



- **FACT SHEET No. 11**

Joint Pain Epidemiology

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Musculoskeletal pain, especially joint and back pain, is the most common type of chronic pain. The most common cause of joint pain is related to arthritis, of which there are numerous types. Patients routinely seek medical attention for joint pain, and it is one of the leading causes of disability.

In the United States, based on data from the National Health Interview Survey, an estimated 52.5 million (22.7 percent) of adults have self-reported doctor-diagnosed arthritis, and 22.7 million (9.8 percent) have arthritis and arthritis-attributable activity limitation. It is estimated that by the year 2030, 67 million—one in every four American adults—will have doctor-diagnosed arthritis. About 30 percent of adults report some form of joint pain within the prior 30 days, with the knee joint being the most common site. A 2007 European Commission Eurobarometer survey found that 22 percent of respondents reported musculoskeletal issues— higher than any other health condition.

Osteoarthritis is the most common form of arthritis, accounting for more disability among the elderly than any other disease. The disease involves the whole joint, is related to maladaptive repair responses resulting in pathologic changes in numerous joint tissues, and increases in prevalence with age. Not all individuals with radiographically evident disease experience pain. Symptomatic osteoarthritis generally affects from 10 percent to 15 percent of populations worldwide, with 27 million affected in the United States, and 8.5 million affected in the United Kingdom. Data from the European Health Interview Surveys in seven countries demonstrated a wide variation in prevalence of doctor-diagnosed osteoarthritis, ranging from 5 percent to 25 percent (age-standardized range 3 percent to 18 percent). The knee, hand, and hip are common sites of osteoarthritis.



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Low back pain can be related to osteoarthritic changes in the spine, although the etiology of low back pain is multifactorial and not necessarily related to arthritis. The heterogeneous nature of low back pain is also reflected in its reported point prevalence, ranging from 8 percent to 39 percent of the population, and lifetime prevalence has been reported to vary from 60 percent to 85 percent. Many people will experience one or more episodes of low back pain in their lives.

Gout, a crystal-related arthritis, is now the most common form of inflammatory arthritis. It is characterized by acute painful flares that eventually can become a chronic arthritis. Gout presently affects 1 percent to 4 percent of various populations around the world, with some populations, such as those of Maori ancestry, having a higher prevalence (6 percent). Rheumatoid arthritis, the most common form of an autoimmune systemic inflammatory arthritis, is characterized by a typically symmetric polyarthritis with joint pain, swelling, and substantial morning stiffness. Rheumatoid arthritis presently affects less than 1 percent of populations worldwide.

In terms of global years lived with disability, low back pain ranked first, neck pain ranked fourth, osteoarthritis ranked eleventh, and other musculoskeletal disorders ranked sixth. Further, these effects were fairly consistent through the different geographic regions. Thus, worldwide, joint pain and other musculoskeletal conditions are responsible for a substantial public health burden. In addition to contributing to pain, these conditions are associated with functional limitations, participation restrictions, and disability. Further, some arthritis conditions have been associated with increased mortality, either directly related to the underlying arthritis, the associated comorbidities, adverse outcomes, and/or adverse events related to medications.

The economic impact of joint pain is also substantial. Arthritis-related conditions accounted for the largest increase in health-care expenditures in the United States from 1996 to 2011 (192 percent), according to the Medical Expenditures Panel Survey. The mean per-person total direct costs in 2011 U.S. dollars for arthritis and joint pain in the United States was \$9,556 for the years 2009-2011; the total aggregate direct costs were \$580.9 billion.

Across the European Union, musculoskeletal conditions are among the largest diagnostic groups in terms of health-care expenditures. In the UK, the estimated cost of general-practitioner consultations for musculoskeletal conditions in 2003 was £1.34 million, second only to cardiorespiratory conditions. In Germany, the cost of diseases of the musculoskeletal system was €28.5 billion in 2008, accounting for more than 11 percent of the total illness costs that year. The productivity costs to the economy add further to these costs, in the form of absences from work, being less productive at work, and early retirement due to joint pain.

In summary, joint pain is highly prevalent, disabling, and economically costly to societies worldwide.



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