



## **Productivity Loss from Osteoarthritis Will Cost Canadian Economy \$17.5 Billion a Year by 2031**

Rising rates of osteoarthritis (OA) will cost the Canadian economy an estimated \$17.5 billion a year in lost productivity by 2031 as the disease forces greater numbers of people to stop working or work less, a study has found. The upsurge in work time loss comes just as Canadian productivity comes up against a momentous challenge: finding enough workers to replace retiring baby boomers after decades of low birth rates.

“Our findings underscore the importance of implementing public strategies to prevent OA while also developing ways to maintain the workplace productivity of people who have the disease,” Behnam Sharif, the research team lead, said. “Canada could lose a significant portion of its shrinking work force to osteoarthritis unless policies are developed now to sustain the employability of people who have pain and loss of function in their hips and knees.” Dr. Sharif is an Alberta Bone and Joint Health Institute post-doctoral fellow based at the University of Calgary.

OA is a leading cause of chronic pain and loss of mobility in Canada and is associated with diminished productivity and increased utilization of health care resources.

The main culprits are Canada’s aging population and its rising rate of obesity. There is a strong association between OA and advancing age and OA and obesity. Statistics Canada reports almost two-thirds of Canadian adults and 23% of children are overweight or obese. “These compelling demographic trends will increase the burden of OA and the associated disability among the working age population will become substantial in the coming years,” Dr. Sharif said.

The researchers, from the University of Calgary and Statistics Canada, also found that even if Canadians extended their working years, obesity in the younger population would continue to escalate the rate of OA and the associated productivity decline. This suggests Canada must develop policies to address both problems simultaneously.

The researchers examined work productivity information from the Statistics Canada Canadian Community Health Survey for 2003 on more than 7,000 Canadians aged 25 to 64 with OA. Using a simulation model, they projected a 13% increase in the working age population with OA, to 1.7 million in 2031 from 1.5 million in 2010, while the cost of lost productivity was projected to rise by 46%, to \$17.5 billion from \$12 billion over the same period. The results are published in [Osteoarthritis and Cartilage](#).

Almost 40% of the projected increase in productivity loss was due to the rising prevalence of OA and changes in demographics. About 60% of the increase was due to real wage growth over the period. The highest loss of productivity was with males and females 55 to 64 years of age.

Research team member Deborah Marshall said: “Estimating and projecting the productivity costs of work loss due to OA are critical steps to creating public health policies for meeting the growing OA challenge. Furthermore, it is essential that we identify the segments of the population incurring high

losses of productivity so that we can allocate the necessary resources to where they will produce the greatest benefit.”

Dr. Marshall is a professor in the Department of Community Health Sciences, University of Calgary, and director of Health Technology Assessment and Research for Alberta Bone and Joint Health Institute.

“The economic impact of osteoarthritis is staggering,” said Janet Yale, president and CEO of The Arthritis Society. “Not to be lost in those numbers, however, is the human impact: the lives of each individual and family that is disrupted by this insidious and all-too-pervasive disease. Finding solutions to address the growing impact of OA must be a priority shared by governments, employers and the health community in partnership – not just for the compelling economic reasons, but for the equally compelling difference it will make in the lives of Canadians.”

**Alberta Bone and Joint Health Institute** is Canada’s only independent institute for channeling knowledge into better bone and joint health care services and the nation’s leading organization for engaging stakeholders in adopting best practices. ABJHI is a not-for-profit institute and a registered charity. For more information and to make a donation, visit [www.abjhi.com](http://www.abjhi.com).

**The Arthritis Alliance of Canada** is a coalition of over 35 organizations representing patient groups, arthritis consumer organizations, professional organizations, not-for-profits, government, industry and researchers. The Alliance’s goal is to improve the lives of Canadians with arthritis. While each member organization continues its own work, the Alliance provides a central focus for national arthritis-related initiatives. For more information, visit [www.arthritisalliance.ca](http://www.arthritisalliance.ca)

**The Arthritis Society** has been setting lives in motion for over 65 years. Dedicated to a vision of living well while creating a future without arthritis, The Society is Canada's principal health charity providing education, programs and support to the over 4.6 million Canadians living with arthritis. Since its founding in 1948, The Society has been the largest non-government funder of arthritis research in Canada, investing over \$195 million in projects that have led to breakthroughs in the diagnosis, treatment and care of people with arthritis. The Arthritis Society is accredited under Imagine Canada's Standards Program. For more information and to make a donation, visit [www.arthritis.ca](http://www.arthritis.ca).

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