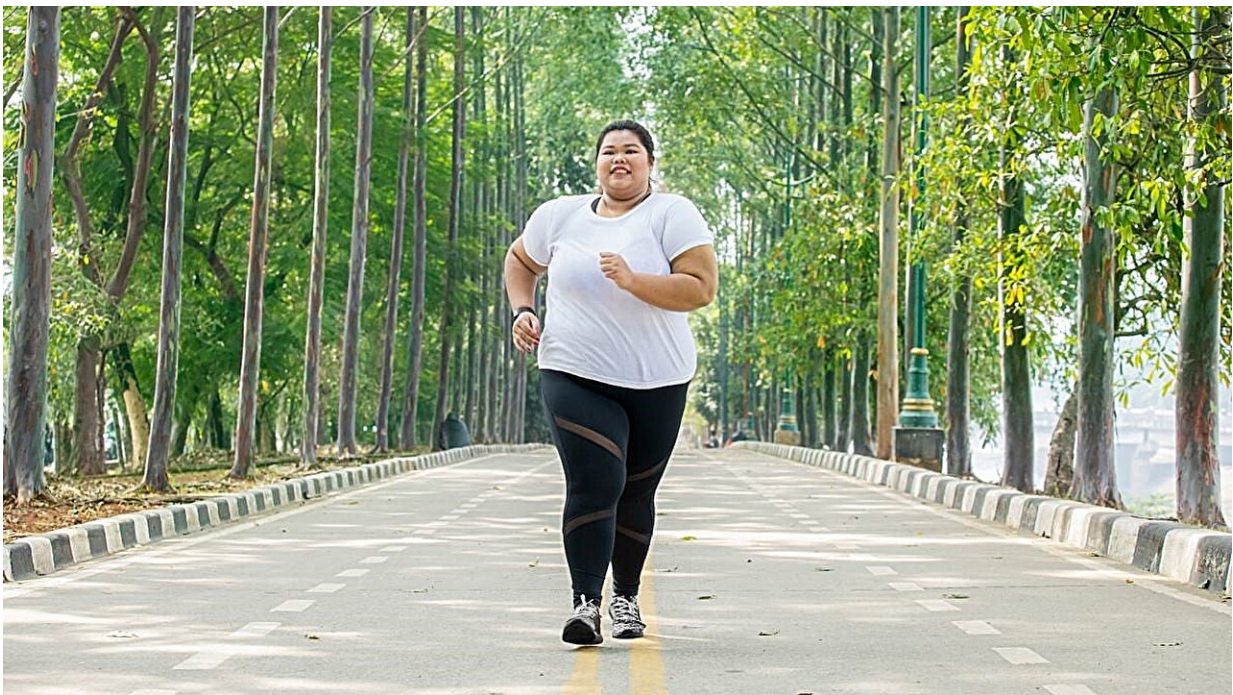


Exercise and GLP-1 RA appears effective for weight loss while preserving bone mineral density

June 27 2024, by Elana Gotkine



For adults with obesity, without diabetes, combining exercise with the glucagon-like peptide-1 receptor agonist (GLP-1 RA), liraglutide, is effective for weight loss, while preserving bone health, according to a study [published](#) online June 25 in *JAMA Network Open*.

Simon Birk Kjær Jensen, Ph.D., from the University of Copenhagen in Denmark, and colleagues examined [bone health](#) at clinically relevant sites after diet-induced [weight loss](#) followed by a one-year intervention with [exercise](#), liraglutide, or both in a secondary analysis of a randomized trial involving adults aged 18 to 65 years with obesity, without diabetes. After an eight-week low-calorie diet, participants were randomly allocated to exercise alone, the GLP-1 RA liraglutide alone, the combination, or placebo for 52 weeks (48, 49, 49 and 49 participants, respectively).

The researchers found that the total estimated mean change in weight losses during the study was 7.03 kg in the placebo group and 11.19, 13.74, and 16.88 kg in the exercise, liraglutide, and combination groups, respectively. Bone mineral density (BMD) was unchanged in the combination group versus the placebo group at the hip and lumbar spine. BMD decreased for the liraglutide versus the exercise group at the hip and spine (mean changes, -0.013 and -0.016 g/cm², respectively).

"Our findings highlight the importance of combining exercise with GLP-1 RA treatment for bone health," the authors write.

Novo Nordisk supplied the liraglutide and placebo pens; Cambridge Weight Plan supplied low-calorie meal replacement products.

More information: Simon Birk Kjær Jensen et al, Bone Health After Exercise Alone, GLP-1 Receptor Agonist Treatment, or Combination Treatment, *JAMA Network Open* (2024). [DOI: 10.1001/jamanetworkopen.2024.16775](#)

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