constructed from silicon semiconductor strain gauge, which has a linear response from DC to 1000 c.p.s. Its applications are described in relation to phonocardiography, to the timing of cardiovascular events, to cardiac output, and lastly as a guide to the force of myocardial contraction. The small size of pick-up and high frequency response make it a useful tool for phonocardiography in childhood and the applications to the recording of systolic clicks associated with small ventricular septal defects are described. In the sub-audio frequencies (below 40 c.p.s.) evidence is shown that the accelerometer measures true acceleration. The use of an accelerometer to calibrate the time lag of pressure waves up a Lehmann catheter is described and the correlations of the acceleration waves with intracardiac pressures are shown. The relation of ejection time to cardiac output in congenital heart disease is discussed and finally evidence is shown that the amplitude of the accelerogram waves is related to the force of myocardial contraction. A pendulum method of calibration and further applications in the monitoring of myocardial disease are suggested.

Experience with treatment of covert bacteriuria in 5-year-old Dundee schoolgirls. D. C. L. Savage, M. E. Wilson, M. McHardy, and W. M. Fee (*Departments of Child Health and Bacteriology, University of Dundee, and Child Health Services, City of Dundee*). Since 1967 the 5-year-old schoolgirl entrants to Dundee Primary Schools have had their urine examined for significant bacteriuria. Approximately 5000 children have been screened and a prevalence of 1.5% covert bacteriuria has been found.

Forty children detected in the first 2 years screening were all treated and the results of treatment, follow-up, and repeat radiological investigation 2 years later were presented. The most significant finding was the high rate of reinfection while on therapy, which was not influenced by the presence or absence of underlying urogenital abnormality. At 2 years over 75% had become reinfected on at least one occasion and over half the children had had 2 or more episodes of reinfection. It was unusual to find an acute illness associated with these episodes, though in many cases mild urinary symptoms recurred. In only one child does the radiological picture and renal function give cause for grave concern.

Children detected more recently, approximately 40, have entered a randomized controlled trial of therapy. The follow-up period is still brief but a number have been observed for over a year. It is already apparent that some resolve without therapy and in no child has serious symptomatic disease developed.

Detection of heterozygotes for homocystinuria by oral loading with L-methionine. I. B. Sardhar-

walla, B. Fowler, and A. J. Robins (*introduced by I. B. Houston*) (*Royal Manchester Children's Hospital and Department of Medical Biochemistry, University of Manchester*). To be published elsewhere.

Some consequences of artificial feeding in neonates with reference to excess weight gain and osmolar loading. L. S. Taitz (*introduced by V. Dubowitz*) (*Department of Child Health, University of Sheffield*). Recent studies in Sheffield have indicated that infants showing a rapid rate of weight gain in early infancy have a greater tendency to later obesity than those who gain weight more slowly.

These findings have prompted further studies of feeding practices. It has been found that rapid weight gain is associated with artificial feeding and the early introduction of solids. On the basis of Eid's criteria 59% of infants show excessive weight gain at 6 weeks. These findings are associated with an estimated dietary intake that exceeds the usually recommended 100 calories/kg per day.

Analysis of milk samples taken from bottles brought to the follow-up clinic show that the sodium concentration often exceeds that of cow's milk, indicating that insufficient care is taken in the preparation of feeds.

This increased osmolar intake may be significant in relation to the high incidence of hypertonic dehydration.

Clinical value of plasma creatine kinase and uric acid levels during first week of life. B. A. Wharton Urmilla Bassi, G. Gough, and Angela Dilhams (*Queen Elizabeth Hospital, London E.2*). Published in full (*Archives of Disease in Childhood*, 46, 356).

Demonstrations

Anonymous mycobacteria in childhood. T. Knowlson, W. A. Hyde, and H. B. Marsden (*Royal Manchester Children's Hospital*).

Tumours in children. J. K. Steward (*Manchester Children's Tumour Registry*).

Some problems posed by the sweat test. V. Schwarz (*Department of Child Health, University of Manchester*).

Studies on the mechanism of sweat secretion. C. Gordon and V. Schwarz (*Department of Child Health, University of Manchester*).

Vulnerability of the developing brain. (*Department of Child Health, University of Manchester*): (a) Effects of experimental growth retardation—Jean Sands and J. Dobbing; (b) Brain enzymes following experimental undernutrition—B. Adlard; (c) Behavioural consequences: of experimental undernutrition—J. Smart and A. Lynch; (d) Experimental X-irradiation in infancy: effects on brain enzymes and behaviour—B. Adlard and A. Lynch; (e) Human brain growth—Jean Sands and J. Dobbing.