In Sweden (Lancet 2001;358:534–8) the addition of automatic analysis of the ST waveform of the fetal electrocardiogram to conventional cardiotocography in labour improved recognition of fetal hypoxia. There were significant reductions in the rates of operative delivery and of metabolic acidosis in umbilical arterial blood at birth.

The most serious injuries to children from dog bites may be blunt rather than penetrating injuries. Of 39 children admitted to the paediatric trauma service in Denver, Colorado over a period of 6 years (Journal of Pediatric Surgery 2001;36:115–7) eight had life threatening injuries and of those, six had blunt injury including head injury (3), arterial injury (axillary artery (1), carotid artery (1)), and spinal cord injury (1). One child died of exsanguination from a cavernous sinus tear. One child had a laceration of the trachea and another of trachea and oesophagus. The dogs involved were rottweilers (3), labradors (2), akitas (2), and husky (1); (pitbulls are banned in Denver).

You may be quick to detect nits in children, but what about NITS? The US Third National Health and Nutrition Examination Survey included audiometric testing of 5249 children from which it was concluded that 12.5% of American children have NITS (noise-induced hearing threshold shifts) in one or both ears (Pediatrics 2001;108:40–3). Most children with NITS had only limited damage but continued exposure to excessive noise could lead to difficulties with high frequency sound discrimination. Examples of potentially harmful noises to which children may be exposed include musical concerts, fireworks, lawnmowers, stereos, and toys.

More data from the Third National Health and Nutrition Examination Survey (Pediatrics 2001;108:44–53) relate child development to a family’s claim to have inadequate food because of poverty. After adjusting for confounders, younger children (6–11 year olds) from such families had poorer school performance, were more likely to have seen a psychologist, and had more difficulties in their relationships with their peers than other children. Teenagers (aged 12–16 years) from food-deprived families had similar problems and were more likely to have been suspended from school. It is estimated that over 14 million American children have an inadequate or uncertain food supply.

Somatostatin reduces splanchic, hepatic, and portal blood flow, intestinal motility, and the flow of lymph in the thoracic duct. In Hong Kong (Journal of Pediatrics 2001;139:157–9) two infants who developing persisting chylothorax after cardiac surgery were treated with subcutaneous octreotide, a long acting synthetic analogue of somatostatin, and the chylothorax resolved in both cases.

Immunisation with diphtheria, tetanus, and whole cell pertussis (DTP) or measles, mumps, and rubella (MMR) vaccines temporarily increases the risk of febrile convulsions but is not associated with long term damage. Four large health maintenance organisations on the West Coast of the USA provided data about nearly 680 000 children (New England Journal of Medicine 2001;345:656–61). Neither DTP nor MMR vaccination was associated with an increase in nonfebrile seizures. DPT increased the risk of febrile seizures almost sixfold (ninefold in infants under 12 months) only on the day of vaccination and MMR increased the risk almost threefold during the second week after vaccination. For every 100 000 children vaccinated DTP would be associated with about 8 extra febrile seizures and MMR with about 30. On follow up neurodevelopmental abnormalities were no more common in children who had had vaccine associated febrile seizures than in those who had had febrile seizures not associated with vaccination.

Why do some infants with respiratory syncytial virus (RSV) infection develop severe bronchiolitis and others have little more than a runny nose? By analogy with asthma it has been postulated that severe bronchiolitis might result from a predominantly Th2 type lymphocyte response with Th2 type cytokine production. Now researchers in Buffalo, New York (Journal of Infectious Diseases 2001;184:393–9) have suggested that chemokines may be more important than cytokines. They found that infants with severe RSV bronchiolitis had a balanced Th1-Th2 cytokine response in nasopharyngeal secretions, similar to that of infants with RSV upper respiratory infection. On the other hand, there was a marked increase in concentration of the chemokine, macrophage inflammatory protein (MIP)-1 alpha in the infants with severe bronchiolitis.

Children with cochlear nerve aplasia cannot benefit from cochlear implantation. In Italy (International Journal of Pediatric Otorhinolaryngology 2001;60:99–111) two children aged 4 and 3 years received auditory brainstem implants. After several months both had good awareness of environmental sounds and one had achieved good speech detection and some speech discrimination while the other had achieved moderate speech detection.

A case-control study in Brisbane, Australia (Developmental Medicine and Child Neurology 2001;43:580–5) included 30 children with cerebral palsy born at 24–27 weeks gestation and 120 controls, without cerebral palsy, matched for gestational age. Intrauterine growth restriction increased the risk of cerebral palsy sevenfold while administration of betamethasone to the mother before delivery was associated with a 60% reduction in risk of cerebral palsy.

In rural Nepal (International Journal of Epidemiology 2001;30:802–7), of 15 726 pregnancies which ended in the live birth of at least one child 253 were twin pregnancies (16.1 per 1000). Of these 253 pregnancies, 116 resulted in two live births and 137 in one live birth and one stillbirth. The twinning rate was increased by 30% in women randomised to vitamin A and by 44% in women randomised to betacarotene compared with women randomised to placebo, but supplementation did not increase postnatal survival. Perinatal mortality was nearly nine times higher in twins than in singletons.