

somewhat resembles the large intestines in form. The intestines are relatively smaller and shorter than in the adult, and their peristaltic actions are more rapid, so that excrementitious matters are quickly evacuated. The mucous membrane of the whole alimentary canal is thick, soft, very sensitive, and easily irritated by improper food. The saliva commences to be secreted in the third month, but at that time contains little or none of the active principle necessary for the proper digestion of starchy foods. According to Archambault and Chambers, the infant requires, during the first day after birth, 3 to 4 drs., during second day 4 oz., third day 10 to 11 oz., fourth and fifth day about 1 pint. The amount required gradually increases until the sixth month, when 2 or $2\frac{1}{2}$ pints are required. Dr. Wm. Henry Cumming tells us, the infant after three months requires from $1\frac{1}{2}$ to 2 qrts., but I think few will agree with him. It is almost universally admitted that the mother's milk is the proper food for young infants. There are, however, exceptions; the most remarkable one, so far as I know, being the famous chemist, Van Helmont, who called milk "brutes' food," and proposed instead, as more suitable nourishment, "bread boiled in beer and honey." The healthy mother's milk appears to be perfectly adapted as to quantity and quality for all the requirements of the infant during the first months. The colostrum at first present acts as a purgative, carrying off the meconium. Although the secretion of milk is not fully established before the third day, yet there is generally a sufficient quantity for the child. The milk contains aqueous, saccharine, albuminous, and oleaginous principles. As compared with cow's milk, it contains more sugar, but less butter, casein, and salts. In addition, human milk is more alkaline. The fatty constituents are more finely emulsified. The casein is neutral, or slightly alkaline, easily soluble in water, coagulates in loose, fine flakes, and is digested quickly; while cow casein has an acid reaction, is insoluble in water, and coagulates in large, adhesive lumps. For these reasons, no artificial preparation of cow's milk (and the same may be said of other animals) can be made so digestible as human milk. The character of this milk is subject to various

modifications. It may be scanty, or though sufficient in quantity, too watery. The colostrum, which should disappear between the third and eighth day, may not do so for several weeks, or it may be affected by errors in diet, nervous impressions, acute diseases, menstruation, or pregnancy. It is the duty of the physician to observe carefully these changes, and, when possible, to apply the remedy for them. Dr. Cumming says that nine-tenths of the mothers of the United States are unable fully to supply their infants with milk. He may be led to this conclusion by the high estimate of the amount required by an infant three months old—i. e., $1\frac{1}{2}$ to 2 quarts. Drs. Muir and Whitehead, of Manchester, from an examination of 952 mothers in the Children's Hospital of that city, found that nearly half had sufficient food for six months after delivery, and some for two years. In this country I think that half the mothers, at least, have a sufficiency. Dr. J. Lewis Smith thinks that the appearance of the menses during lactation does not generally injure the milk, unless excessive in quantity, though it may sometimes, but pregnancy is more injurious, because then the milk is more likely to contain a considerable quantity of the viscid substance found in colostrum.

When the mother's milk is insufficient or absent, we have to supply the deficiency by procuring a wet-nurse, or by artificial feeding. Statistics of hospitals for foundlings show a great difference in mortality between the wet and dry-nursed. In Lyons and Parthenay, where the children are wet-nursed, the death-rates were 33 and 35 per cent.; while in Paris, Rheims, and Aix, where the children are dry-nursed, the death-rates were 50, 63, and 80 per cent. This shows the importance of wet-nursing; but at the same time the medical attendant should always exercise great care in his selection of a wet-nurse.

In artificial feeding cow's milk is most generally used; and our object should be to make it as nearly like the natural food as possible. For the first six weeks Eustace Smith recommends equal parts of new milk and lime-water sweetened. Sir. Wm. Jenner adds to this cream in the proportions of 2 drachms to a