

The Physiotherapy New Zealand Cardio-Respiratory Special Interest Group Statement relating to the video posted by News Hub/The Herald

9 April 2020

Coronavirus: UK doctor offers breathing technique advice to assist in alleviating COVID-19 symptoms.

A clip has been shared worldwide over the last few days of a doctor from the UK demonstrating a breathing technique and claiming that it assists in alleviating COVID -19 symptoms. Unfortunately the technique demonstrated in this clip is scientifically inaccurate and for a large percentage of the population it could in fact worsen their respiratory symptoms.

The Association of Chartered Physiotherapists in Respiratory Care (ACRPC) of the UK have tweeted that they “*are not in support of this technique for COVID-19 as presentations vary dramatically*”. The Physiotherapy New Zealand Cardio-Respiratory Special Interest Group also does not endorse this video or the techniques demonstrated in it.

It is presented by a doctor who advises at the beginning of a clip that he doesn't know the technique but was just taught it by a senior nurse, it was posted online and endorsed by a celebrity and has since been picked up by a number of media sources.

Patients with respiratory symptoms are thoroughly assessed and then treated with individualised breathing techniques by respiratory physiotherapists depending on their condition, symptoms and severity.

A respiratory physiotherapist works in a number of settings from ED, ICU, the acute care wards through to outpatients respiratory clinics and community settings. They deliver individualised treatment sessions and deliver exercise and education programmes called pulmonary rehabilitation, in the inpatient hospital setting they will prescribe individual breathing techniques for patients which may be carried out by other members of staff including nurses/ support workers.

During the current Alert Level 4 lock down physiotherapists on the front lines in ED, ICU and medical wards are still treating patients who present with respiratory symptoms. Those in the community and outpatient settings are contacting patients via video consultation or phone consultation and can still be accessed by a referral from your GP though to the DHB or by contacting a private respiratory physiotherapist through the Physiotherapy New Zealand physio.org.nz website.

For several reasons this clip could be harmful.

1. Deep versus big breath.

Many individuals do not know the difference between a big and a deep breath (if I ask you now to take a deep breath what do you feel rise – your chest or your stomach?). A deep breath is triggered by your diaphragm (your main breathing muscle below your lungs), it should result in your stomach moving and be a low or normal volume breath versus a big breath which is a full lung volume using the upper chest as well.

Breathing techniques taught by physiotherapist often require a **deep breath to open the airways not a big breath**, this very commonly needs to be taught and practised.

In this clip the doctor is showing repeated big breaths which can rapidly lead to hyperventilation or over breathing, a symptom of this is dizziness and he even comments during the clip “*I feel dizzy*” which is a sign that he is actually is hyperventilating. He also includes a breath hold which is not routinely taught especially for those who are short of breath at rest as it can make symptoms worse.

2. “Do a big cough to open the lower airways” – uncontrolled coughing can actually cause airway collapse trapping mucus as well as unnecessary stress to the pelvic floor if repetitive. Therefore, coughing is only advocated once the patient has been fully assessed and where there is mucus to clear.

3. “Lie flat on your front on a bed breathing slightly deeper for 10 mins” – again hyperventilation is the potential outcome, lying on your stomach or prone has some merit as it encourages air entry into the posterior lobes or back section of your lungs and prone can assist with diaphragm movement. This can be valuable where there is evidence of reduced oxygen levels as determined by assessment of the patient. However not all patients with respiratory symptoms related to COVID-19 or other conditions tolerate this position, it has the potential to worsen symptoms. Additionally, there is no mention of the benefits of upright positioning in those that are well enough to tolerate this.

4. He is inhaling using his mouth not nose – the nose is importance to humidify and filter the air coming into the lungs as well as encourage a relaxed, diaphragm breathing pattern.

5. He has prescribed 5 deep breaths with x2 rounds.

6. He is coughing into a jumper rather than modelling good practice by using the crook of the elbow.

Physiotherapists modify and individualise breathing techniques based on their assessment of each patient and the patients response during the treatment. Note – be careful of prescriptive techniques that encourage an unusual breathing pattern e.g. breathe in for 5 hold 7 release etc as this can unsettle an already dysregulated breathing pattern, be very uncomfortable and may even trigger anxiety, hyperventilation (dizziness) and or in this case trigger the cough reflex.

ENDS

Physiotherapy New Zealand (PNZ) is the national membership organisation for physiotherapists and physiotherapy students. The PNZ Cardio-Respiratory Special Interest Group (CRSIG) represent cardio-respiratory interests among the physiotherapy profession.

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