



Occupational Health
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de l'Ontario Inc.

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Arthritis

What is arthritis?

Arthritis is an umbrella term referring to over 100 different conditions associated with damage to the joints of the body (Figure 1). The cartilage found at the end of the bones within a joint deteriorates. The joint loses its shock absorption capabilities and the bones of the joint do not glide smoothly across each other. This causes inflammation within the joint. There are many types of arthritis including osteoarthritis, rheumatoid arthritis, gout, lupus, and fibromyalgia.

Facts about arthritis

- ▼ Arthritis affects more than 4 million Canadians
- ▼ Arthritis is the leading cause of long-term disability in Canada. Arthritis accounts for \$700 million in short term disability and \$5.1 billion in long term disability.
- ▼ Half of those of working age who have arthritis disabilities are not in the labour force due to their disability
- ▼ The rapid increase of people with arthritis is equivalent to 100,000 per year, 8,000 per month, 2,000 per week, or 300 per day.

Types of arthritis

Osteoarthritis (OA)

OA is a degenerative joint disease in which the cartilage that covers the end of bones deteriorates. This causes pain and loss of movement as bone begins to rub against bone.

Rheumatoid arthritis (RA)

RA is an autoimmune disease in which the joint lining becomes inflamed as part of the body's immune system response. It is one of the most serious forms of arthritis and affects mostly women.

Gout

Gout is the result of a defect in body chemistry in which the body has too much uric acid. Uric acid is naturally produced in the body. The condition of gout involves the creation of too much uric acid or the inability to excrete it in the urine. Gout affects small joints, especially the big toe. Gout can be completely controlled through diet modification and medication.

Lupus (Systemic Lupus Erythematosus)

Lupus causes the body's immune system to stop working properly. The immune system begins to attack healthy tissues causing them to become swollen and painful.

Fibromyalgia (FM)

FM is characterized by widespread pain that is in the muscles rather than the joints. It results in tender points, sleep disturbance, fatigue, stiffness (particularly in the morning), anxiety, irritable bowel syndrome, neurological symptoms (e.g., dizziness, numbness, tingling, impaired thinking ability), exercise intolerance (inability to perform activity), and depression (Bennett, 2005).

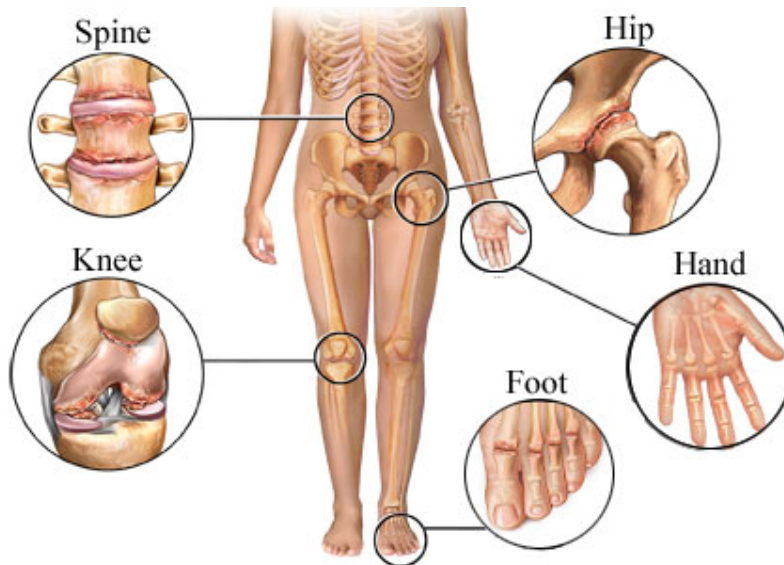


Figure 1: Joints affected by Arthritis.

Source: <http://health.yahoo.com/media/healthwise/nr55552009.jpg>

Arthritis in the workplace

Arthritis can develop on a gradual basis as a result of persistent workplace forces on the joints (Dillon, 2006).

Work related risk factors contributing to osteoarthritis

- ▼ Static postures
- ▼ Awkward postures
- ▼ Vibration
- ▼ Heavy Loads
- ▼ Repetition
- ▼ Trauma
- ▼ The gait cycle

Other risk factors

- ▼ Obesity
- ▼ Age

Managing arthritis and lifestyle modification

Weight control, low impact exercise, and rest are the three most important lifestyle modifications to be made for an arthritic person. Applying heat to the arthritic joint before exercise will warm up surrounding muscles and tendons for exertion. Applying cold after exercise will reduce pain and swelling. A diet with reduced fat, raw sugar, and processed food will help manage body weight. Fruits, vegetables, and whole grains are important for supplying many vitamins and minerals that help to reduce arthritic symptoms.

Arthritis & employment study

In a study initiated in 2000 by The Arthritis Society, the goal was to help Canadians with arthritis remain employed by better understanding ways people manage their arthritis in the workplace. Out of 492 people with arthritis, 10% of respondents said they have used vacation days to deal with arthritis; 35% have missed workdays in the last year due to their arthritis; and 38% said their workday has been interrupted for 20 minutes or more in the last 6 months due to their arthritis. Interruptions include taking breaks or spreading out their time at work. Furthermore, 30% have increased their daily planning to avoid problems related to their arthritis and 22% said that as a result of their arthritis, they could not take on new projects or responsibilities at work.

This is a strong indication that arthritis can affect work activities and perhaps career goals. Many arthritis sufferers will use up all of their vacation and/or sick time to allow themselves to recuperate at home in order to continue working. This places a huge strain on many workplaces to find replacements and/or complete work tasks.

Can my day to day work activities cause me to develop arthritis?

There is conflicting evidence related to the interaction of arthritis and work activities. It is well-known that work activities cause stress on our bodies, and this gradual stress can lead to tissue degeneration. This can lead to OA, which is commonly known as the “wear and tear” arthritis. Here are some examples of studies related to risk factors for developing OA while performing certain work activities.

Cooper and colleagues (1994) performed a study looking at repetitive workplace risk factors that can lead to OA of the knee. They determined that:

- ▼ workers who squat more than 30 minutes per day are 6.9 times more likely to develop OA,
- ▼ workers who kneel more than 30 minutes per day are 3.4 times more likely to develop OA, and
- ▼ workers who climb more than 10 flights of stairs per day are 2.7 times more likely to develop OA.

Overall, the study determined that each of these ergonomic risk factors increases the risk of developing OA, however, regular heavy lifting augments the risks associated with kneeling and squatting. Therefore, workers who perform all of these tasks are more likely to develop OA.

In a 2003 study by Pope and colleagues, they determined that people who sit frequently throughout the day, walk more than 2 miles a day on rough ground (for more than 7 years) and those lifting heavy weights can develop OA of the hip at a greater risk than those not exposed to these factors in their workplace. Persons who walk on rough ground are at a 2.65 times greater risk of developing OA of the hip from this type of work activity.

Conclusion

Arthritis is a severely disabling disease. If you are worried about developing the disease from your work tasks, contact OHCOW for an ergonomic assessment of your job. If you are concerned about developing arthritis, or feel you may have it, and you have never been diagnosed, see your family physician.

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If you would like to learn more about arthritis in the workplace, please contact the Occupational Health Clinics for Ontario Workers Inc. in Sudbury (705)523-2330

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