

tyco

Healthcare

RESPIFLO™

Incentive Deep Breathing Exercisers



a vital part of your world

KENDALL

Why respiratory therapy?



Risk of atelectasis

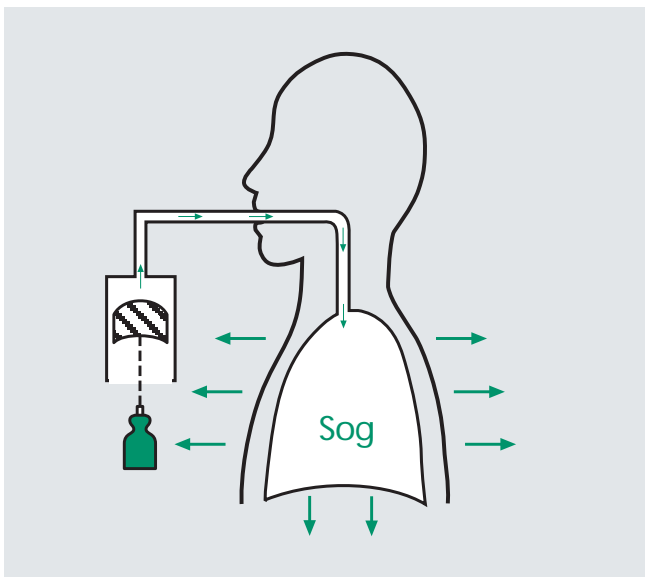
In the immediate postoperative period following procedures on the upper abdomen and chest areas, a significant decrease in all pulmonary volumes may be detected. The expiratory and inspiratory reserve volumes may be minimal.

The restriction of the respiratory mechanism in the patients concerned induces flat, high-frequency respiration.

This may result in atelectasis, infections and shortness of breath.

Purpose of postoperative respiratory therapy

1. Atelectasis prevention and treatment
2. Increase in transpulmonary pressure, thus an increase in the pulmonary volume.
3. Normalisation of reduced pulmonary volume and ventilation of the alveoli shut off from the ventilator by means of an *incentive spirometer**.



*a device used to measure inspiratory depth

Risk factors for respiratory complications

- Chest and upper abdominal procedures
- Secondary bronchopulmonary disorders
- Old age
- History of smoking
- Excess weight
- Long-term disease, immobilisation

Sustained maximal inspiration to increase pulmonary volumes

Incentive spirometers help patients achieve slow, continuous, maximum respiration by means of intermittent deep breathing. The driving force in maximum pulmonary expansion and in keeping the alveoli open is the transpulmonary pressure, which only reaches its maximal values when the glottis is open. With a post-inspiratory pause (continuation of inspiratory effort without increasing volume), optimal respiratory air distribution is achieved. Expiration is performed passively, without any exertion on the expiratory muscles, outside the device. There are no contraindications and complications, as a natural, physiological breathing pattern is emulated.

Studies have demonstrated that pulmonary volumes can be increased with SMI therapy. It is assumed that the reopened bronchioli and recruited alveoli remain open for approximately one hour.

Therapy:

- 10 respiratory exercises per hour
- regular training

Flow-oriented SMI training

The **RESPIFLO FS** was developed on the basis of SMI technology. The patient breathes in slowly and deeply, raising one or, depending on inspiratory capacity, two balls. The third ball is used to prevent an excessively high inspiratory flow. With the correct breathing technique, the patient keeps the balls in the air in the first one or two chambers, but should not raise the third ball.

Successful therapy concept

Due to the clear signs of success and the "toy-like" nature associated with **RESPIFLO FS**, patients are motivated to perform *voluntary training*. Studies have demonstrated that the patients who know about the benefit of their respiratory therapy and may be in some pain are prepared to carry out suitable respiratory training.

The introduction to the use of the device is performed by a practitioner even before the operation whenever possible, in order to give the patient the incentive to recover his/her preoperative inspiratory capacity.

Benefits:

- simple to learn due to simple operation
- high compliance
- relief of nursing staff and practitioners



Volume-oriented and flow-controlled,

RESPIFLO VS is a volume-oriented respiratory training device. This means that the target value to be modified, i.e. the pulmonary volume, can be read directly on the device by the practitioner and the patient. The target to be achieved is set on a daily basis with the adjustable standard display. This is used for self-checking and motivational purposes by the patient and for therapy monitoring purposes by the practitioner.

The additional flow control helps prevent the patient from breathing in too quickly with high flows and induces slow, regular inspiration. RESPIFLO VS is very compact and easy to handle due to the proportional inspiratory capacity measurement.



Effective respiratory therapy

RESPIFLO VS is available in three models: **RESPIFLO VS2500** is the ideal *respiratory training device* for patients with a significantly restricted pulmonary capacity. As a paediatric respiratory training device with colourful applied pictures, it offers children a playful and greater incentive for use.

RESPIFLO VS 5000 is used to achieve higher inspiratory volumes. A label on the bottom side of all devices is provided to record patient data.

The practical handle and the compact design enable easier use for patients in bed.

All respiratory training devices are single-patient products

Your order:



RESPIFLO FS Respiratory flow training device

Model	Flow	Additional insp. respiratory work (L/s)	Qty/Box (Joules/L)	REF
RESPIFLO FS	0.6 to 0.9	0.4 to 0.8	12	8884-717395

Basic model, ready for use. Weight 140 g



RESPIFLO VS Respiratory training device

Model	Volume (L)	Flow Indicator	Additional insp. respiratory work (Joules/L)	Qty/Box	REF
RESPIFLO VS 2500	0.25–2.5	minimum maximum	0.1 0.4	12	8884-719041
RESPIFLO VS 2500 paediatric	0.25–2.5	minimum maximum	0.1 0.4	12	8884-719017
RESPIFLO VS 5000	0.25–2.5	minimum maximum	0.3 0.8	12	8884-719033

Basic model, ready for use. Weight 230 g

References

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