

## **Obesity is associated with osteoarthritis**

Tom Hsiung, m.Pharm., B.S.

### **Obesity is associated with osteoarthritis**

Osteoarthritis is not uncommon among the elderly population. There are some risk factors associated with osteoarthritis, and one of them is obesity. A body of evidence supports the contributing role that obesity plays in the development of osteoarthritis. One longitudinal cohort study (Misra et al., 2019) found that people with obesity have an increased risk for osteoarthritis (adjust RR: 2.05, 1.56-2.68). A meta-analysis of prospective studies (Zheng & Chen, 2015) found overweight is associated with knee osteoarthritis (synthesized RR, 2.45, 1.88-3.20).

Other evidence supports the connection between obesity and the progression and symptoms of osteoarthritis. A cross-sectional study (Leila et al., 2023) targeting people with knee osteoarthritis found both obesity and abdominal obesity are associated with symptoms, function, and radiographic severity of the disease. Another prospective cohort study (Hussain et al., 2019) of patients with osteoarthritis found, compared with the cohort of normal PCS scores without obesity, that those with normal PCS scores and obesity have a two-fold increase in adjusted HR for knee arthroplasty.

Therefore, alleviating obesity is a potential therapeutic target that is beneficial for both the prevention and therapy of osteoarthritis.

## References

- Misra, D., Fielding, R. A., Felson, D. T., Niu, J., Brown, C., Nevitt, M., Lewis, C. E., Torner, J., & Neogi, T. (2019). Risk of Knee Osteoarthritis With Obesity, Sarcopenic Obesity, and Sarcopenia. *Arthritis & Rheumatology*, 71(2), 232–237. <https://doi.org/10.1002/art.40692>
- Zheng, H., & Chen, C. (2015). Body mass index and risk of knee osteoarthritis: systematic review and meta-analysis of prospective studies. *BMJ Open*, 5(12), e007568. <https://doi.org/10.1136/bmjopen-2014-007568>
- Leila, R., Rawdha, T., Aicha, B. T., Olfa, S., Selma, B., Ines, M., & Leila, A. (2023). Correlation between Abdominal Obesity and Pain in Knee Osteoarthritis. *Current Rheumatology Reviews*, 19(2), 174–179. <https://doi.org/10.2174/1573397118666220802123912>
- Hussain, S., Wang, Y., Shaw, J., Wluka, A., Graves, S., Gambhir, M., & Cicuttini, F. (2019). Relationship of weight and obesity with the risk of knee and hip arthroplasty for osteoarthritis across different levels of physical performance: a prospective cohort study. *Scandinavian Journal of Rheumatology*, 48(1), 64–71. <https://doi.org/10.1080/03009742.2018.1458148>