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Knee pain common complaint in middle-aged and mature women

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New research shows 63% of women age 50 and older reported persistent, incident, or intermittent knee pain during a 12-year study period. Predictors for persistent pain included higher body mass index (BMI), previous knee injury, and radiographic osteoarthritis (OA). Details of this longitudinal study are available in *Arthritis & Rheumatism*, a journal published by Wiley-Blackwell on behalf of the American College of Rheumatology (ACR).

According to the ACR more than 27 million Americans over age 25 suffer from OA—a leading cause of disability worldwide—with pain being the most problematic symptom for patients. The economic burden from OA is substantial, with reports estimating the U.K. annual loss of productivity cost at £3.2 billion. In the U.S., the Centers for Disease Control and Prevention (CDC) estimates job-related OA costs $3.4 to $13.2 billion per year. Prior studies suggest knee OA, specifically, is associated with impaired physical function and substantial societal burden. In fact, the CDC reported close to 500,000 total knee replacements were performed in the U.S. in 2004 with more than $14 billion spent on hospital costs related to the procedure.

"Our study is the first community-based investigation of knee pain patterns using multiple assessment points over a 12-year period," explains lead author Nigel Arden, MSc, MD, a Professor of Rheumatology at the University of Oxford in the UK. "Understanding the prevalence and predictors of knee pain is the first step in developing comprehensive pain assessment plans that could lead to more targeted

treatment options for those burdened by OA."

For the present study, researchers used data obtained from participants of the Chingford Study, a prospective population-based study of OA and osteoporosis established in 1989. More than 1,000 women between the ages of 44 and 57 years (median age of 52 years) participated, and were representative of women in the U.K. general population in terms of weight, height and smoking characteristics. At the end of the 12-year study, data relating to self-reported knee pain was analyzed and used to classify the 489 remaining participants into four pain groups—asymptomatic, persistent, incident, and intermittent.

The team found a prevalence of 44% for "any days of pain" and 23% for "pain on most days of the previous month" in the cohort at the end of the study period. Of those experiencing "any pain" versus "pain on most days," 9% and 2% had persistent pain; 24% and 16% had incident pain; and 29% and 18% had intermittent pain, respectively. Researchers determined that a higher BMI predicted persistent and incident pain patterns, while radiographic OA was a predictor of persistent pain. Those reporting knee injury were likely to have persistent or intermittent pain patterns.

The authors suggest a primary strength of this study is that it describes the natural history of knee pain over a long-term period and incorporates data from multiple time points. Study findings confirm the presence of variable pain patterns, with few women consistently reporting knee pain at each measurement time point. Professor Arden concludes, "Validation of our findings through reproduction in other patient groups is needed to advance knowledge of knee pain predictors that will ultimately enhance prevention and treatment strategies for those with OA."

More information: "Self-Reported Knee Pain Prevalence in a Community-Based Cohort Over 12 Years." A. Soni, A. Kiran, D. Hart,

K. M. Leyland, L. Goulston, C. Cooper, M. K. Javaid, T. D. Spector, N. K. Arden. *Arthritis & Rheumatism*; Published Online: December 19, 2011 (DOI: 10.1002/art.33434).