

PHYSIO CAN HELP

# Physiotherapy Can Help Improve Health Care for all British Columbians



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PHYSIOTHERAPY  
ASSOCIATION OF  
BRITISH COLUMBIA

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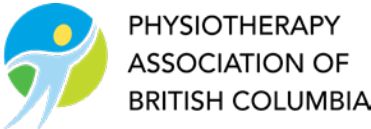
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# Executive Summary

British Columbia has over 3800 physiotherapists in public and private practice, who offer significant value to our province's healthcare system. There is a need for our province to recognize the full potential of our physiotherapists and to better utilize their variety of skills within the multi-disciplinary healthcare team setting in our hospitals and out in our communities.

Physiotherapists have the medical training and clinical expertise to effectively manage many patient conditions seen in Primary Care. This paper will address these health conditions that capable physiotherapists are much less associated with treating, such as cardiac health, pulmonary/respiratory health, pediatric health and fall prevention in older adults.

- **Physio Can Help - Cardiac Health**
  - Cardiac Rehabilitation reduces the risk of cardiac and general mortality by 15-25% and prevents the occurrence of acute events over time.<sup>1</sup>
  - Cardiac Rehabilitation programs reduce hospitalization rates following a cardiac event.<sup>2</sup>
  - Both home and facility-based Cardiac Rehabilitation programs show positive patient outcomes.
- **Physio Can Help - Pulmonary/Respiratory Health, Including Asthma and COPD**
  - Pulmonary Rehabilitation programs significantly reduce exacerbation, hospitalizations and length of hospital stay for patients.<sup>3</sup>
  - Health service use is decreased by Pulmonary Rehabilitation programs, resulting in reduced costs at an average of \$344 per person per year over a one-year period.<sup>4</sup>
  - Pulmonary Rehabilitation programs decrease symptoms and increase patient abilities, resulting in higher levels of physical and social activity, improving the overall quality of life for patients.<sup>5</sup>
- **Physio Can Help - Pediatric Health**
  - Physiotherapy improves mobility, allowing for greater independence and function for pediatric patients.<sup>6</sup>
  - Improved function in pediatric patients has been shown to increase caregiver well-being and satisfaction.<sup>7</sup>
  - Exercise programs guided by physiotherapists for children with chronic disease and disability leads to improved physical fitness, strength, pulmonary function and as a result an overall improvement in well-being.<sup>8,9,10</sup>
- **Physio Can Help - Fall Prevention for Older Adults**
  - Estimates suggest that falls and fall-related injuries cost the Canadian healthcare system approximately \$2 billion a year, with falls being the cause of 85% of seniors' injury-related hospitalizations.<sup>11</sup>
  - Falls are a significant cause of injury, disability and mortality in seniors. Physiotherapy guided fall intervention programs reduce mortality, hospitalization rates and transfers to residential care facilities.<sup>12</sup>
  - Participation in multidisciplinary fall prevention programs improve patient mobility and confidence, increasing their participation in physical and social activity.<sup>13</sup>
- Physiotherapy treatments for the conditions listed above, and many others that impact patients in our province, lead to improvements in physical function, as well as increased social participation, for patients which can support better mental health and overall well-being for the patient.
- Physiotherapists should be considered a key component of primary care teams in public and private practice to help address the health care needs of the province.

## Physio Can Help

British Columbia's more than 3,800 physiotherapists in public and private practice can offer significant value to the Province's health care system. As highly skilled and educated practitioners with training that is anchored in movement sciences, combined with the profession's commitment to population health, physiotherapists focus on enhancing and restoring mobility for patients with a wide variety of conditions.

Whether they are working independently or as a part of a multi-disciplinary primary care team, physiotherapists deliver effective assessment, treatment and patient outcomes that not only address acute and chronic needs, but deliver a higher overall state of well-being for patients in this province, through improved mobility and independence. As highly trained health practitioners, physiotherapists have the necessary skills to identify risk factors for disease and disability, while providing timely interventions and treatments. Coming from a population health approach, physiotherapists shift emphasis away from solely treating disability, disease or injury toward promoting broader health outcomes to the benefit of the individual patient and their community.

While best known for orthopedic rehabilitation or general musculoskeletal treatments, specialized physiotherapists deliver significant patient outcomes for a wide variety of conditions, including pulmonary/respiratory, cardiac, various pediatric conditions and fall prevention in older adults. This paper summarizes some of these lesser known areas that physiotherapists work in hospital and community settings to deliver improved function, mobility, mental health and well-being for patients. These conditions serve as examples of the wide range of contributions that physiotherapists can make to our population's health. When it comes to effective treatment that directly improves the overall well-being of patients in our province, [Physio Can Help](#).



## Where Physiotherapy Can Help

Physiotherapists provide direct access, primary health services to British Columbians that promote improved mobility, independent functions and overall mental health and well-being. Due to their advanced understanding of how the body moves and ability to support restored function and mobility, physiotherapists provide significant value for a number of conditions, resulting in positive patient outcomes that support the delivery of effective healthcare in our province.

The conditions covered in this paper represent lesser known areas of Primary health care where physiotherapy, through both private and public practice, primary care homes and multi-disciplinary teams can be integrated and positively impact patient outcomes and well-being.

## Cardiac Health

Cardiac disease is a leading cause of death in Canada. Trained physiotherapists deliver Cardiac Rehabilitation that can reduce the risk of cardiac and general mortality by 15-25%, and can also prevent the occurrence of acute cardiac events.<sup>14</sup> Following a cardiac event, treatment by a physiotherapist can have significant impact on the overall physical function and quality of life for the individual. Trained cardiac physiotherapists provide tailored patient care that leads to improvements in both physical function, as well as increased social participation, both of which support better mental health and well-being for the patient.

Following a cardiac event, physiotherapists are integral to supporting the transition of patients from hospital to on-going Cardiac Rehabilitation community care services. Cardiac Rehabilitation is a comprehensive, multidisciplinary approach to the prevention, stabilization and possible reversal of cardiovascular disease, and happens in clinics, hospitals, primary care homes and through home-based care. As part of the patient primary care team during Cardiac Rehab, physiotherapists focus on having the patient do aerobic exercise (ellipticals, bikes, ergometers, and rowing machines) while monitoring heart rate and blood pressure; mobility and strengthening exercises; trunk stability and strengthening; improving exercise tolerance and endurance; and flexibility exercises.



Participation of physiotherapists in the delivery of Cardiovascular Rehabilitation programs has been shown to improve patient compliance, resulting in better overall health outcomes for patients, and the cost of running the programs per patient are significantly lower than other interventions, including drug therapy.<sup>15</sup> Cardiac Rehabilitation has been shown to be equally effective, whether it is home or facility based, with home-based options providing a low-cost alternative for stable patients.<sup>16</sup> Unfortunately, in Canada, only 15% or less of patients with cardiac diagnoses participate in Cardiac Rehab.<sup>17</sup>

A comprehensive Cardiac Rehabilitation program that includes treatment by a trained physiotherapist, specializing in cardiac care, increases physical activity, encourages the adoption of healthy behaviours and leads to higher patient health outcomes, including mental health and overall well-being. When it comes to cardiac health in our province, [Physio Can Help](#).

## Physio Can Help Cardiac Health

- Cardiac Rehabilitation including physiotherapy reduces the risk of cardiac and general mortality by 15-25% and prevents the occurrence of acute events over time.
- Cardiac Rehabilitation programs, with a physiotherapist working as part of the care team, reduce hospitalization rates following a cardiac event.<sup>18</sup>
- Both home and facility-based Cardiac Rehabilitation programs show positive patient outcomes.

## Pulmonary/Respiratory Health, Including Asthma & COPD

Physiotherapists trained in Pulmonary Rehabilitation programs are able to provide high value in the treatment of chronic lung diseases, such as asthma or COPD. Physiotherapist guided Pulmonary Rehabilitation can significantly reduce the severity of COPD incidents, including the need for hospitalization or a reduction in the required length of patient stay.<sup>19</sup>

With the right pharmacological and non-pharmacological strategies, people with respiratory health issues can manage their symptoms and lead productive lives. Specialized physiotherapy treatment and specific exercise prescription and self-management techniques produce significant patient benefits. In fact, one recent COPD research report defined pulmonary rehabilitation (which includes physiotherapy) as “a necessary requirement not a treatment option.”<sup>20</sup>

Physiotherapists help Pulmonary Rehab patients by: teaching patients ways to reduce the work of breathing and maximize the amount of air to the lungs; providing techniques to clear excess mucus and facilitate drainage of fluid from the lungs; teaching techniques to strengthen muscles for inhaling; designing exercises to increase aerobic capacity; and promoting prevention by encouraging patients to make lifestyle improvements around pulmonary health (i.e. smoking cessation, active lifestyle choices, air quality awareness).

With growing populations of people with asthma and respiratory conditions, physiotherapy can provide direct and effective treatment that can help decrease symptoms that negatively impact the activity level of patients. By improving the patient-ability levels, physiotherapy leads to an increase in a patient's participation in physical and social activities, and therefore greater overall health outcomes, including mental health and well-being.<sup>21</sup> When it comes to respiratory health in our province, [Physio Can Help](#).

## Physio Can Help Pulmonary/Respiratory Health

- Pulmonary Rehabilitation programs, with a physiotherapist working as part of the care team, significantly reduce exacerbation, hospitalizations and length of hospital stay for patients.<sup>22</sup>
- Health service use is decreased by Pulmonary Rehabilitation programs, resulting in reduced costs at an average of \$344 per person per year over a one-year period.<sup>23</sup>
- Pulmonary Rehabilitation programs decrease symptoms and increase patient abilities, resulting in higher levels of physical and social activity, improving the overall quality of life of the individual patient.<sup>24</sup>

## Pediatric Health

Pediatric physiotherapy treats a wide variety of conditions supporting the health of children up to age 18 across our province. Pediatric physiotherapists can be found delivering effective treatment in hospital settings, community and private clinics, and in schools. They provide effective, evidence-based treatments for a wide variety of conditions, including: neurological (includes concussion prevention and treatment), developmental, respiratory (includes asthma), and orthopedic. Chronic conditions such as cerebral palsy, cystic fibrosis and juvenile idiopathic arthritis all also benefit significantly from physiotherapy treatment. As a practice, physiotherapy is focused on assessment and treatment that helps improve movement and function in patients, resulting in life-long improved patient health outcomes. Additionally, improved function in pediatric patients has been shown to also increase caregiver well-being and satisfaction.<sup>25</sup>

Pediatric physiotherapists have the clinical skills to help children improve in their physical well-being and abilities, and the training to be a resource for families, offering a wide array of activities and services to meet the needs of every child. They also offer children an exciting and fun destination for therapy and are ideal care providers in a multidisciplinary primary care team model that facilitates professional collaboration across disciplines and therapy delivery models.



Real-world scenarios in pediatric patient care involve physiotherapists, in conjunction with other team members, identifying limiting factors in a child's ability to perform a skill (i.e. is it an issue of strength? balance? coordination? sensation? attention?). As movement experts, physiotherapists help children overcome a full-range of movement challenges, as well help them learn new patterns of movements that enable new skills to develop.

At BC Children's Hospital, for example, physiotherapy is offered to inpatients, outpatients, and in other clinics at the hospital. Physiotherapists provide preventive, diagnostic and rehabilitative services for children from birth to 19 years of age. In acute inpatient care, physiotherapists work with children with complex, multi system conditions, in conjunction with the family and other members of the care team. In addition, they work with:



- outpatients with musculoskeletal, neurological and cardiorespiratory conditions;
- in the Cystic Fibrosis clinic help with the assessment, treatment and education of children with CF and their families;
- in the Home Tracheostomy & Ventilation Clinic to help children with respiratory health;
- and in the Orthopaedic Cerebral Palsy Clinic to help with assessment, surgical management, and post-operative care, to improve the quality of life for children with Cerebral Palsy and similar neuro-motor conditions.

Because so many systems must be working together in a coordinated manner to successfully perform skills, children become frustrated quickly if the activity is not adapted appropriately so that they experience success. Therefore, the long-term benefits of early intervention with pediatric physiotherapy, whether for chronic or acute conditions, or for injury rehabilitation are very high with this patient population. For patients with more acute or chronic needs, pediatric physiotherapy offers treatment that results in increased independence over the long term, resulting in reduced ongoing utilization of health care services.<sup>26</sup> The continuity of care that physiotherapists provide as pediatric patients transition to adult care is also of high value to the healthcare system.<sup>27</sup> As with other patient populations physiotherapy plays a significant role in improving mobility, function, social participation and therefore greatly increases the well-being and mental health of the children and their caregivers. When it comes to pediatric health in our province, [Physio Can Help](#).



## Physio Can Help Pediatric Health

- Physiotherapy improves mobility, allowing for greater independence and function for pediatric patients.<sup>28</sup>
- Improved function in pediatric patients has been shown to increase caregiver well-being and satisfaction.
- Exercise programs guided by physiotherapists for children with chronic disease and disability leads to improved physical fitness, strength, pulmonary function and as a result an overall improvement in well-being.
- Children under the care of a physiotherapist experience increased self-esteem, increased self-efficacy, more confidence, and improved mental health.

## Fall Prevention

With an aging population, awareness of the targeted needs of older adults is high in the healthcare system. Falls are a major cost of injury, disability and mortality in seniors. In Canada, the average cost of falls requiring hospitalization approaches \$30,000.<sup>29</sup> Physiotherapy is highly effective at reducing the risk of falls in older adults, while also increasing mobility, function and independence in this patient population, resulting in significant beneficial health outcomes. The cost of treating a fall has been found to be 1.85 times higher than implementing a fall prevention program.<sup>30</sup>

Physiotherapists have a high success rate in decreasing the incidence and severity of falls. Physiotherapy treatment for fall prevention in older adults includes screening for risk factors, including environmental risks, medication and vision complications. This screening can help put in place interventions or adjustments to reduce the likelihood of a future fall. Treatment for fall prevention by a physiotherapist, includes a prescription and guidance for exercises and activities to strengthen mobility and balance in the patient.

At the Vancouver Falls Prevention Clinic, for example, physiotherapists work in partnership with family doctors, specialists, and allied health professionals to prevent falls in older adults. Dedicated geriatricians work using a team-based approach with each patient's health care providers, and individuals who visit the clinic undergo a thorough falls risk assessment using innovative and valid measures which assesses strength, balance, vision, proprioception and reaction time, predicting the risk of future falls with 75% accuracy. Further, questionnaires and clinical screens are administered to assess patients' state of independent living, cognitive health, and quality of life. Based on the information collected during the visit, the care team produces a detailed treatment and management plan for each patient. The care provided by the clinic's interdisciplinary health care team can reduce falls by approximately 50%.<sup>31</sup>

While physiotherapy guided fall prevention programs are effective at preventing future incidents they also directly impact positive improvements for patients by providing increased confidence, physical function, strength and balance, resulting in an improvement patient mobility and independence. Increase mobility impacts physical activity levels and social interaction for this vulnerable patient population, resulting in improved mental health and well-being for patients and the positive health outcomes that brings. When it comes to fall prevention and the health of older adults, [Physio Can Help](#).



## Physio Can Help with Fall Prevention

- Estimates suggest that falls and fall-related injuries cost the Canadian health care system approximately \$2.8 billion a year.
- Falls are a significant cause of injury, disability and mortality in seniors. Physiotherapy guided fall intervention programs reduce mortality, hospitalization rates and transfers to nursing homes.
- Participation in multi-disciplinary fall prevention programs improve patient mobility and confidence, increasing their participation in physical and social activity.

## Physiotherapy and Primary Care

As summarized in our earlier paper, *Physiotherapy and Primary Care*, British Columbia's 3,800 physiotherapists should be — although they are not always— integral members of multi-disciplinary teams of health professionals who deliver Primary Care in our province. Physiotherapists have the medical training and clinical expertise to effectively manage many patient conditions seen in Primary Care, including those summarized in this paper.

Working in multi-disciplinary teams with other health professionals, physiotherapists have the skills and knowledge to assess, triage and treat a broad set of health conditions. These highly trained healthcare professionals can treat a broad range of conditions, relieving pressure currently placed on the healthcare system, including General Practitioners (GPs).



Physiotherapists already have been successfully integrated into Primary Care models in the United Kingdom, Sweden, Norway, the Netherlands, Australia and New Zealand, as well as in the Canadian and U.S. armed forces. In Ireland, for example, the aim of Primary Care Teams is to treat more patients in the community and to funnel non-acute cases away from hospitals into multidisciplinary community clinics. There, physiotherapists are moving out of hospitals and into these settings, and providing first-line treatment for

patients with a range of conditions, including: musculoskeletal injuries, pediatric conditions, acute neurological conditions, fractures, and falls.

Through manual therapy, exercise, education and advice, physiotherapy provides care and treatment for people affected by injury, illness or disability. Physiotherapists already maintain health for British Columbians of all ages, helping patients to manage pain and prevent disease.

Taking all of these factors into consideration, physiotherapy holds the promise of resolving the challenge of successfully implementing Primary Care in British Columbia.

## Conclusion

As key players in Primary Health Care delivery with a focus on improving Population Health, physiotherapists can help improve the overall physical well-being and mental health of the people in this province. Through evidence-based assessment and treatment approaches, physiotherapists are able to improve the mobility, strength and ability of their patients, helping to increase patients' participation in physical and social activities. In public and private practice settings, and as a part of multi-disciplinary teams, physiotherapists provide value to the province's health care system, contributing to the tangible positive outcomes for patient and population health. When it comes to taking care of the physical and mental health of the province, [Physio Can Help](#).

## Recommendations

Physiotherapists should be considered a key component of primary care teams in public and private practice to help address the health care needs of the province. Physiotherapists should be involved in treatment for a wide variety of chronic and acute conditions including those listed in this paper. For more information about the ways that physio can help a wide variety of conditions, visit [www.bcphysio.org/physio-can-help](http://www.bcphysio.org/physio-can-help)

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