

## Letter to the Editor

### Optimising whole body vibration training for use in older people

SIR—Brooke-Wavell and Mansfield rightly point out that whole body vibration exercise may prove useful for older people who cannot perform conventional exercise [1]. Perhaps its greatest attraction to clinicians is that it involves minimal active movement by the participant, such that it has potential for use in the rehabilitation of very immobile patients who are not improving with more conventional rehabilitation techniques. It may also have a role in preventing sarcopenia caused by prolonged bed rest [2]. The potential dangers of vibration and the paucity of data on the best protocol to use in older people are well highlighted in their editorial. There are obvious practical and ethical reasons why it would be better not to proceed to randomised controlled trials until the most effective and safest vibration settings had been worked out. It is also worth noting that many 'older' participants in existing vibration trials were in their fifties [3, 4], i.e. probably younger than most readers of *Age and Ageing* would consider 'old'. Furthermore, virtually all commercially available vibration training equipment is primarily designed to be used by young, fit people.

In 2005, our group in Aberdeen undertook a study into the safety, feasibility and tolerability of vibration exercise in healthy volunteers aged over 65 years [5]. Vibration at 30 Hz, 3 mm displacement was very well tolerated and produced rapid and sustained increases in IGF-1 and cortisol, but the same subjects unknowingly undergoing a sham vibration intervention had no such increase in stress or anabolic hormones. We are now carrying out further studies at different frequencies and amplitudes, that should hope-

fully help fill some of the gaps in the literature base. If vibration exercise proves a tolerable, effective and safe intervention then further studies in older people with multiple medical problems could result in a number of clinical applications that may improve outcomes in even the frailest patients.

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