

# Multifactorial mechanisms underlie leg weakness in hip OA

August 9 2012

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(HealthDay) -- Multiple factors contribute to leg weakness in people with hip osteoarthritis (OA), with muscle atrophy being the strongest contributor, according to the results of a systematic review published online July 25 in *Arthritis Care & Research*.

Aderson Loureiro, B.Phys.Ed., of the Griffith Health Institute in Gold Coast, Australia, and colleagues conducted a systematic review of 13 cross-sectional studies to determine whether leg muscle strength is affected in people with unilateral hip OA.

A review of the literature revealed strong evidence to suggest that the muscle strength of the leg affected with hip OA is weaker than that of

the non-affected leg or that of healthy control legs. Moderate evidence indicated that the size and quality of the muscle is also affected by hip OA. Evidence for muscle inhibition within the affected limb of persons with hip OA was limited.

"The existing literature suggests unilateral hip OA is characterized by generalized muscle weakness of the affected limb. The mechanisms underlying muscle weakness are multifactorial, and include, in order based on strength and amount of available evidence, a combination of reduced muscle size (atrophy), muscle inhibition, and decreased muscle quality," the authors write. "Findings of this review suggest the need to address the issue of muscle weakness in the clinical management of hip OA."

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Citation: Multifactorial mechanisms underlie leg weakness in hip OA (2012, August 9) retrieved 4 May 2024 from  
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