

Osteoarthritis incidence significantly higher among US military personnel

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New research shows significantly higher osteoarthritis (OA) incidence rates in military populations than among comparable age groups in the general population. The magnitude of the difference in OA rates between military service members and the general population also increased with advancing age category. Black service members had higher OA rates than white military personnel or those in other race categories according to the study findings published in *Arthritis & Rheumatism*.

Close to 27 million Americans age 25 and older have OA and this disabling condition accounts for 25% of all arthritis-related healthcare visits. OA is the most common form of [arthritis](#) and is traditionally considered a disease affecting older individuals, with incidence rates increasing with age. However, recent reports suggest the majority of adults with OA are younger than 65. Prior studies have shown that occupational physical demands, traumatic joint injury, and activities involving repetitive joint movement all contribute to OA development.

"Surprisingly, little is known about the OA incidence in younger physically active populations," explains Kenneth Cameron, PhD, ATC, Director of Orthopedic Research at Keller Army Hospital in West Point, New York. "The active duty U.S. military [population](#) provides an excellent opportunity to examine the incidence of OA in a young and physically active population that is regularly exposed to occupational activities with repetitive joint movements."

Using the Defense Medical Surveillance System (DMSS), researchers identified cases of physician-diagnosed OA in U.S. service members between 1999 and 2008. A total of 108,266 incident cases of OA were identified in this military population that experienced close to 14 million person-years at risk to the disease during the 10-year study period. The unadjusted incidence rate among all active duty U.S. service members during the same time frame was 7.86 per 1,000 person-years.

Demographic analysis revealed that women had a 20% higher OA incidence rate than men. The incidence of OA in service members who were 40 years of age or older was 19 times higher than for personal 20 years of age or younger. Military personnel who are black were 15% more likely to be diagnosed with OA than those who are white, and 26% more likely than those service personnel in other racial categories (Latinos, Asians, Native Americans, and other racial groups). White service members had a 10% higher OA rate than those in the other category for race.

Further analysis found that junior and senior enlisted service members and those serving in the Army experienced the highest incidence rates for OA. The authors suspect military personnel in these groups engage in regular knee and hip bending, and experience medium to very heavy physical demands in their occupations on a regular basis. [Military](#) service members are also at higher risk for traumatic joint injuries and prior studies have shown joint trauma to be a risk factor for OA. "Further research is needed to determine the incidence of post-traumatic OA and to explore the risk factors associated with this condition among [military personnel](#)," concluded Dr. Cameron.

More information: "Incidence of Physician Diagnosed Osteoarthritis among Active Duty United States Military Service Members." Kenneth L. Cameron, Mark S. Hsiao, Brett D. Owens, Robert Burks, Steven J. Svoboda. *Arthritis & Rheumatism*; Published Online: June 29, 2011

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