

#### **Treatment**

Treatment is based on the assessment.

Remember You can do no harm by teaching normal breathing.

## **Explanation of the findings of the Assessment (see treatment map)**

#### Advice on:

- Breathing Re-training
- Management of any Musculo-skeletal Issues
- Breathing while Exercising
- > Recognising triggers
- Management of Lifestyle and Tension
- Management of Symptoms and Acute Episodes.

### **Explanation**

Give reassurance about the symptoms and advice on how they can learn to manage them. Include an explanation of their breathing pattern and how they differ from normal, include the effects of inefficient breathing. Discuss the Fight or Flight Reflex and how the cycle of anxiety and symptoms can develop. Explain the causes and effects of Hypocapnia (if appropriate).

Try to establish what might be their current triggers, what might have caused their problems and explain how acute can become chronic and habitual. For COVID recovery patients use their treatment management to explain their problems i.e. the effects of long-term ventilation, NG tubes, positioning in ICU.

## **Breathing Retraining**

Aim is for the patient to understand and achieve efficient breathing. May not be able to do all components of breathing. You may need to compromise one component of breathing to achieve another. Is it better to do 2-3 good breaths or concentrate on one aspect e.g. nose breathing, diaphragm breathing or slowing down their breathing. Plan this from the assessment.



### **Nasal Breathing**

Educate about it being an 'air-conditioning unit', cover effects of Nitric Oxide. Nasal breathing promotes diaphragmatic activity. It should be quiet, with a gentle flow.

Nasal Clearing techniques- Buteyko, including mouth taping, nasal douching (Neilmed), alternate nostril breathing (yoga), acupressure points.

### **Diaphragmatic Breathing**

Educate about anatomy of lungs and diaphragm, tummy breathing and upper chest breathing, the muscles of breathing. Upper accessory are fast fatiguing.

Teach diaphragmatic breathing- in supine lying, progress to sitting and standing. Feel lateral and anterior movement, inhibit accessory muscle movement- pressure on upper chest, try the 'beach pose.'

Consider Thoracic mobility and diaphragm release techniques.

Decrease or avoid hyperinflation by trying to ensure the breath out is to Expiratory Reserve Volume.

#### **Lung Volumes**

Remember Minute volume should be 5-6 litres per minute - long and slow or short and fast. Work to decrease minute volume by aiming for small, quiet abdominal breaths - should only be able to feel the air passing into their nose. Avoid dynamic hyperventilation and breath stacking.

#### **Breathing Rate**

Inspiratory/Expiratory Ratio: Externally paced - count, CDs, find a pace that suits although challenges - for example 2 sec in, 2 sec out and 1 sec pause (5 sec cycles = 12 breaths per min.) Lengthen pause to decrease respiratory rate. Encourage them to rest in the pause and help relaxation (promotion of parasympathetic NS)



### Posture/MSK

Posture - poking chin, tight trapezius, scalenes.

Tight structures that are hindering good breathing

or vice versa. Look for tight abdominals.

Stiff ribs and thoracic spine.

Think Core Stability - Diaphragm (top),

Pelvic Floor (bottom), Transversus Abdominus (front),

Multifidus (back).



## **Breathing and Exercise**

Individualise the breathing pattern- important to get it right in resting first, ensure diaphragm is working. Try theraband around lower ribs to aid feedback during standing/walking. Don't try to control breathing too much during exercise. Help them think about where the air needs to go: breathe into lower ribs/scapula. Warm up and cool down important with appropriate breathing patterns. Use the nose to control depending on fitness levels. Reduce anxiety about getting breathless. Normalise breathing during exercise. Not everyone can control/ count breathing while exercising. Remember that it is normal to mouth breath while exercising. Pilates - engage diaphragm first. Yoga - check breathing pattern being taught. No breath holding.

#### **Lifestyle Management**

Recognising triggers of breathing problems and of stressors. Work out possible solutions and strategies for coping.

## **Tension Management**

Fight or Flight Reflex -look for physical signs and learn to recognise their own.

Relaxation- Laura Mitchell, NPL, CBT, Mindfulness, Meditation, warm bath

## **Acute Episode Management**

Understand the symptoms and the causes by all of the Above.

Find quick, individual management techniques, breathe into cupped hands, 'switch' relaxation techniques, diversion therapy.



## **Managing Breathing Control and Treatment**

Go carefully, avoid the patient doing too much too soon, find small achievable goals and progress slowly – keep the practice routine functional and in keeping with their lifestyle. Remember it is normal for the patient to feel air hunger, but do not allow too much air hunger or they will compensate.

Remember to incorporate good breathing with other treatments such as chest clearance or IMT – inspiratory muscle training, breathing control in chronic lung disease.

There should be some improvement in first 2 weeks, outcome measures should show some changes in 4 weeks, but improvements can continue for 6 months.

Relapses may happen if re-occurrence of triggers.

Use of technology- self - help CD & DVD available from Anne Pitman, order through the web site and books by Dinah Bradley, Tania Clifton- Smith, Leon Chaitow and Alex Hough.

Thank you on behalf of the BPD committee group.

www.physiotherapyforbpd.org.uk



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Physiotherapy For Breathing Pattern Disorders

#### **Resources**

www.breathingworks.com





