

order and number of older children in the household (not shown) suggested that the number of older children was a more influential variable.

Eczema in the first year of life was also independently related to the number of older children in the household (see table). There was no association between eczema in infancy and younger children of the family (who were not yet born).

### Comment

Variations in labelling respiratory symptoms probably exist among socioeconomic classes, but it is unlikely that differential reporting could explain the strong relation between hay fever and position in the household, which was independent of the social class of the father. Although the recall by parents of eczema occurring in infants seven years previously might be influenced by total family size, it is less likely to have been affected specifically by the number of older children in the household. Similar gradients in hay fever and eczema with increasing family size were reported at 5 years of age among British children born in 1970.<sup>4</sup>

These observations do not support suggestions that viral infections, particularly of the respiratory tract, are important precipitants of the expression of atopy.<sup>5</sup> They could, however, be explained if allergic diseases were prevented by infection in early childhood,

transmitted by unhygienic contact with older siblings, or acquired prenatally from a mother infected by contact with her older children. Later infection or reinfection by younger siblings might confer additional protection against hay fever.

Over the past century declining family size, improvements in household amenities, and higher standards of personal cleanliness have reduced the opportunity for cross infection in young families. This may have resulted in more widespread clinical expression of atopic disease, emerging earlier in wealthier people, as seems to have occurred for hay fever.<sup>1</sup>

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- 1 Emanuel MB. Hay fever, a post industrial revolution epidemic: a history of its growth during the 19th century. *Clin Allergy* 1988;18:295-304.
- 2 Fleming DM, Crombie DL. Prevalence of asthma and hay fever in England and Wales. *Br Med J* 1987;294:279-83.
- 3 Taylor B, Wadsworth J, Wadsworth M, Peckham C. Changes in the reported prevalence of childhood eczema since the 1939-45 war. *Lancet* 1984;ii:1255-7.
- 4 Golding J, Peters T. Eczema and hay fever. In: Butler N, Golding J, eds. *From birth to five. A study of the health and behaviour of Britain's five-year-olds*. Oxford: Pergamon, 1986:171-86.
- 5 Busse WW. The relationship between viral infections and onset of allergic diseases and asthma. *Clin Exp Allergy* 1989;19:1-9.

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## Spare artificial legs

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Providing every amputee with two prostheses as an entitlement was started during the first world war. Prostheses were then made of wood by craftsmen. Conditions and circumstances have changed since, and many doctors and paramedical staff now think that one modern prosthesis would serve the patient better.

Most prostheses made in Britain in the 1940s and 1950s were metal. These took several months to manufacture, several weeks to repair or modify, and several days to adjust. The amputees were young and justifiably required two prostheses so that while one prosthesis was being repaired they could use the "duplicate." Patients today with leg amputations are mostly elderly. In the 1970s "modular" prostheses were introduced, and plastic and carbon fibre were used to make prostheses. Prostheses can now be made within days and resocketed or repaired "while you wait." Thus with faster production and an older patient population many doctors think that only one prosthesis should be provided.

### Patients and results

I interviewed 100 patients, aged 22 to 85, who were attending a limb fitting centre about their prostheses. Only adults with unilateral below knee or above knee amputations who had been provided with two prostheses of the same prescription and still had both were included. I excluded patients who, though having been

provided with two prostheses, stated that they had only one, or had lost or mislaid one, or had returned one to the clinic.

Thirty eight patients said that they used both prostheses; 62 used only one and rarely used the other. Twenty six said the unused prosthesis was not comfortable; 18 simply preferred one over the other; 11 said that the unused one was a poor fit; and seven gave no reason or said that they thought one was to be kept in reserve.

### Comment

Patients who have had a leg amputated know that two prostheses will be provided, one of which will be a "spare leg"—a term which should be dropped. This is reinforced, perhaps unwittingly, by the paramedical staff and sometimes by the doctor.

The incentive to make a comfortable prosthesis the first time is often lacking because it is assumed that there will soon be an opportunity to make a duplicate. The patient receives the first prosthesis and awaits the "second, even better" leg. One is inevitably more comfortable, and the other is rejected. In practice no two prostheses are identical, and even if both are comfortable one prosthesis is favoured. Sometimes attempts are made to make them identical, and in fact they become less comfortable. One leg is destroyed and a new one made, perhaps with a new component or a new type of foot. The quantity of prosthetic hardware should never overtake quality of patient care. A second prosthesis should be provided only in exceptional circumstances. The patient's views are important, but the final decision is the doctor's, who is answerable as the prescriber.

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