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## ANNALS OF THE RHEUMATIC DISEASES

Moderate drinking does not increase risk of brittle bones in women

[The effect of moderate alcohol consumption on bone mineral density: a study of female twins Online First: published ahead of print DOI 10.1136/ard.2004.022269]

Moderate drinking seems to keep brittle bones at bay in women, suggests a study of identical twins published ahead of print in the Annals of the Rheumatic Diseases.

The authors base their findings on 46 pairs of identical female twins out of an initial sample of 911 pairs surveyed.

Within each twin pair, one twin drank very little while the other drank moderately. In this way the effect of alcohol on bone could be assessed, taking into account influential genetic and environmental factors.

The twins' bone mineral density was measured at the hip and spine, while chemical markers of bone turnover were measured in their morning urine.

Moderate drinking - an average of eight units of alcohol a week - was associated with significantly denser bones both at the spine and the hip than little alcohol consumption. Smoking was also associated with thinner bones.

The results showed no clear link between indicators of bone turnover and alcohol intake, leading the authors to suggest that the benefits of alcohol are not exerted through bone formation or resorption. Instead, they suggest that alcohol might improve the micro-architecture of the bone.

This study confirms that consumption of moderate alcohol by women is not deleterious to bone health, and may even be beneficial, comment the authors. At these levels of intake, there would be very little risk of falls contributing to fracture rate, which some have claimed might cancel out any benefits to bone, they add.

But the findings are likely to add to the controversy about the role of alcohol in the development of osteoporosis (brittle bone disease).

However, the authors say that some previous research has failed to take smoking into account, or was not designed primarily to look into bone health.

As women are drinking more, it is important that healthcare professionals know what amount of alcohol to recommend to women to maintain optimal bone

health, they say.

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