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Disk Degeneration and Low Back Pain: Are They Fat-Related Conditions?

Low back pain (LBP) is the world's most debilitating condition. Disk degeneration has been regarded as a strong determinant associated with LBP. Overweight and obesity are public health concerns that affect every population worldwide and whose prevalence continues to rise. Studies have indicated strong associations between overweight/obesity and disk degeneration as well as with LBP. This broad narrative review article addresses the various mechanisms that may be involved leading to disk degeneration and/or LBP in the setting of overweight/obesity. In particular, our goal is to raise awareness of the role of fat cells and their involvement via altered metabolism or the release of adipokines as well as other pathways that may lead to the development of disk degeneration and LBP. Understanding the role of fat in this process may aid in the development of novel biological therapies and technologies to halt the progression or regenerate the disk. Moreover, with genetic advancements and the appreciation of genetic epidemiology, a more personalized approach to spine care may have to consider the role of fat in any preventative, therapeutic, and/or prognosis modalities toward the disk and LBP.

椎間盤退變和下腰痛：這些是與肥胖有關的病況嗎？

下腰痛（LBP）是世界上最人衰弱的病況。椎間盤退變一直被視為與LBP有關的重要決定性因素。超重和肥胖是公共健康問題，影響到全球人口，而其普遍性持續上升。有研究指出超重/肥胖和椎間盤退變以及與LBP之間有明顯的關聯。本文記敘了所回顧的文獻，他們在超重/肥胖的設定下，探討了不同可能導致椎間盤退變和/或LBP的運行機制。尤其是我們的目標是提高對脂肪細胞的作用和它們參與透過改變代謝或釋放脂肪激素以及其通路，可能導致椎間盤退變和下腰痛的認識。理解脂肪在這個過程中的作用可能有助於發展新的生物療法和技术以制止椎間盤退變或使椎間盤重生。此外，隨著遺傳學的進步和遺傳流行病學的理解，在針對椎間盤和LBP的任何預防，治療和/或預後方式，更加個性化的脊椎保健可能要考慮到脂肪的作用。