
In England and Wales in 2000 7.6% of all live births (6.1% of singleton births) were of low birthweight infants (*Journal of Epidemiology and Community Health* 2002;**57**:687–91). Among births registered by both parents the low birthweight rate was 6.4% when the father had a non-manual occupation and 8.2% when the father had a manual occupation. Among births registered by the mother alone the rate was 10.2%. (For singleton births the corresponding figures were 4.8%, 6.8%, and 9.0%). Between 1993 and 2000 the low birthweight rate increased by 11%. The rate of increase was similar in all three groups (9% among the families of non-manual workers, 15% among manual workers' families, and 11% among families in which the birth was registered by the mother alone) and the increase was not due solely to an increase in multiple births.

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In Finland (*New England Journal of Medicine* 2003;**348**:2517–24, see also editorial; ibid: 2568–70) 37 of 3654 schoolchildren aged 7–16 years in 1994 had biopsy-proved coeliac disease by 2001. Fifty-six had positive tests for serum endomysial or tissue transglutaminase antibodies (or both) in blood taken in 1994 and tested in 2001. Ten of these had developed abdominal symptoms leading to biopsy and a diagnosis of coeliac disease before 2001. Twenty-seven of the remaining 46 had positive biopsies in 2001, nine had normal biopsies, and 10 did not have a biopsy. Fifty-four children (1.5%) were antibody positive and had a coeliac disease-associated HLA haplotype (HLA-DQ2 or HLA-DQ8). The authors of this paper consider the question of population screening but conclude that it cannot be recommended at present.

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The relationship between sudden infant death syndrome (SIDS) and maternal psychiatric disorder has been discussed in an editorial in the *British Journal of Psychiatry* (2003;**182**:379–80). Two studies have shown a threefold increase in the risk of SIDS when the mother suffers from postnatal depression. A Danish study of mothers with schizophrenia suggested a fivefold increase in risk for their babies. Substance abuse also increases the risk. Physiological changes in the infants and behavioural factors in the mothers leading to poor child care have been blamed for the observed associations. SIDS prevention measures (advice about smoking in pregnancy, reduction of the infant's exposure to tobacco smoke, and putting infants on their backs to sleep) are particularly important for mothers with a psychiatric disorder.

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The classical clinical signs of tension pneumothorax may not be reliable. Tracheal deviation, unilateral hyperresonance, and decreased air entry on one side may all be absent. In London (*Emergency Medicine Journal* 2002;**20**:494–6) a 14 year old boy fell three floors down a lift shaft. When an emergency team was able to reach him 40 minutes later he was deeply cyanosed and agitated and had severe respiratory distress. The trachea was central and percussion and auscultation failed to clarify the side of the presumed tension pneumothorax. A careful look at the chest, however, showed hyperexpansion and reduced movement on the left. Needling the chest (second left interspace, midclavicular line) resulted in a brief hiss but no clinical improvement. Tube insertion under sedation, however, resulted in immediate improvement. He subsequently recovered well in hospital.

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In practice monochorionic twin placentas mean monozygotic twins though the reverse is not true; dichorionic placentas are found with both dizygotic and monozygotic twins. Among monozygotic twins the type of placenta depends on the stage at which division into two embryos occurs (preblastocyst—dichorionic, diamnionic; blastocyst—monochorionic, diamnionic; after amniotic sac formation—monochorionic, monoamniotic). The three types occur respectively in 25%, 75%, and <1% of monozygotic twin pregnancies. Now monochorionic, diamnionic placentation has been described in a pair of dizygotic twins (boy and girl) born after in vitro fertilisation (*New England Journal of Medicine* 2003;**349**:154–8, see also perspective article, ibid: 111–4). It is postulated, but not proved, that separately fertilised embryos might have fused at late-morula stage giving rise to trophoblast containing cells from both embryos whereas the embryos themselves remained distinct. Whatever the explanation, monochorionic placentas can still be taken as almost certain evidence of monozygosity.

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In Queensland, Australia (*New England Journal of Medicine* 2003;**349**:27–35, see also editorial, ibid: 82–3) 149 infants with acute bronchiolitis were randomised to three doses each of 4 ml of nebulised 1% epinephrine (adrenaline) at 4-hour intervals or saline placebo. Time until ready for hospital discharge was similar in the two groups overall (47 hours vs 48 hours) but greater in the epinephrine group (136 hours vs 80 hours) for infants who needed supplemental oxygen and intravenous fluids. The authors of this study and two editorialists conclude that bronchodilators are not indicated in acute bronchiolitis.

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Nitrous oxide causes irreversible oxidation of the cobalt atom of vitamin $B_{12}$ and vitamin $B_{12}$ is needed for full activity of methionine synthase. Severe 5, 10-methylenetetrahydrofolate reductase (MTHFR) deficiency is characterised by high homocystine and low methionine concentrations in plasma. In America (*New England Journal of Medicine* 2003;**349**:45–50; see also perspective article, ibid: 5–6) a 3-month old boy had two operations in 4 days under general anaesthesia with halothane and nitrous oxide. Twenty-five days later he was readmitted to hospital with seizures, apnoea, and hypotonia and had generalised brain atrophy. He subsequently died and postmortem studies have confirmed a diagnosis of MTHFR deficiency. It is suggested that the cause of death was nitrous oxide-induced methionine synthase deficiency superimposed on inherited MTHFR deficiency.

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Antiphospholipid antibodies include lupus anticoagulant and anticardiolipin antibodies. They may be associated with systemic lupus erythemastosus, other autoimmune disorders, connective tissue disorders, malignancies, drug use, or infections, though in many cases no underlying disorder is found. In adults they cause thrombosis and, less commonly, haemorrhage. In children the antibodies are usually transient and sequelae are rare. In London (*Emergency Medicine Journal* 2002;**20**:e5) a 3-year old girl presented with spontaneous bruising over several days. She had a prolonged activated thromboplastin time (aPTT) and further studies showed normal prothrombin and thrombin times, low factor II activity, and lupus anticoagulant. She recovered over a period of 4 weeks with normalisation of study results. She had possibly had a viral infection some weeks before the onset of bruising.