

Physiotherapy + COPD

Facts about physiotherapy's role in COPD treatment and management



Chronic obstructive pulmonary disease (COPD) can't be cured but it can be managed. With the right pharmacological and non-pharmacological strategies, people with COPD can lead active, independent and productive lives. Physiotherapy is one such treatment. Specialized physiotherapy treatment and specific exercise prescription and self-management techniques produce significant patient benefits.

COPD facts:

- Affects 1.5 million Canadians and is increasing.
- Fourth largest cause of death in Canada, with over \$12 billion/year in healthcare + lost productivity costs. Extrapolated for Alberta - that's roughly \$1.25 billion/year.¹
- Recent study found 1 in 4 Canadians over age 35 are at risk for COPD. The average 35 year old woman is 3X more likely to get COPD than breast cancer during her life.²
- COPD is expensive to treat and places a big strain on Alberta's healthcare resources:
 - Every 37 minutes an Albertan with COPD visits an emergency department.²
 - Edmonton's Misericordia + Grey Nuns inpatient discharges show COPD acute exacerbations represented the greatest number of patients (332), longest patient stays (16.2 days) and greatest number of total bed days (5,388).¹
- Pulmonary rehabilitation is now the standard of care for COPD patients who remain symptomatic after bronchodilators.³
- Pulmonary rehabilitation improves COPD symptoms, function, patient quality of life and mental health, and reduces hospital admissions.³⁻⁸ It's estimated only 1.2% of Canadians with COPD have access to pulmonary rehabilitation.⁹
- Community-based pulmonary rehabilitation programs are as effective as traditional hospital-based programs and as such, present a viable alternative.^{3,6}
- In Alberta, every \$1 spent on pulmonary rehabilitation saves \$1.70 in healthcare costs.¹

How physiotherapists help Albertans with COPD:

- **Breathing techniques + positioning** - Teach patients ways to breathe to reduce the work of breathing and maximize the amount of air to the lungs.
- **Mucus clearance techniques** - Provide techniques to clear excess bronchial secretion + reduce air-flow obstruction—including teaching patients how to drain their lungs, using postural drainage and use Forced Expiratory Techniques (FET) or Positive Expiratory Pressure Masks (PEP) to clear mucus.
- **Inspiratory muscle training** - Teach specific techniques to strengthen muscles involved in inhaling and is recommended in combination with aerobic and limb strengthening exercises.¹⁰
- **Prescribe specific exercises to increase exercise tolerance + capability** - Design safe, appropriate, effective exercise programs to improve aerobic capacity, strengthen weakened leg and arm muscles and improve overall functional tolerance. Pulmonary rehabilitation is the most effective COPD strategy for improving symptoms, exercise tolerance and quality of life vs. standard care.³
- **Teach patients to self-manage certain COPD symptoms** and inspire patient confidence in their ability to self-manage.
- **Promote prevention** - Physiotherapists support public health interventions to prevent COPD including smoking prevention and cessation, air quality improvement, physical activity + lifestyle choices, and safe occupational environments.



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Key References

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September 2011