Nova Scotia Branch
Canadian Physiotherapy Association
Association canadienne de physiothérapie

Nova Scotia Branch of the Canadian Physiotherapy Association
PO Box 31053, Halifax, NS B3K 5T9
902-405-6772 nsbranch@physiotherapy.ca
www.physiotherapyns.ca

December 10, 2008

Diana Lawlor
CDHA Obesity Network
Sent via e-mail: Diana.Lawlor@cdha.nshealth.ca

Dear Ms. Lawlor,

I am writing to you on behalf of the Nova Scotia Branch of the Canadian Physiotherapy Association regarding the CDHA Obesity Network. It has come to our attention that funding is being considered for health professionals within this team, and we wanted to share our thoughts regarding the unique and integral role that physiotherapy plays in the prevention and management of obesity within a multi-disciplinary team.

Physiotherapists are regulated primary health care practitioners with expertise in the prevention and treatment of a wide variety of movement disorders and dysfunctions. Additionally, physiotherapists are skilled in the specific areas of anatomy and biomechanics, therapeutic exercise, exercise prescription, and knowledge of the pathophysiology of disease and health. A physiotherapist should be considered an essential component of your team for many reasons:

- Physiotherapists are able to effectively co-ordinate a “prehabilitation” mobility plan for obese individuals who are preparing for bariatric surgery. This includes addressing any physical limitations that prohibit weight loss and general mobility, and includes an individualized, realistic and appropriate exercise plan that maximizes the client’s goals.
- Compared to practitioners trained to develop exercise programs for healthy individuals, physiotherapists are experts at designing mobility plans for those with morbid obesity and associated conditions from the beginning stages of bed mobility, to exercise plans focused on weight loss. Physiotherapists provide education related to appropriate positioning and transfers to the client, other health care providers and family members to help maximize a client’s progress.
- Individuals with obesity often have musculoskeletal and physical limitations, such as osteoarthritis, cardiovascular disease, pain and dyspnea, which may prohibit them from exercising in traditional ways. Physiotherapists coordinate comprehensive exercise plans that address these impairments and prescribe exercise that is both safe and appropriate.
- Physiotherapists recognize the importance of a team approach and are well positioned to work within and coordinate interdisciplinary teams. In collaboration with other health providers, physiotherapists can provide community-based consultation and advice to ensure that the client has access to appropriate services, and that the environment in which they live is both safe and effective.

- Physiotherapists advocate for health promotion, wellness and education related to weight loss and the importance of physical activity to prevent further complications associated with obesity and inactivity.
- Physiotherapists are committed to evidence-based practice and participate in research to ensure development and implementation of guidelines and effective programs for obesity management.

We have enclosed resources with extensive references documenting the effectiveness of physiotherapy interventions for clients with obesity to support the above statements. I would welcome any comments or questions, and would be pleased to meet with you to discuss this initiative further at your convenience.

A combined effort by physiotherapists and other health care providers is essential to the future prevention and current management of obesity and related conditions. I trust that you and your colleagues will strongly consider the addition of a physiotherapist to your team. The success of your program and its clients' outcomes is dependent upon it.

Yours sincerely,

Kristin Taylor, PT
President, NSCPA

Cc: Chris Power, President and CEO, Capital District Health Authority
Dr. Brendan Carr, VP, Medicine, CDHA
Lynn Edwards, VP, Primary Care, CDHA
Jill Robbins, Director, Rehabilitation Services, CDHA
Denise Titus, Health Service Manager, Physiotherapy Department, CDHA
Honourable Chris d'Entremont, NS Minister of Health
Honourable Barry Barnet, NS Minister of Health Promotion and Protection

Attachments: Canadian Physiotherapy Association Position Statement on Obesity
Physiotherapy Briefings for Physicians, May 2008: Obesity

POSITION STATEMENT

Canadian Physiotherapy Association position statements address political, ethical and social issues that impact patient welfare, the role and practice of physiotherapy, the Association and its members.

Canadian Physiotherapy Association | Association canadienne de physiothérapie

PHYSIOTHERAPISTS AND THE MANAGEMENT OF OBESITY

STATEMENT

The Canadian Physiotherapy Association (CPA) believes that physiotherapists play a vital role within a multidisciplinary team in the prevention and treatment of obesity and associated conditions. CPA is committed to advancing the role and responsibilities of physiotherapists in helping overweight and obese individuals to manage their condition and in developing the evidence and best practices to support these interventions.

BACKGROUND

CPA recognizes the increasing epidemic of obesity occurring in Canada and the severe impact of this condition on the health of Canadian children, youth, and adults. Overweight [body mass index (BMI) ≥ 25] and obesity (BMI ≥ 30) occur on a continuum throughout the lifespan.[1] The impact of obesity on the health of Canadians is wide ranging and severe, predisposing individuals to reduced life expectancy and chronic diseases such as diabetes, musculoskeletal problems including arthritis or back pain, cardiovascular disease, stroke, asthma, and some cancers.[1] Over 5.5 million (23 per cent) adults and 500,000 children in Canada are reported as being obese[2] while an additional 59 per cent of those over 18 years are classified as overweight.[3] Over the past 20 years these rates have risen sharply and steadily both in Canada and globally to such an extent that the World Health Organization (WHO) predicts by the year 2015, 2.3 billion adults will be overweight and over 700 million obese.[4] Obesity is now acknowledged as the most important nutritional condition and precursor to death and disability throughout the world.[3,4]

The Canadian Obesity Network (CON) reports that in 2001, health expenditures for obesity and related conditions totalled 2.2 per cent of Canada's total healthcare budget.[2] In addition to these direct costs, obesity also has a significant impact on an individual's quality of life, rate of absenteeism and short and long-term disability.[2] However, the WHO stated that "overweight and obesity, as well as their related chronic diseases, are largely preventable."[4] A combination of lifestyle, behavioural and psychosocial factors, culture, genetics, and environmental influences all contribute to the development of these conditions, which requires a multi-faceted, comprehensive and sustained approach.

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NATIONAL OFFICE
2345 Yonge Street, Suite 410
Toronto, Ontario M4P 2E5
T: 416-932-1888 / F: 416-932-9708
www.physiotherapy.ca

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ROLE OF THE PHYSIOTHERAPIST

Obese individuals experience a wide range of limitations including shortness of breath, muscle weakness, joint pain, skin breakdown, urinary stress incontinence, difficulty with basic mobility including changing position, walking, climbing stairs, using transportation, and managing personal hygiene.[5,6,7,8,9] As primary health professionals, physiotherapists are ideally suited to identify exercise strategies targeted to this population and to coordinate comprehensive programs of obesity management. Physiotherapists also have specific education in biomechanics, therapeutic exercise and exercise prescription, measurement, and physiological and anatomical mechanisms of health and disease. This diverse skill set and broad experience base makes physiotherapists well suited to address the complexities of obesity and related conditions.

With the obesity epidemic, physiotherapists are increasingly called upon to promote healthy lifestyles for individuals and assist with management of their disabilities primarily caused by overweight and obesity. Physiotherapists' roles include:

Health Promotion/Complication Prevention

Physiotherapists are often the first health professionals individuals contact when pain and functional limitations are experienced. This positions physiotherapists as frontline providers to promote healthy lifestyles and provide education and counselling related to the risks associated with obesity. Experiencing joint pain, back pain or functional limitation may act as a precipitating factor or motivation for individuals to lose weight. Physiotherapists can prescribe exercise strategies and programs to enhance weight loss and work collaboratively with other health professionals to deliver a comprehensive obesity management program.

Management/Intervention

In the community, physiotherapists are well positioned to coordinate comprehensive, inter-professional programs targeted at obesity management and to serve as advocates for individuals' access to needed services and adaptations to accommodate their increased size and weight. Clinically, physiotherapists have the skills to help reduce barriers to participating in weight loss activities by individualizing exercise regimens that accommodate pain or functional limitations. Specifically, they provide exercise assessment, prescription and supervision to obese individuals to increase muscle strength, flexibility and endurance and sustain energy output under safe and controlled conditions. When an individual is hospitalized for the management of obesity, surgery and/or other related conditions, the physiotherapist prescribes and implements graded mobilization and rehabilitation programs, and provides education on appropriate positioning and transfers.

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ROLE OF THE PHYSIOTHERAPIST (CONT'D)

Management of Associated or Secondary Conditions

Physiotherapists play a key role in the management of symptoms associated with osteoarthritis in weight bearing joints, the effects of other musculoskeletal injuries or conditions, and chronic conditions such as diabetes and heart disease. Obese individuals face major challenges in the management of associated conditions and in recovery from surgical interventions. Physiotherapists can design rehabilitation programs to help these individuals regain, maintain and improve function. Physiotherapists also play an important role in the 'prehabilitation' management of individuals prior to surgery such as hip or knee replacement with the underlying goal of supporting weight loss or obesity prevention to ensure optimal post operative recovery.

Research

Physiotherapists participate in research that increases clinical understanding of the direct and indirect implications of obesity. In turn, this research assists in the development and implementation of innovative programs which are based on, and contribute to best practice in the management of obesity and associated conditions.

CONCLUSION

Obesity prevention and management requires an aggressive and comprehensive approach. A concerted effort by physiotherapists and other health professionals is necessary to curb this increasing health epidemic. CPA is committed to supporting and promoting the role of physiotherapists in this critical area through mechanisms such as disseminating information related to obesity and physiotherapy management, providing website resources to members, supporting partnership activities with the CON, and supporting research initiatives.

A Research Summary from the
Canadian Physiotherapy Association

Physiotherapy Briefings for Physicians

MAY 2008

Obesity

Subject: exercise as a tool for prevention and mitigation of obesity

Physiotherapists are expert at assessing, planning, and implementing exercise programs for overweight and obese individuals.

The number of people in Canada who are overweight or obese is reaching epidemic proportions [1,2,3]. A strong base of evidence indicates that exercise combined with diet is effective as a weight loss and weight management strategy. Further, regular exercise has health benefits even if no weight is lost.

For instance, a 2004 review [4] integrated evidence on the diagnosis and treatment of obesity in adults with the authors concluding that **a combination of diet and exercise provides the best results (NNT = 7) for treatment of overweight/obese patients**. A weight loss of 10% positively affects prevention/treatment of hypertension (NNT = 3), diabetes (NNT = 9), and hyperlipidemia. A 2006 review [5] concluded that **exercise combined with diet results in greater weight reduction than diet alone** (WMD = –1.1 kg, 95% CI –1.5 to –0.6). Increased exercise intensity increased the magnitude of weight loss (WMD –1.5 kg, 95% CI –2.3 to –0.7). The review (43 studies totaling 3,476 overweight or obese participants) concluded that exercise is effective as a weight loss intervention, particularly when combined with dietary change. This review also concluded that **exercise improves cardiovascular disease risk factors even if no weight is lost**. Exercise as a sole intervention resulted in reductions in diastolic blood pressure (WMD –2mmHg; 95% CI –4 to –1), triglycerides (WMD –0.2 mmol/L; 95% CI –0.3 to –0.1), and fasting glucose (WMD –0.2 mmol/L; 95% CI –0.3 to –0.1).

Evidence indicates that **fewer than 25% of patients who attempt weight loss on their own incorporate exercise into their weight loss plans**, and that lack of ongoing physical activity may be responsible for the prevalence of weight regain after initial weight loss. Although physicians may counsel patients to lose weight, 75% of patients may not include exercise in their program, thereby lessening their chances of achieving and maintaining weight loss [6]. Physiotherapists recognize the impact of obesity on the musculoskeletal and cardiovascular systems, and regularly prescribe and oversee therapeutic exercise designed for the physical stresses associated with obese bodies. Further, in line with the evidence, physiotherapists recommend regular exercise for health benefits even if no weight is lost.

Although physicians may counsel patients to lose weight, 75% of patients may not include exercise in their program, thereby lessening their chances of achieving and maintaining weight loss. Physiotherapists can help.

Physiotherapy Briefings for Physicians is an initiative of the Physiotherapy Association of British Columbia. This topic was developed in consultation with the Canadian Physiotherapy Association.

As primary health professionals, physiotherapists are ideally suited to identify exercise strategies targeted to overweight individuals and to coordinate comprehensive obesity management programs. Physiotherapists have specific education in biomechanics, therapeutic exercise and exercise prescription, measurement, and physiological and anatomical mechanisms of health and disease. This diverse skill set and broad experience base positions physiotherapists to address obesity and related conditions [8].

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Canadian Physiotherapy Association / Association canadienne de physiothérapie

Distributed by:
Canadian Physiotherapy Association
National Communications Office
2345 Yonge Street, Suite 410
Toronto ON M4P 2E5
416.932.1888
information@physiotherapy.ca
www.physiotherapy.ca

In Brief

The 2006 Canadian Clinical Practice Guidelines on the Management and Prevention of Obesity in Adults and Children [9] establish evidence-based procedures to guide the management and prevention of obesity at the individual and population level.

Recommendations include:

- "Health team to discuss and devise appropriate client-centred education, support and goals for comprehensive lifestyle modification therapy with client and, when appropriate, family members."
  Physiotherapists are integral ***members of the health assessment team****.*
- "Prescribe 30 minutes of daily activity of moderate intensity and, when appropriate, increase to 60 minutes or more daily."
  Physiotherapists design ***SAFE and APPROPRIATE daily activities*** *for overweight/obese individuals. Many people with obesity will have muscloskeletal problems such as back pain that could interfere with their doing the recommended 30 to 60 minutes of exercise per day. An assessment and therapeutic treatment plan by a physiotherapist will help remove risk barriers to exercise.*
- "Undertake regular reviews and reinforce goals for weight loss or maintenance, and prevention of weight regain."
  Physiotherapists ***motivate and support*** *individuals to maintain their exercise program, increasing their chance of successfully implementing exercise lifestyle changes.*

A systematic review of research [12] on the efficacy of exercise for treating overweight in children and adolescents (including 14 studies with 481 boys and girls of approx. 12 years) concluded that an aerobic exercise prescription of 155 – 180 minutes/week at moderate to high intensity is effective for reducing percent body fat in overweight children/adolescents (pooled SMD –0.4, 95% CI -0.7 to –0.1, p = 0.006). Further recent evidence suggests exercise benefits obese or overweight children beyond a reduction in weight. Bell et al. [13] found significant reductions in the risk for type 2 diabetes associated with increased fitness independent of weight loss. Nassis et al. [14] showed evidence that overweight and obese youth with higher fitness levels have decreased body fat. Woo et al. [15] demonstrated the efficacy of exercise to reduce obesity-related vascular dysfunction in overweight and obese youth.

Fast Facts

- A 2005 review [7] examined randomized clinical trials comparing diet and exercise combined interventions vs. diet alone for long-term weight loss. The six studies reported follow-up one year after initial intervention. Diet associated with exercise produced a 20% greater initial weight loss than diet alone (13 kg vs. 9.9 kg; z = 1.86 – p = 0.063, 95% CI). Although both groups partially regained weight, **the combined intervention also resulted in a 20% greater sustained weight loss after 1 year** (6.7 kg vs. 4.5 kg; z = 1.89 – p = 0.058, 95% CI).
- A complete physiotherapy assessment may test anthropometric characteristics, aerobic capacity/endurance, circulation, gait/locomotion/balance, muscle performance, pain, range of motion, and posture – all of which may affect exercise prescription for an obese individual [10,11].

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Contact Us

Yukon Territories Council
www.physiotherapynb.ca/Yukon.htm

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