

Getting Started With POWERbreathe

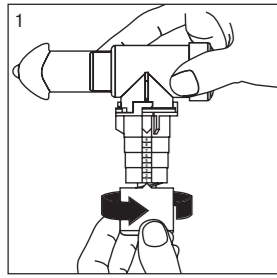


Diagram 1: Adjusting the POWERbreathe Classic
Remove the Classic device, handle cover and nose-clip from the packaging. Holding the Classic device upright, practise adjusting the training load: rotate the load adjustment knob clockwise to increase the training load; rotate the load adjustment knob anticlockwise to reduce the training load. Notice that a numbered scale is visible on the side of the Classic device, giving you guidance when selecting a training load. **Note: do not over tighten the adjustment knob beyond load 9 as this may cause damage to the mechanism.**

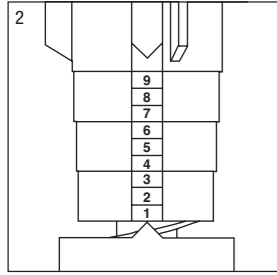


Diagram 2: Load 1
Now set the Classic device to load 1. At this load, the tip of the arrow on the load adjustment knob should be aligned with the lower edge of the scale, as shown in the diagram.

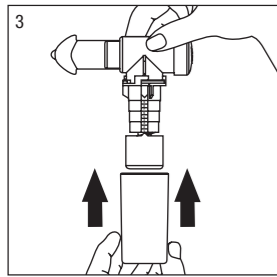


Diagram 3: Replacing the handle cover
Push the handle cover onto the Classic device, covering the scale and load adjustment knob. **Note: always ensure the handle cover is in position before breathing through the Classic device, as this allows the mechanism to function correctly.**

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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 Classic 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 Classic to enhance your performance, you may want to push yourself a little harder, as well as ensuring that you do your POWERbreathe training regularly.

When training for performance with the Classic device, 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 breath 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 training sessions.

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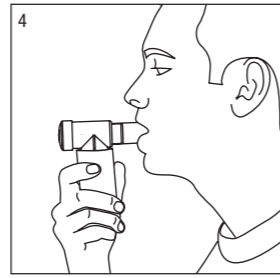


Diagram 4: Placing the Classic device in your mouth
Make sure you are sitting or standing upright and feel relaxed.

Holding the Classic device by the handle cover, place the mouthpiece in your mouth so that your lips cover the outer shield to make a seal.

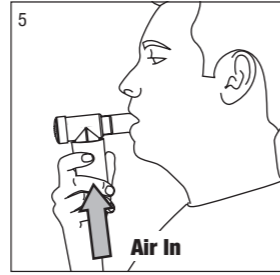


Diagram 5: Inhaling through the Classic device
Breathe out as far as you can then take a fast, forceful breath in through the mouth. Take in as much air as you can, as quickly as you can, straightening your back and expanding your chest.

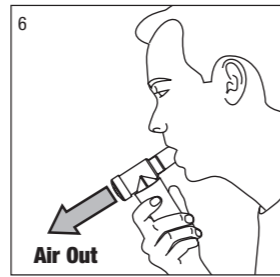


Diagram 6: Exhaling through the Classic device
Now breathe out slowly and passively through your mouth until your lungs are empty, letting the muscles in your chest and shoulders relax. Pause until you feel the urge to breathe again.

Repeat this exercise until you feel confident about breathing through the Classic device. **Note: do not pant - if you start to feel light-headed, slow down and pause at the end of your breath out.**

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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 Classic 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 removing the handle cover and checking your training load on the numbered scale. For warm up exercises the 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
9	7
8	6
7	5.5
6	4.5
5	4
4	3
3	2
2	1.5
1	1

Once your Classic device 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

Using the nose-clip

Now put the nose-clip on so that it pushes your nostrils together. 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.**

Finding your correct training load

Try to complete 30 breaths at load 1 using the breathing method described. Don't worry if you cannot manage to complete 30 breaths straight away. Everyone is different and it can take time to build up your breathing muscles.

- If you can complete 30 breaths with ease, remove the handle cover and turn the load adjustment knob clockwise to increase the training load. Replace the handle cover and 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 Classic device every day to maintain your improved breathing. Using your Classic device twice every other day will be sufficient to continue to enjoy a better lifestyle and improved performance.

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Care and Maintenance

Precautions

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

- Do not over-tighten the load adjuster knob: the maximum load is when the arrow on the adjuster covers the number 9 on the scale.
- Do not over-loosen the adjuster knob: when loosening the adjuster, try not to go lower than load 1 (described earlier) as this will unscrew the adjuster from the threaded section. If this happens, simply screw the adjuster back onto the threaded section, ensuring that the spring is in the correct position.

- Do not remove the end cap. This may allow the one-way flap valve to come loose.

- Please store your Classic device in the pouch provided or a suitable clean container. Always make sure that your Classic device is dry before storage.

Cleaning

Your Classic device 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 Classic device 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 Classic device 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.

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.

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POWERbreathe Training

POWERbreathe Classic 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 1 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 the Classic device, you may find that you can easily complete more than 30 breaths at load 1. 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 Classic needs to be used regularly. The more effort you invest in your POWERbreathe 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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Technical Specifications

Mouthpiece material:PVC, not made with natural rubber latex or phthalates
Flap valve material:Silicone rubber
O-ring material:Nitrile rubber
Spring:Stainless steel
Tensioner:Reinforced nylon 66
Handle Cover, Main Body, Lower Chamber, End Cap, Load Adjuster and Nose-clip:Polypropylene

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 (- cmH ₂ O)								
	Load Setting								
	1	2	3	4	5	6	7	8	9
LR	10	20	30	40	50	60	70	80	90
MR	10	30	50	70	90	110	130	150	170
HR	10	40	70	100	130	160	190	220	250

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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