

## Artificial Foods for Infants.

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All authorities maintain that the mother's milk is the ideal form of nourishment for every infant. It is Nature's own provision, and, consequently, cannot readily be improved on. One commonly finds nurses who feed the infant for the first day or two on a mixture of milk, water, and sugar. Flatulence and colic result, castor-oil is thrust down the innocent child's throat, and there is a general outcry because the child is fretful and sleepless, refusing to take the breast, thereby leading to the belief that it is tongue-tied. This is not by any means an uncommon experience even among those who should know better. There is no doubt that as soon after the birth of the child as possible the infant should be put to the breast, and this for two reasons. In the first place, the act of suckling reflexly causes uterine contraction, and so diminishes the risk of uterine hæmorrhage, while, in the second place, the secretion known as colostrum is not only nourishing but laxative to a certain extent. In other words, it supplies all the nourishment required by the child until the normal milk secretion is established, which usually occurs on the third or fourth day. If anything is given to the child, it should consist of a little water which has been sterilised by boiling and allowed to cool. This should be given plain, without the addition of sugar or of dill-water, or, indeed, of any other unnecessary ingredient. It is most important that the nurse in attendance should be made to realise the significance of these facts, as otherwise she is sure to be tempted to commit such errors, with consequent ill-effects so far as the child is concerned.

There are, however, cases where the mother would act unwisely were she to attempt to suckle her child. The conditions which render artificial feeding necessary may be classified as general and local. Among the general conditions may be mentioned tuberculosis, an hereditary history of insanity, and the onset of any acute disease. Local conditions include fissured nipples and mammary abscess. Under the term tuberculosis must be included slight as well as advanced cases of this disease. Even where the lesion is slight and the disease in its earliest stage, the strain of lactation is exceedingly apt to add fuel to a fire only too easily kept alight; and hence in such circumstances, apart altogether from the risk of infection, the child should not be put to the breast. Lactational insanity is by no means rare, and women of a highly nervous temperament do not usually make good nurses. These, of course, are only a few instances where

artificial feeding must be resorted to; others will readily suggest themselves to our readers.

When it has been decided to take the child off the breast, the serious problem of finding a suitable artificial food at once presents itself. In the case of infants living in the country, where abundance of fresh air is readily obtained, the difficulty is more easily got over; but in the case of town-bred infants it is a matter for the most careful consideration. Cows' milk, being readily procured, and its modification being easily accomplished, is usually selected. If, however, we tabulate side by side the analyses of human and of bovine milk, it will be seen that their compositions vary very markedly. According to Leeds we supply the following figures, which may be taken as approximately correct:—

	Proteid.	Fat.	Lactose.	Ash.	Water.
Human	1.995	4.131	6.936	0.201	86.737
Bovine	3.75	3.75	4.42	0.64	87.70

By simply diluting ordinary cows' milk, and adding fat in the form of cream, a suitable substitute for human milk is obtained; but it is not one, unfortunately, which can be given successfully to every infant deprived of the natural source of its food supply. This being so, numerous milk mixtures and artificial foods have been introduced. Many of the latter are far from satisfactory, while some are positively contra-indicated. It may be helpful to some at least of our readers if we mention the composition of a few of the more commonly-used artificial mixtures and foods.

### CLASS A.—MILK MIXTURES.

#### 1. *Rotch's Mixture*:—

Milk, 1 oz.  
Cream, 2 oz.  
Lime-water, 2 oz.  
Lactose,  $\frac{1}{2}$  oz.  
Water, 3 oz.

#### 2. *Biedert's Mixture*:—

Milk, 1 oz.  
Cream, 1 oz.  
Lactose, 1 drachm.  
Water, 3 oz.

#### 3. *Cautley's Mixture*:—

Milk, 3 oz.  
Cream, 1 oz.  
Lime-water, 1 oz.  
Lactose, 3 drachms.  
Water, 3 oz.

The last is certainly one of the best, and should be given a trial when necessary. It is a curious fact, however, that infants never thrive so well on milk mixtures, however closely these resemble human milk in their actual percentage composition. The knowledge of this fact has led to the introduction of a variety of so-called infants' foods, destined to aid the assimilation of cows' milk in some instances, but in others to be given in its

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