



Arthritis

The Canadian Institutes of Health Research (CIHR) is the Government of Canada's agency for health research. Through CIHR, the Government of Canada invested approximately \$17.4 million in 2006-07 across Canada in research on arthritis.

The Facts

- Arthritis comprises more than 100 conditions including lupus, fibromyalgia, gout, temporo-mandibular joint pain and scleroderma.
- The most common type of arthritis in Canada is osteoarthritis, affecting three million Canadians, or 1 in 10. Long-term disability accounted for almost 80% of the economic costs of arthritis in 1998, at nearly \$3.5 billion. The 35-64 year age group incurred 70% of these costs.
- Rheumatoid arthritis is the second most common type of arthritis, affecting 300,000 Canadians, or 1 in 100. It is an autoimmune disorder, in which the immune system attacks healthy joints, resulting in damage to cartilage, bone, tendons and ligaments. Twice as many women as men get rheumatoid arthritis. It most commonly appears between the ages of 25 and 50.
- For all age groups, arthritis disables two to three times more workers than all other chronic conditions.
- Musculoskeletal diseases cost Canadians \$16.4 billion every year, the second highest cost of disease after heart disease.



About CIHR

The Canadian Institutes of Health Research (CIHR) is the Government of Canada's agency for health research. CIHR's mission is to create new scientific knowledge and to catalyze its translation into improved health, more effective health services and products, and a strengthened Canadian health-care system. Composed of 13 Institutes, CIHR provides leadership and support to more than 11,000 health researchers and trainees across Canada.

Finding Solutions

Understanding the genetic causes of psoriatic arthritis

Psoriatic arthritis affects as many as 30% of persons living with psoriasis, a common skin condition. Researchers want to better understand how psoriasis can lead to arthritis. In a study of patients from Newfoundland and Labrador, CIHR-supported researcher Dr. Proton Rahman of Memorial University pinpointed a specific genetic variant for a type of protein known as vascular endothelial growth factor. Even though this growth factor is associated with the development of psoriasis, the variant seems to offer protection against psoriatic arthritis. The findings could eventually lead to new treatments for this condition.

Rheumatoid arthritis – Better education needed for family doctors

People suffering from rheumatoid arthritis (RA) need early and aggressive treatment, using a class of drugs that is known to slow progression of this debilitating disease. However, work by CIHR-supported researcher Dr. Diane Lacaille of the University of British Columbia has found that many patients are not receiving the drugs they need, especially if they're being treated by their family doctor. In a study of close to 30,000 patients in B.C. suffering from RA, Dr. Lacaille found that only 10% of those receiving care by family physicians were prescribed disease-modifying antirheumatic drugs (called DMARDs) over a five-year period. In comparison, 76% of patients seen by rheumatologists were prescribed these drugs. These findings will help develop new ways to address these gaps in care and improve the lives of Canadians living with RA.

The high costs of juvenile idiopathic arthritis

Juvenile idiopathic arthritis (JIA), which affects about one in 1,000 Canadian children, exacts a high cost from children and their parents. New findings by CIHR-supported researcher Dr. Sasha Bernatsky at McGill University suggests parents face an additional \$1,700 per year in costs for children with JIA compared to children without JIA. Parents of children with JIA also face salary losses three times higher than parents of children without JIA, the result of having to take time off for appointments and to care for a sick child. On average, children with JIA miss one to two weeks of school each year. Dr. Bernatsky's research will lead to a better understanding of the economic costs of this disease and help improve health-care policy and access to care.



The Researchers

Dr. Monique Gignac – Helping Canadians with arthritis lead productive lives

Arthritis is the leading cause of physical disability in Canada. As our population ages, the number of people with arthritis is expected to increase, particularly among adults in their highest earning years (ages 45-65).

Disability associated with arthritis costs the Canadian economy about \$4.4 billion per year. CIHR-funded researcher Dr. Monique Gignac of the University of Toronto and her team are completing a series of studies examining the economic costs of disability and efforts made by employees and employers to manage this burden.

The investigators followed almost 500 employed people with osteoarthritis, rheumatoid arthritis or both for a period of between five and six years. They determined that the average economic cost of arthritis disability is \$11,500 per

year per person. Of this average cost, 41% is due to lost productivity, 37% is a result of stopping working or changing jobs and the remaining 22% is due to decreased working hours and/or absenteeism.

The research also underlined that, while disability caused by arthritis creates major job stress, employees want to stay in the workforce and are trying to make changes that will allow them to do so.

"A few things surprised us," says Dr. Gignac. "For example, we found that many people are not giving up their jobs, but making changes at work. For instance 21% of our study participants made a permanent change from full- to part-time work."

Dr. Gignac and her team also found people making many small changes to help manage their disability. For example, some people worked a longer day to take more rest breaks. People also reorganized their work space to reduce or avoid lifting, used a stool to raise their legs or replaced their computer mouse.

Dr. Gignac expects that her team's latest study findings will be published later in 2007.

