

## Correspondence

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### Hormones, Mood and Sexuality

SIR: We write in reference to the recent article by Alder *et al* (*Journal*, January 1986, 148, 74–79). The research recorded is in line with the high standards that one has come to expect from the MRC Reproductive Biology Unit at Edinburgh. A number of interesting findings emerged:

Firstly, in terms of hormones, testosterone and androstendione median levels were lower in 5 breast-feeding women taking a progestogen-only pill, in comparison to 14 breast-feeding women who were not taking steroidal contraception.

Secondly, in the breast-feeding women testosterone and androstendione median levels were lower in those assessed at interview as having severely reduced sexual interest.

There is an apparent anomaly here, in that one might presuppose that those women taking steroidal contraception were certainly more concerned about the results of sexual activity (preventing a further pregnancy) and were possibly more interested in sexual activity. As mentioned, their testosterone and androstendione levels were lower, but no comment is made in the paper concerning their *actual* sexual interest, in comparison with the group not taking the pill and who had higher male hormone levels. This information would be of interest in assessing the association between male hormones and sexual activity in this group of people.

BRIAN HARRIS  
ROGER THOMAS

Sully Hospital  
Sully, Glamorgan CR6 2YA

### Drs Alder and Bancroft Reply

SIR: Drs Harris and Thomas raise an interesting point in their letter. If the reduced sexual interest in our sub-group of breast-feeding non-pill using women was a result of their lower androgens, did the pill using group whose androgens were also low report sexual interest, and if not why not?

The progestogen-only pill using breast-feeders did not differ from the non-pill using breast-feeders in either sexual interest or activity. This highlights the complexity and often contradictory nature of the evidence of androgens in the sexuality of women which we pointed out in the paper. It is of course

possible that the low level of androgens in the non-pill sub-group was a result, not a cause, of the low sexual interest. Or, alternatively, as we warned in the paper, they may have had lower androgens to begin with (i.e. before pregnancy). Although we have no evidence that our pill users were either more concerned about the result of sexual activity or more sexually interested before starting on the pill, they may have differed in some relevant way, e.g. their level of sexual interest may have been brought down by the pill or lowered androgens to the same level as the non-pill users. It is also possible that the androgen lowering effect of the contraceptive pill is different to that of breast feeding in some obscure way.

As yet there is little other evidence of the effects of progestogen-only pills on androgen levels. In a previous study of combined oral contraceptive users (Bancroft *et al*, 1980) we compared women with and without loss of sexual interest. Both groups had equally low androgens. In the "normal interest" group testosterone levels were positively correlated with self-ratings of sexual interest; this was not so in the low interest group. The role of androgens in female sexuality remains an enigma.

ELIZABETH ALDER  
JOHN BANCROFT

MRC Reproductive Biology Unit  
Centre for Reproductive Biology  
Edinburgh EH3 9EW

### Reference

BANCROFT, J., DAVIDSON, D., WARNER, P. & TYRER, G. (1980) Androgens and sexual behaviour in women using oral contraceptives. *Clinical Endocrinology* 12, 327–340.

### Homosexuality in Monozygotic Twins Reared Apart

SIR: I was very surprised to read that female sexuality may be an acquired trait and male due to complex interaction, in which genes play some part (*Journal*, April 1986, 148, 421–425). It is quite clear that the authors are aware that their sample is small, but the consequences are not accepted (i.e. they dare make conclusions as outlined above. Homosexuality is not a rarity (despite the fact that collecting a large enough sample of homosexual