

## Letter to the Editors

### Parathyroid hormone secretion in low calcium intake smokers

Dr B. J. Boucher raises the valid issue concerning the association between smoking and the reduction in serum parathyroid hormone (PTH) (Boucher, 2001). With regard to observing this concern in our study (Bonofiglio *et al.* 2000), it is my pleasure to underscore the following points. First the influence of smoking has been ruled out in girls, since a negligible percentage of them (3) were smokers. In women with low and high Ca intakes we found that 26.6 and 22.2%, respectively, were current smokers. Second with regard to non-smokers, PTH levels were reduced in both subgroups of smokers, and this was significant in the high Ca consumers (smokers *v.* non-smokers,  $P < 0.01$ ). So, we assumed that in subjects exhibiting high Ca intake smoking represents an independent factor down-regulating PTH levels. Finally when we compared the smokers with deficient Ca intakes with those with high Ca intakes, serum PTH levels appeared again to be significantly higher in the former subgroup (smokers with low Ca intakes *v.* high Ca intakes,  $P < 0.05$ ). So, it seems that in the presence of deficient Ca intake the negative interference of smoking on PTH secretion is overcome by the hormonal mechanisms controlling Ca homeostasis. We are grateful to Dr B. J.

Boucher for providing us with the opportunity to reconsider our data relating to PTH levels in women at low and high Ca intakes, whilst taking into account smoking habits. This has given more strength to our previous findings.

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#### References

- Bonofiglio D, Maggiolini M, Catalano S, Marsico S, Aquila S, Giorno A & Andò S (2000) Parathyroid hormone is elevated but bone markers and density are normal in young female subjects who consume inadequate dietary calcium. *British Journal of Nutrition* **84**, 111–116.
- Boucher BJ (2001) Parathyroid hormone and dietary calcium. *British Journal of Nutrition* **85**, 243.