreathe

Remove the POWERbreathe Plus and nose-clip from the packaging. Holding the POWERbreathe Plus upright, practise adjusting the training load: Rotate the load adjustment knob clockwise to increase the training load; rotate the load adjustment knob anticlockwise to reduce the training load. Notice that a numbered scale is visible on the side of the POWERbreathe Plus. As the load adjustment knob is rotated, the internal load-indicator sleeve will move up or down, indicating your current training load on this scale.

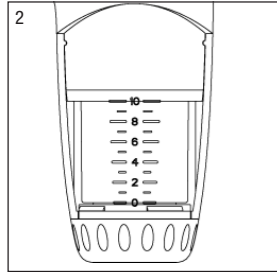


Diagram 2: Load 0

Now set the POWERbreathe Plus to load 0. At this load the base of the internal white sleeve should be aligned with the lowest load on the scale, as shown in the diagram. **Note: Do not attempt to reduce the load below 0 as this may damage the adjustment thread.**

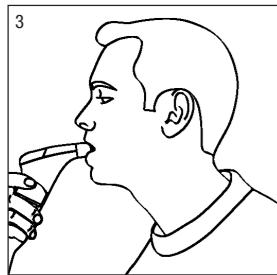


Diagram 3: Placing the POWERbreathe Plus in your mouth

Make sure you are sitting or standing upright and feel relaxed. Holding the POWERbreathe Plus by the handle, place the mouthpiece in your mouth so that your lips cover the outer shield to make a seal, and the mouthpiece bite blocks are gripped between your upper and lower teeth.

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POWERbreathe Training

Note: The following training guidelines are quite strenuous and we only recommend them for those users who are accustomed to hard physical activity.

Training with POWERbreathe Plus is like any other kind of training – you get out what you put in, and if you stop doing it, the benefits will gradually disappear. If you are using POWERbreathe Plus to enhance your performance, you may want to push yourself a little harder, as well as ensuring that you do your POWERbreathe Plus training regularly.

When training for performance with POWERbreathe Plus, use the same “30 breaths, twice a day” training programme, but be aware that you will only achieve optimum training benefits when you train hard. In other words, breathe as deeply and as forcefully as you possibly can and aim to reach “failure” within 30 breaths. “Failure” means you are unable to complete a full breath by the time you reach 30 breaths. If you find you can manage more than 30 breaths with ease, increase your training load by a quarter of a turn. This may mean that you can achieve fewer than 30 breaths next session, but stick at it – within a few days you will be back up to 30 again. In this way you are always training at the optimum load.

The more quickly you can complete 30 breaths, the greater will be the training effect on your inspiratory muscles. For optimal training benefits, complete the 30 breaths as quickly as you can without becoming dizzy. Remember, if you start to feel dizzy, just pause at the end of the breath and wait until you feel the urge to breathe again. Do not be tempted to train more than twice a day, or for more than 30 breaths in one session. Remember, recovery is an important part of the training process and your inspiratory muscles need time to rest and adapt between POWERbreathe Plus training sessions.

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Getting Started With POWERbreathe

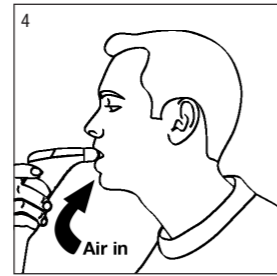


Diagram 4: Inhaling through the POWERbreathe Plus.

Breathe out as far you can then take a fast, forceful breath in through the mouth. Take in as much air as you can, as quickly as you can, straightening your back and expanding your chest.



Diagram 5: Exhaling through the POWERbreathe Plus.

Now breathe out slowly and passively through your mouth until your lungs are empty, letting the muscles in your chest and shoulders relax. Pause until you feel the urge to breathe again. Repeat this exercise until you feel confident about breathing through the POWERbreathe Plus. **Note: do not pant – if you start to feel light-headed, slow down and pause at the end of your breath out.**

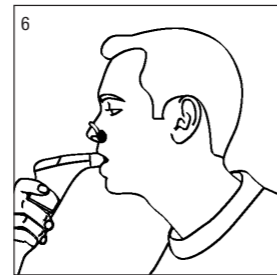


Diagram 6: Using the nose-clip.

Now put the nose-clip on so that it pushes your nostrils together, as shown in the diagram. Continue to practise taking a forceful breath in then breathing out slowly and fully. **Note: the nose-clip will help you to breathe through your mouth rather than your nose. However, it is not essential and some people find it more comfortable to train without the nose-clip.**

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POWERbreathe For Warming Up Before Exercise

Research has shown that a normal pre-exercise warm-up routine neglects to warm-up the breathing muscles, leading to excessive breathlessness during the start of exercise. POWERbreathe Plus can be used to specifically warm-up these muscles prior to exercise, using a reduced load setting.

In order to do this, you first need to determine your current training setting by checking the position of the training load indicator sleeve on the numbered scale. For warm up exercises the POWERbreathe Plus resistance should be set to approximately 80% of your normal training resistance. For guidance use the following table to calculate your ideal warm up load from your current training load.

Current Training Load	Ideal Warm-up Load
10	8
9	7
8	6.5
7	5.5
6	5
5	4
4	3
3	2.5
2	1.5
1	1
0	0

Once your POWERbreathe Plus is set at the appropriate warm-up load, perform two sets of 30 breaths with two minutes rest between each set. Try to breathe in fully and forcefully. This routine should be completed within five minutes of starting your workout, training or competition.

(NOTE: one complete turn of the load adjuster moves the resistance up or down by one load.)

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Getting Started With POWERbreathe

Finding your correct training load

Try to complete 30 breaths at load 0 using the breathing method described. Don't worry if you cannot manage to complete 30 breaths in one attempt, straight away. Everyone is different and it can take time to build up your breathing muscles.

- If you can complete 30 breaths with ease, turn the load adjustment knob clockwise to increase the training load, then repeat the exercises.

- In this way, by gradually increasing the load until you can only just complete 30 breaths, you will find the best training load for you.

- Once you have found the correct load for yourself, aim to complete 30 breaths, twice a day – once in the morning and once in the evening.

- Over time you will find that it becomes easy to complete 30 breaths. When this happens, increase the training load by roughly a quarter turn, so that you are only just able to complete 30 breaths. **Note: the scale is for guidance only – do not feel that you have to move up one entire increment each time you increase your training load.**

Maintaining your breathing

After four to six weeks your breathing muscles should have improved substantially and you should feel less breathless during activity. At this stage you will not need to use your POWERbreathe Plus every day to maintain your improved breathing. Using your POWERbreathe Plus twice every other day will be sufficient to continue to enjoy reduced breathlessness and improved exercise performance.

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Care and Maintenance

Precautions

POWERbreathe Plus is designed to be as robust and durable as possible. With a little care, your POWERbreathe Plus should last many years. Please read the following precautions to ensure that your POWERbreathe Plus remains in top condition:

- Do not attempt to reduce the load adjustment below load 0 – this is the minimum setting and attempting to unscrew the mechanism further may damage the adjustment thread.
- Do not attempt to separate the upper and lower portions of the main body of the device – these should remain permanently joined.
- Please store your POWERbreathe Plus in the storage pouch provided or a suitable clean container. Always make sure that your POWERbreathe Plus is dry before storage

Cleaning

Your POWERbreathe will be exposed to saliva during use and we recommend that you clean it frequently to keep it in good working order.

A few times a week, soak your POWERbreathe in warm water for about ten minutes and then wipe it with a soft cloth under warm, running water, paying particular attention to the mouthpiece. Shake off excess water and leave on a clean towel to dry.

Once a week perform the same procedure but soak your POWERbreathe in a mild cleansing or approved cleaning solution instead of water. The cleansing solution used must be intended for use on equipment that comes into contact with the mouth, such as that used for babies' bottles. POWERbreathe cleansing tablets are available from retailers nationwide or visit www.powerbreathe.com for further details.

To keep your POWERbreathe in top condition, after cleansing hold it upside down under a running tap so that water can run through the device. Shake off excess water and leave on a clean towel to dry.

If further cleaning is necessary the POWERbreathe Plus can be disassembled into its component parts as demonstrated in diagram on Page 11. If disassembling the POWERbreathe Plus be careful not to lose any components.

Note: the POWERbreathe Plus is not suitable for dishwasher use.

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POWERbreathe Training

POWERbreathe Plus has an adjustable training load that starts at a load that everyone should be able to manage. If you have a respiratory condition, or are unaccustomed to physical training or exercise, you may find the lowest setting very challenging. If this is the case, we recommend that you leave the training load at 0 for the first week. To begin with, concentrate on breathing in deeply and forcefully, and breathing out slowly and gently. Try to complete 30 breaths, twice a day. If you cannot manage to complete 30 breaths in one attempt, rest for a minute and start again, until you have reached a total of 30 breaths.

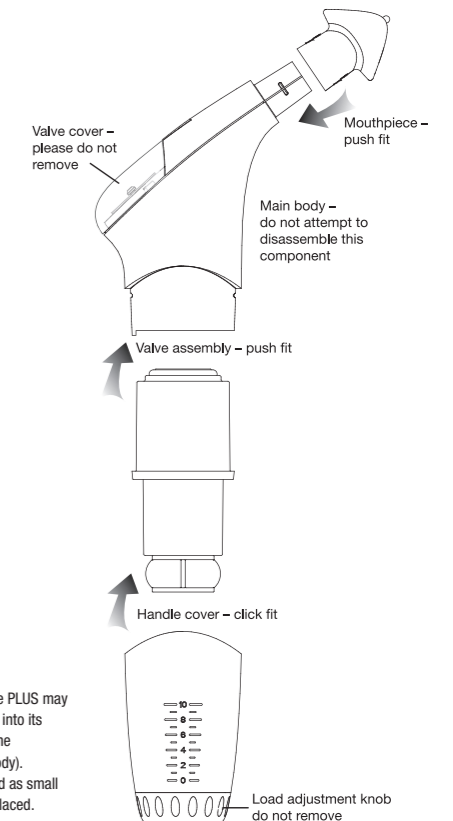
Once you are easily able to complete more than 30 breaths without stopping, increase the training load by a quarter turn. This increase may mean that next session you cannot complete 30 breaths without stopping. Continue to train at this load, and soon you should be able to complete 30 breaths in one go. Each time you find you are easily able to complete more than 30 breaths without stopping, increase the training load again. Aim to increase the training load by a quarter turn each week.

When you begin training with POWERbreathe Plus, you may find that you can easily complete more than 30 breaths at load 0. If this is the case, increase the training load by one-quarter turn each day. You will soon reach a load that is challenging and will find it difficult to complete 30 breaths in one attempt. Once you reach this load, only increase the training load further once you are easily able to complete more than 30 breaths again.

Remember, whether you are a top athlete, or you just want to get to the top of the stairs without getting out of breath, POWERbreathe Plus needs to be used regularly. The more effort you invest in your POWERbreathe Plus training, the greater the benefits you will enjoy. However, do not be tempted to undertake more than two sets of 30 breaths each day, or more than 30 breaths in one session. Instead concentrate on achieving the most challenging load for 30 breaths twice a day. Remember, recovery is an important part of the training process and your inspiratory muscles need time to rest and adapt between training sessions.

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POWERbreathe PLUS Assembly



Note: the POWERbreathe PLUS may be disassembled further into its component parts (with the exception of the main body). This is not recommended as small parts can easily be misplaced.

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