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Commentary

Disturbances of normal menstrual function are known to occur following chronic, high intensity exercise in female athletes. The resultant low levels of sex steroids can result in bone loss, particularly from the lumbar spine. The lower bone density appears to be associated with a greater number of fractures, particularly stress fractures. Much less is known about the long term effects of intense exercise on reproductive function or bone density in male athletes. This review summarises the published reports on testosterone concentrations, bone density, and exercise in male athletes. The limited data suggest that bone density may be reduced, but that this is not always accompanied by lowered testosterone concentrations. There are, however, various technical problems with many of the studies and these are clearly highlighted. With the increasing participation in endurance sports, it is important to highlight any potential detrimental effects of the exercise. There is a need for larger, more thorough studies of the incidence of osteopenia in male athletes and the association with altered reproductive function and the incidence of fractures.

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