



Inactivity as much a factor as age in development of joint and back pain

As Canadians get older and experience a growing level of aches and pains, many will chalk it up as part of the aging process. However, a national organization of physical therapists is encouraging people to consider lack of physical activity and weight gain as the more likely culprits.

“Aching muscles, sore knees, stiff hips and back pain frequently get attributed to the effects of aging,” says Lisa Carlesso, physical therapist and executive chair of the Canadian Academy of Manipulative Therapy (CAMT). “Although changes to muscle, joints and postures do occur, research suggests that a significant amount of the joint and back pain people experience as they get older may actually be the result of an expanding waistlines and a lack of physical activity.”¹

It’s a situation that is growing along with the country’s aging population. According to a report by the Canadian Population Health Initiative, 40 per cent of women and 58 per cent of men in Canada are overweight or obese.² And it’s not just adults who are increasingly fighting the battle of the bulge. Statistics Canada estimates that over one third of children in this country are overweight or obese. For children whose fat cells have reached their maximum size, those cells will then divide and increase in number, which they’ll retain for the rest of their lives and putting them at risk of developing more severe musculoskeletal problems as obese adults.

Such statistics are largely the result of a Canadian population in which less than half engage in regular physical activity. While many people recognize that the extra pounds put them at risk for heart disease, Type 2 diabetes and high blood pressure, many more don’t realize the increased rates of low back pain, joint osteoarthritis and degenerative changes in the spine that may also come with obesity.

“The spine and other body joints function best when we are at our ideal weight and use good posture,” says Carlesso. “As we place excess loads on these structures, it naturally puts stress and strain on them that results in pain and degeneration. Add in a lack of exercise and you’re at even greater risk for injury, as the muscles important for stability become weak and inflexible. The result is that simple activities such a walking and

¹ Janke E, Collins A, Kozak A. Overview of the relationship between pain and obesity: what do we know? Where do we go next? J Rehabil Res Dev.2007;44: 245-262

² Raine K. Overweight and Obesity in Canada: A Population Health Perspective. 2004. Available at: http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=GR_1608_E. accessed August 10, 2007

climbing stairs, which place forces equal to three to six times your body weight on the knees and hips, can contribute to joint wear and the development of osteoarthritis. It's the reason behind an estimated 69 per cent of all knee and 27 per cent of all hip replacements in middle-aged women."³

Staying active and managing your weight is the most obvious and effective solution to reducing the risk of developing such complications. Studies have shown that a reduction of as little as five per cent body weight can significantly improve low back pain and symptoms of osteoarthritis.⁴ Another option for those already suffering through joint and low back pain is manual therapy. In fact, the multimodal approach of manual therapy and exercise has been shown to be superior to other modes of treatment for joint pain. For those who cannot exercise due to pain and discomfort, a manual therapist can implement a combined program of low impact exercise, such as swimming, with joint manipulation that will help patients get back into a healthy, active lifestyle.

In Canada, the Canadian Academy of Manipulative Therapy has members coast-to-coast who can help relieve such pain and get patients back on their feet into a normal, active life. What sets CAMT physiotherapists apart from other physiotherapists is their advanced post-graduate diploma in Orthopaedic Manual Therapy. This specialized training allows them to use hands-on techniques to more specifically assess and treat individual joints and soft-tissues for injury and movement disorders. Manual therapy may include massage, stretching, mobilization or manipulation of joints and soft-tissue including muscle, tendon and ligament.

“As we age, our muscular strength and posture will inevitably change,” says Carlesso. “However, that doesn't mean we need to just accept joint and lower back pain as a part of getting older. The key to remember is that motion is lotion for the joints. Moderate activity, such as walking and aquatic exercise, helps to keep our knees, hips and back strong and flexible. With a healthy lifestyle and a well maintained weight, we can ensure that our golden years are some of our best years.”

About the Canadian Academy of Manipulative Therapists

The Canadian Academy of Manipulative Therapy is a group of skilled physiotherapists with extensive post-graduate education in manual therapy and clinical reasoning, who have passed an internationally recognized accreditation process. As a result, they have a comprehensive understanding of advanced manual therapy—a key component of the multi-modal approach. With over 370 members in ten provincial associations, Fellows of CAMT excel in such areas as sports injuries, spinal instabilities, lower limb/pelvic alignment disorders, whiplash injuries, and foot disorders. CAMT members have worked to improve the standards of manipulative and other manual therapy skills, encourage scientific research and promote new discoveries, while supporting their larger, national association the Canadian Physiotherapy Association.

³ Liu B, Balkwill A, Banks E, Cooper C, Green J, Beral V. Relationship of height weight and body mass index to the risk of hip and knee replacement in middle-aged women. *Rheumatology*.2007;46:861-867

⁴ Christensen R, Bartels W, Astrup A, Bliddal H. Effect of weight reduction in obese patients diagnosed with knee osteoarthritis; a systematic review and meta-analysis. *Ann Rheum Dis*.2007;66:433-439

The good and bad news about osteoarthritis

The bad news is that approximately one in ten Canadians suffers from osteoarthritis. Osteoarthritis (OA) occurs when the composition of the joint cartilage changes so that it has less water content, and therefore loses its ability to absorb weight-bearing forces. Over time, especially after age 40, this cartilage starts to fray and become rough. You may notice pain or stiffness in a joint, or swelling, loss of joint movement or deformity.

But, there is good news. The Canadian Academy of Manipulative Therapy has ten ways you can prevent OA or at least minimize its effects:

1. Maintain your ideal body **weight**. Women who are overweight have almost four times the risk of knee OA, and it's five times the risk in men. When you lose weight, you'll decrease the stress on the joints in your spine, hips, knees and feet.
2. Talk to a **physiotherapist** about what exercises will be helpful for you. Your therapist can give specific advice regarding your posture, and about modifying or returning to activity. If you have a muscle imbalance or a joint movement problem, these can be treated with hands on manual therapy and a specific strengthening and stretching program prescribed by your CAMT physical therapist.
3. Be **careful** at work and in your sports/hobbies. Wear protective equipment as needed, avoid repetitive movements and sustained positions, and get help if a task is too much for you to handle.
4. Start an **exercise** program. Exercise strengthens the muscles that support and protect your joints. This reduces the friction and wear and tear on the joint. Low impact exercise such as water aerobics, swimming, and bike ergometers minimize compression in the joints. Do something you enjoy, especially if it involves a friend, as you'll be more likely to stick with it.
5. **Don't overdo it**. Avoid the 'weekend warrior' habit. Exercising a few times per week, for 20-30 minutes, is better for your body than long infrequent sessions. Listen to your body; if you have pain for over an hour after you exercise, you need to decrease your intensity or duration in your exercise program.
6. Keep **moving**. Don't stay in one position for too long, such as at work or when relaxing. Movement helps to keep the joints lubricated, which helps with joint nutrition and health.
7. **Rest** frequently during the day and for short durations to take the load off your joints.
8. Use good **posture**. This will reduce the strain throughout the body, especially in the spine, the jaw, the hips, knees, and feet.
9. Wear proper **footwear**. Good shoes should have supportive heel, good shock absorption and be wide enough in the toe area so toes aren't compressed.
10. Talk to a **doctor** about your arthritis. A doctor can differentiate osteoarthritis from other types of arthritis, such as rheumatoid arthritis.

Additional information, including a research document written by Anita Gross, F-CAMT and associate clinical professor at McMaster University, is available at www.manipulativetherapy.org.

For interviews with a CAMT member in your community, please contact:

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