Lungs Fit *For Life*

By Sudha Hamilton

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In our city centred world, full of stress, pollution and too many sedentary occupations, we seem to be at the mercy of the many resultant respiratory ailments. It is all too common to hear of spiralling rates of asthma and bronchial complaints within our modern communities. The breath of life - is there anything as vital to our survival? Have you ever experienced that panic inducing moment when you just cannot catch your breath, whether it's under the waves in the surf, running a race, or simply stressed by life? Not being able to breathe properly is a terrible experience, and one that marks a rapid rise in heart rate. What can we do to check the rise of these often life threatening conditions? Get fit! Yes - improving overall fitness levels through regular exercise like swimming, walking and going to the gym, can and does help many people who are prone to developing serious respiratory diseases.

What are we doing physiologically when we exercise? Well many things are occurring within our bodies when we run, swim or walk quickly. Our hearts beat faster and push more blood around our body more quickly; our lungs expand to take in more oxygen, and we are forced to do this more often. As we breathe in and out, especially if we are running uphill or further than we have before, it gets harder to catch that full breath. There is resistance to this caused by the exertion involved and it is this resistance that trains our lungs and improves our inspiratory muscle strength.

These muscles, which are directly responsible for our ability to breathe, are weakened when suffering from Chronic Obstructive Pulmonary Disease (COPD). COPD is most often exacerbated by bronchial infections and can often lead to hospitalisation if unchecked. The treatment for COPD is usually a rehabilitation program, which involves some inspiratory muscle training, and runs between 4 to 12 weeks depending on the severity of the disease. Unfortunately around 50% of hospitalised COPD patients are readmitted the following year with the same condition and many patients remain permanently symptomatic with impaired quality of life. This is due to the fact that the effects of short term rehabilitation program