

Smoking ups pseudarthrosis after 2-level fusion of lumbar spine

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(HealthDay)—For patients undergoing posterolateral fusion (PLF) of the lumbar spine, smoking is associated with increased rate of pseudarthrosis among those undergoing two-level, but not single-level, PLF, according to research published in the Oct. 1 issue of *Spine*.

Mohamad Bydon, M.D., from the Johns Hopkins University School of Medicine in Baltimore, and colleagues conducted a retrospective medical record review involving all [adult patients](#) who underwent single- and two-level instrumented PLF without interbody devices for degenerative spine

disease. Two hundred eighty-one [patients](#) were included from a single institution during a 21-year period. Of the patients, 82.21 percent were [nonsmokers](#) and 17.9 percent were [smokers](#). Patients were followed for an average of 53.5 months.

The researchers observed no significant difference in the complication rates for nonsmokers versus smokers (3.57 versus 7.69 percent; $P = 0.353$) among those undergoing single-level fusion. Pseudarthrosis occurred in 9.82 percent of nonsmokers and 7.69 percent of smokers ($P = 0.738$). Complication rates were not significantly different for nonsmokers and smokers undergoing two-level PLF (6.72 versus 4.17 percent; $P = 0.638$), but the smokers group had significantly higher pseudarthrosis rates (29.17 versus 10.92; $P = 0.019$).

"The findings in this study suggest that smoking has a significant impact on pseudarthrosis rates after two-level PLF of the lumbar spine, but not necessarily on single-level PLF," the authors write.

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