

# Five genes tied to osteoarthritis progression

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(HealthDay)—Five genes may serve as biomarkers for osteoarthritis (OA) progression, according to a study published online Feb. 2 in the *International Journal of Rheumatic Diseases*.

Beiyue Wang, from Jinling Hospital in Nanjing, China, and colleagues conducted microarray analysis on five OA acetabular labrum samples and three healthy control samples. Differentially expressed [genes](#) (DEGs) were assessed, and functional enrichment analysis and protein-protein interaction (PPI) network analysis were conducted.

The researchers identified 141 DEGs (44 were up-regulated and 97 were down-regulated). There was significant enrichment in intracellular signal transduction function among up-regulated genes (including *CDH2* and *WNT5A*), while down-regulated genes (such as *KDR*, *FLT1*, and *CDH5*) were correlated with cardiovascular system development. Striking nodes in the PPI network included *FLT1*, *KDR*, *CDH2*, and *CDH5*.

"Intracellular signal transduction and cardiovascular system development might play significant roles in the destruction of labrum during OA progression," the authors write.

**More information:** [Abstract](#)  
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