Looking back on most of the life of Dr James Phipps, one thing is clear — the man never slowed down.

As both a father of four active sons and a physician — board certified in orthopedic surgery — Dr Phipps was kept on his toes. After he received his medical training in St. Louis, he undertook new challenges, such as supporting the war effort through the “doctor draft” program, practicing in Baltimore, Staten Island and eventually San Francisco where he became an assistant clinical professor at the University of California, San Francisco. Nothing, it seemed, could slow Dr Phipps down.

Nothing, except chronic obstructive pulmonary disease (COPD).

A pack-a-day smoker for 42 years, Dr Phipps quit the habit in 1984, but the damage was done. After he retired and grew older, he found his quality of life deteriorating, especially when it came to exercise. At the age 93, Dr Phipps has a history of (CHF), COPD, two myocardial infarctions, and atrioventricular nodal ablation following pacemaker placement.

According to a case study by Nishith Patel, RRT-NPS, Dr Phipps “experienced increasing dyspnea on exertion over the past few years that accelerated in 2011. He reported he could only walk short distances before having to sit to catch his breath. He used oxygen: 2 l/min via nasal cannula at rest, 4 l/min with exercise and 2 l/min during sleep with bi-level positive airway pressure.”

These conditions make living an active life virtually impossible, as Dr Phipps desperately wanted to return to community activities and even do household chores. But his health wasn’t just holding him back from being active. The respiratory symptoms were so severe due to pending heart failure, that he felt his life was perhaps ending, and so he entered hospice care.

In order to obtain a pulmonary consult, Dr Phipps signed himself out of hospice care. That pulmonary consult changed everything — especially with the help of the Breathe Technologies Non-Invasive Open Ventilation (NIOV) device.

According to Patel’s findings, “unlike conventional noninvasive ventilation devices which are impractical for ambulatory use,¹ Breathe Technologies Non-Invasive Open Ventilation (NIOV) is one pound and driven by the patient’s compressed oxygen supply. The NIOV device is designed to be a practical therapy that promotes increased physical activity. In two prior clinical trials, severe COPD patients using the NIOV system showed increase in mean 6-minute walk tests of 57 (± 54) meters² and 36 (± 34) meters,³ respectively. A third clinical trial that was conducted in a pulmonary rehabilitation setting, where severe COPD subjects reported that using the study device would result in less dyspnea, reduced work of breathing, and greater mobility and exercise endurance compared to their current oxygen systems.”⁴

After pulmonary consultations for the management of his advanced COPD disease, Dr Phipps left hospice and was prescribed physical therapy to strengthen his skeletal muscle. Skeletal muscle dysfunction is a major contributing factor to the limitations in exercise capacity.⁵ COPD patients commonly suffer

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from exertional symptoms of dyspnea and fatigue that can lead to an impaired health status. This functional loss may lead to a sedentary lifestyle, which ultimately results in deconditioning, said Patel. Inactivity due to exercise intolerance often results in a downward health spiral, including more frequent pulmonary exacerbations, and eventually early mortality.

Dr Phipps underwent physical therapy and saw small improvements. According to Patel, "he did show promising signs of improvement with physical therapy, and therefore it was decided to initiate a formal pulmonary rehabilitation program to help him gain better control of his dyspnea. After weeks of pulmonary rehabilitation, he experienced a noticeable degree of relief from his respiratory insufficiency symptoms managing to perform mild, low intensity exercise without oxygen. However, he was still experiencing dyspnea, which he felt limited his exercise endurance and his ability to perform his activities of daily living.”

Dr Phipps’ stated goal was to perform vigorous exercise and his pulmonologist recommended the Breathe NIOV System. NIOV therapy was initiated in January 2012, and Dr Phipps noticed an immediate relief in his dyspnea. He continued to use the NIOV device during and after his pulmonary rehabilitation sessions, which has reduced his work of breathing and increased his exercise endurance. Dr Phipps performed vigorous exercise in the form progressive resistance training on a NuStep increasing his settings from 4 to 10.

Dr Phipps told his medical team that before NIOV therapy he often was “gasping for air when attempting to exercise needing to take a break every 5 minutes to catch his breath.” He reports that with the help of the NIOV, he has optimized his ability to condition his lower extremities, which has made a noticeable impact on his stamina, balance, and performance in ADLs. He now engages in intense exercise training for one hour without stopping.

Dr Phipps has also reported a significant improvement in his strength and energy levels during upper-limb muscle training with the NIOV System, which has led to a shift in the respiratory load that has had the added benefit of strengthening his diaphragm, while improving thoracoabdominal synchrony and dyspnea.

In the six months prior to using NIOV, Dr Phipps reported two hospitalizations with an average length of stay of five days. Since initiation of NIOV therapy in January of 2012, Dr Phipps reports no hospitalizations due to respiratory symptoms or COPD exacerbations.

COPD makes exercise nearly intolerable, even though it is vital that people with the condition stay as active as possible.

The NIOV System, according to Patel, is designed to improve mobility and ambulation for patients with respiratory insufficiency.

Now, at the age of 93 and with the Breathe NIOV device, Dr Phipps is able to do many of the things he loves to do, from gardening to daily walks. He also is able to attend his exercise sessions three days per week.

References