Baby-led weaning (BLW) involves offering pieces of food that babies can grasp in their hand and allowing babies to feed themselves by selecting foods rather than spoon-feeding.\(^1,2\) Initial self-feeding attempts often result in little food ingested as the baby explores textures and tastes, but babies start to swallow when they are developmentally ready. Milk feeds are generally offered before solids or at a separate time. Based on the plethora of comments on websites and forums discussing BLW, it has become more popular because parents like the idea and often find it works for them and their babies. In the recent Infant Feeding Survey, however, by far the majority of mothers said the food they first gave to their baby was mashed or pureed (94%), while only a small proportion gave finger food (4%).\(^3\)

This article discusses some recent studies describing infant development in relation to BLW and looking at a limited range of outcomes. None were randomised and most rely on mothers’ reports of their child and their practice. BLW is not publicised as widely as spoon feeding, so parents who use this method are likely have researched it themselves. As research skills are associated with a higher level of education, women using BLW are likely to have higher average levels of education.

Evidence on physiological maturity
A detailed review of the literature on babies’ maturation and development found that the digestive system is ready to cope with solid foods at around six months.\(^4\) At this time babies also develop the skills to feed themselves: they can sit unsupported, bring their hands to their mouth, and their tongue and gag reflex have evolved for eating solid foods. This is known as ‘a convergence of maturation’, and is one reason why six months is considered appropriate to introduce solid foods.\(^4\)

The Gateshead Millennium Study followed milestones in a group of 602 children. They found that 56% reached out for food and 40% had first eaten finger food before six months of age. However 6% had still not reached out for food at eight months and these children were also later to walk unaided. The authors concluded: ‘Baby-led weaning is probably feasible for a majority of infants, but could lead to nutritional problems for infants who are relatively developmentally delayed.’\(^5\)

BLW guidelines advise against relying on this method for premature or developmentally delayed babies. Parents and health professionals may be concerned that babies will not be able to eat sufficient food without help. Finger foods are more nutrient-dense than purées so babies who appear to be eating little when self-feeding may actually be meeting their requirements.\(^5\) In one study, toddlers eating a finger-fed meal took 50% longer to eat only just over half the weight of food eaten at a comparison spoonable meal, but the average energy consumed was the same.\(^6\)

Food preferences
Anecdotally, parents say that babies who can choose what to feed themselves seem to have wider food tastes. Based on detailed observation of babies and feedback from parents, Rapley suggests that the BLW method allows babies to regulate their own food intake according to appetite and may reduce food fussiness.\(^2,4\)

A recent observational study compared families who had started by spoon feeding or used BLW to investigate whether this altered food preferences and health outcomes.\(^7\) Parents recruited through the Nottingham Toddler Laboratory and relevant internet sites were surveyed on their method of introducing solid foods. The babies were aged 20—78 months at the time of the survey with 92 in the baby-led (BLW) group and 63 in the spoon-fed (SF) group. Questions covered the child’s preference for 151 foods grouped into common food categories, and the frequency with which these foods were consumed. There were clear differences in mothers’ reports of their children’s eating. The BLW group were more likely to have handled food from the start and were given finger foods earlier. Fewer had been spoon-fed with puréed foods at all.

Major weaknesses of this study are that parents were self-selected, they provided all the data, and they were recruited in different ways in the two groups: the BLW group from internet sites, and the SF group from the university toddler database. This raises the
potential of both selection and subject bias; that is, if the baby-led group had more interest in the topic they could selectively under- or over-report variables under investigation. The BLW group showed increased preference for all food categories except sweets compared to the spoon-fed group, although this was only significant for starchy foods. The SF group preferred sweet foods most, whereas the BLW group preferred starchy foods. Preference and frequency ratings were not influenced by socially desirable responding (giving the answer considered to be most appropriate) or socioeconomic status. No difference in picky eating was found between the two groups, and choking, which is a common concern for parents considering BLW for the first time, was not more common in the BLW group.

Weight gain
In the Nottingham study, the BLW group had lower BMI (in terms of mean percentile rank). Compared to standard population measures, there were more underweight children in the BLW group (3/63 vs 0/63) and an increased incidence of obesity in the SF children (8/63 vs 1/63) (p=0.02). This could not be accounted for by differences in birth weight, parental BMI, or socioeconomic status. However, it should be noted that 32% of BMI data was missing in the BLW group and, in both groups, the majority of the children had a healthy weight. It is not possible to determine whether the method of offering solid foods made a difference to the children’s weight or whether this is an artefact of self selection. The authors suggest that babies who experienced BLW learned to regulate their food intake in a way that led to a lower BMI and a preference for healthier carbohydrate foods. This seems to be the only study that has analysed body weight in babies who fed themselves from the start, since Clara Davis’ experiment with self-selection of foods by babies in the 1930s. Davis followed 15 babies from six months who chose how much or how little they ate of the 33 unprocessed foods they were offered. The underweight babies gained weight but none became overweight.

Mothers’ characteristics and behaviour
It is probable that parents who follow BLW display other behaviours that alter their child’s tendency to overweight. Brown and Lee found that parents who used BLW were more willing to hand control over to the child when introducing solid foods – which is a key factor of the approach. Their study was also cross-sectional so it is not possible to tell whether BLW encourages a feeding style which is low in control or whether mothers who have a less controlling style choose to follow BLW. There is evidence that a maternal feeding style that is low in control is better for the development of the child’s eating style and weight. Moors who followed a BLW approach report using significantly less restriction, pressure to eat and monitoring and had less anxiety than mothers who followed a standard weaning approach.

Further considerations
When, what and how babies are first fed solid foods is highly influenced by culture and tradition. It is important to note that there is no research evidence to show that spoon-feeding babies is most appropriate or that pureed foods are needed. For some years, this has essentially been assumed to be a given. Further evaluation is clearly needed, taking into account social class, income, cultural beliefs, and parental preferences. A longitudinal study could track maternal control, actual food consumed and body weight as well as experiences of parents. A randomised trial would need to recruit a group of open-minded parents and would be likely to result in an unrepresentative sample but this could provide useful data on health outcomes and food preferences.

References