Inspiratory Muscle Training (IMT) Protocol – Principles and Practice

- Inspiratory muscle weakness contributes to reduced respiratory volumes after SCI.
- Inspiratory muscles respond to a training stimulus to increase their strength and function.
- Research suggests that the most feasible and effective currently known treatment is resistance-based inspiratory muscle training.

Research suggests....

A Cochrane review identified that respiratory muscle training (RMT) is effective for increasing respiratory muscle strength (1, 2) and increasing lung volumes for people with cervical SCI; including vital capacity, maximal inspiratory pressure and inspiratory volume (3). RMT has been shown to improve lung function and reduce the severity of sleep apnoea (2) and may reduce the risk of pneumonia. Importantly, no adverse effects of respiratory muscle training have been reported (1).

Strength Training Program

- Turn the white knob until the red line aligns with the black line at setting 10
- This means that you will start training at an intensity or pressure of **10cmH2O**
- **Start at 3 sets of 10 repetitions, once/day**
- Attach the mouthpiece to the tube, apply the nose clip if you can, take a deep slow breath in
- If you hear a “whistling” sound – called a “Kazhoo” sound – this means you are breathing in too hard, *short and sharp*. Remember! It is harder (and better for your lungs 😊) to take a deep and slow breath in – expanding all the way down to your lung bases and really challenging your muscles
- To progress the training, increase the pressure by **10% every 2nd or 3rd day, or at least every week**, to progress the training stimulus.

References:

### Inspiratory Muscle Training Diary

#### Start:
- Resistance = 10
- Repetition = 3 x 10 per day
- Frequency = once per day

#### Week: | Pressure: | Mon | Tuesday | Wed | Thurs | Fri | Sat | Sun
---|---|---|---|---|---|---|---
Week 1 | 10 |  |  |  |  |  |  |
Week 2 | 11 |  |  |  |  |  |  |
Week 3 | 12 |  |  |  |  |  |  |
Week 4 | 13 |  |  |  |  |  |  |
Week 5 | 14 |  |  |  |  |  |  |
Week 6 | 15 |  |  |  |  |  |  |
Week 7 |  |  |  |  |  |  |  |
Week 8 |  |  |  |  |  |  |  |
Week 9 |  |  |  |  |  |  |  |
Week 10 |  |  |  |  |  |  |  |
Week 11 |  |  |  |  |  |  |  |
Week 12 |  |  |  |  |  |  |  |
Week 13 |  |  |  |  |  |  |  |
Week 14 |  |  |  |  |  |  |  |
Week 15 |  |  |  |  |  |  |  |
Week 16 |  |  |  |  |  |  |  |
Week 17 |  |  |  |  |  |  |  |
Week 18 |  |  |  |  |  |  |  |

#### Comments:

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