years earlier, suggesting increased fitness between the two populations.

Our charts were derived from cross sectional data.

Our reason for correlating BMI with body fat estimates from skinfold thickness and bio-electrical impedance was to show the relationship between three measures of fitness estimation that are currently in common use.


Trends in breast feeding in New Zealand

EDITOR—Breast feeding is the best method of feeding young infants with health benefits for them and their mothers.1 2 Like other developed countries New Zealand suffered a postwar decline in its breast feeding rates that reached a nadir in the late 1960s. The reasons were multifactorial. They included changes in the status of women, with more women working outside the home; increased mobility with loss of contact with extended families and older women who could offer breast feeding support; a belief in the superiority of technology and science; and advertising of infant formulas as being superior to breast milk.3 The Royal New Zealand Plunket Society was established in 1907 and provides well child care to children under 5 years old in New Zealand. Plunket nurses (equivalent to health visitors in the UK) now see over 90% of infants under 1 year of age, usually from two to three weeks postpartum. Data collected since 1946 on breast feeding rates at the first contact with the Plunket nurse and the percentage of infants who see the Plunket nurse are shown in the figure. The data do not differentiate between exclusive or partial breast feeding.

The breast feeding rates in New Zealand and Great Britain15 to 20 years age were approximately the same. However, since then New Zealand’s breast feeding rate has risen steadily and now around 84% of infants are being breast fed when seen by Plunket nurses as 2 to 3 weeks of age. This compares with a recent study of a cohort of 7% of New Zealand infants born in 1990–1 in which 94% of them were breast fed at birth (Plunket Society, unpublished data).

The reasons for the increase in breast feeding rates, like the reasons for the decline, are probably multifactorial. These may include home visiting by Plunket nurses up to six to nine weeks postpartum; Plunket family centres, which are free day centres staffed by Plunket nurses who are lactation consultants where mothers with breast feeding problems can go; increased awareness of the benefits of and promotion of breast feeding, ‘tots and toddlers’ education programmes in schools for 13 and 14 year olds.6

The increase in breast feeding rates is similar to that found by Hofvander and Sjölin in Sweden where the breast feeding rates rose from an all time low of 31% in 1972 to 62% in 1976–7 by using an information and education campaign about the superiority and value of breast feeding.3 The overall rate of mothers breast feeding their babies at birth in Great Britain has stayed around 65% since 19754 and in some areas initial breast feeding rates are as low as 8%.6 These data show that the decline in breast feeding can be reversed and the breast feeding rate markedly improved in little over a decade.

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Premenarchal endometrial shedding revealed by peritoneal dialysis

EDITOR—In our centre three female patients have reached menarche while undergoing peritoneal dialysis. All have shown cyclical blood staining of peritoneal dialysis fluid which preceded any vaginal bleeding (table). Microscopy of the stained dialysis fluid showed 2000–4400 red blood cells/µl and 0–20 white blood cells/µl and cultures of dialysis fluid showed no growth. The first two patients shown in the table went on to have regular menses with peritoneal fluid staining. The last patient underwent renal transplantation with removal of dialysis catheter and regular vaginal bleeding began six months later.

This observation is consistent with the finding that retrograde menstruation is almost universal in adult women3 and well recognised among adult women using peritoneal dialysis.6 Other premenarchal cyclical changes or ‘dawn phenomena’ have been described and found important in the management of adolescent young women with other chronic conditions.4 Pubertal young women using peritoneal dialysis should be made aware of this phenomenon to avoid blood stained dialysis bags causing unnecessary anxiety and alarm for the patient and her family and unnecessary investigations or treatment by medical staff. Indeed, as this phenomenon is universal in our adolescent female population, young women should expect cyclical blood staining of their peritoneal dialysis fluid in the months before their periods begin.

The timing of this cyclical blood loss suggests it is endometrial in origin. The presence of blood in the peritoneal fluid for several cycles before any vaginal bleeding is seen may indicate that the cervical changes known to occur in late puberty are necessary to allow free blood flow into the vagina.3 This observation is consistent with endometrial development occurring before cervical maturatation. In one case, a cycle of vaginal bleeding with peritoneal fluid staining was followed by a brief episode of peritoneal fluid staining without concurrent vaginal bleeding. This is consistent with retrograde menstruation occurring in preference to vaginal bleeding. Some young women approaching the menarche have monthly lower abdominal pain which, according to common folklore, is a sign that periods will soon begin. Such monthly pains may be caused by peri- toneal blood from cyclical endometrial shedding.

Cyclical phenomena occurring before the menarche warrant further investigation which might include serial ultrasound of the ovaries and serial sex hormone and gonadotrophin levels. Adolescent women undergoing peritoneal dialysis have provided a window into these normal pubertal phenomena.

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Peritoneal bleeding</th>
<th>Vaginal bleeding</th>
<th>Cycle length (days)</th>
</tr>
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<tbody>
<tr>
<td>14–1</td>
<td>1–5</td>
<td>0–22</td>
<td>14</td>
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<tr>
<td>15–2</td>
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<td>1–5</td>
<td>0–27</td>
<td>16</td>
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<td>3–0</td>
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<td>7–25</td>
<td>0–70</td>
<td>18</td>
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<tr>
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<td>3–5</td>
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<td>19</td>
</tr>
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<tr>
<td>26–5</td>
<td>0–25</td>
<td>–</td>
<td>26</td>
</tr>
</tbody>
</table>

Percentage of new babies seen and breast feeding rates at first contact with the Plunket Society (1946–94); first contact is between birth and 3 weeks of age.
Manganese in long term paediatric parenteral nutrition

EDITOR,—We strongly support the view of Reynolds et al that manganese should be measured routinely in all children on long term parenteral nutrition. 

The patients studied by Reynolds et al had cholestasis as well as being on long term parenteral nutrition. While we agree that it is essential to limit intravenous manganese intake in these children, our study suggests that this alone may be insufficient to prevent or reverse the hypermanganesaemia.

Further work is required to study the effect of chelating agents and/or agents promoting biliary excretion.

Management of anaphylactic reactions to food

EDITOR,—As immunologists involved in the provision of laboratory services for the investigation of allergic patients as well as patients with other immunological problems, we were concerned to read in Professor David's clinical review of food induced anaphylaxis that some immunology laboratories 'are routinely advising the use of adrenaline syringes for any child who is found to have food specific IgE antibodies (for example, positive RAST to peanut) regardless of the history'.

We wish to emphasise that clinical decisions such as that involved in the provision of preloaded adrenaline syringes must be made on the basis of a full clinical assessment, preferably by a paediatrician, immunologist, or allergist involved in the diagnosis and management of patients with specific allergic disease. Interpretation of laboratory specific IgE (RAST) test results or skin prick tests, alone and in isolation is problematic as both false positive and false negative results can result from either type of investigation. It is our opinion that provision of direct clinical advice on the basis of laboratory results alone does not constitute good laboratory practice.

The irritable hip

EDITOR,—I read the article on the irritable hip by Pink et al. and the accompanying commentary by Taylor and Clarke with the prejudice of a parent of a son who had this very painful condition. Pink et al suggest a protocol which includes joint aspiration when fluid is diagnosed on ultrasound imaging. Although only one aspirate out of 36 was infected, no less than 28 children experienced immediate relief of hip pain after aspiration. Taylor and Clarke suggest that benefit from aspiration may be only temporary. How then is more prolonged pain relief to be obtained? My son's earlier attacks were treated in hospital or at home with analgesics which were inadequate. His last attack was after I had joined the staff at Great Ormond Street, and George Lloyd Roberts put him straight into traction with complete relief. Pink et al state that traction does not influence outcome but as the prognosis is favourable anyway pain relief is surely the important issue.

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(There were 18 other signatories to this letter representing consultant immunologists and professors of immunology from all regions of the UK and Republic of Ireland.)


Professor David comments:
We welcome the endorsement that the decision to supply adrenaline syringes should be based on a full clinical assessment. We also welcome the recently published guidelines for good allergy practice from the Royal College of Physicians and the Royal College of Pathologists, which stress the need for paediatricians to be involved in the diagnosis and management of children with allergy or suspected allergy. Perhaps the single most striking feature of running a service for children with suspected food intolerance is the high proportion of children who have other quite different, often important, and treatable disorders.