

The Nursing of Children's Diseases.

By J. PORTER PARKINSON, M.D., M.R.C.P.
*Physician to the North-Eastern Hospital for Children;
 and to the London Temperance Hospital, etc.*

LECTURE I.

ARTIFICIAL FEEDING. (Continued from page 84.)

SWEETENED condensed milk requires to be diluted 1 in 10 by measure to be suitable for a child of about three months old. The composition is as follows:—

Fat	1.5
Lactose	2.
Cane sugar	2.78
Proteids	2.
Ash32
Total solids	8.68

Many of the cheaper brands of condensed milk are very deficient in fat, and so are unsuitable as infants' food. Dessicated foods are convenient for travellers, etc., as they will keep good in any climate, are sterile, and occupy only a small bulk.

Allen and Hanburys prepare valuable forms of infants' food. The first is suitable up to the age of three months; its composition, when diluted 1 in 8, as given by the *Lancet*, is as follows:—

Fat	1.64
Lactose and dextrine	8.19
Proteids	1.78
Salts6

The composition of No. 2 food is similar, but has an extract of malt added; this food is suitable for infants between three and six months of age.

It will be seen that these foods are deficient in fat and lime salts, but they are very useful when fresh milk cannot be obtained, and when the infant suffers from vomiting and diarrhoea.

Sterilization.—Cow's milk arrives to the ordinary resident in towns many hours after being drawn from the cow, and thus the organisms derived from various contaminations have had time to increase enormously in numbers. Some of these organisms may be harmless, but there is no doubt that, tuberculosis, typhoid fever, diphtheria and scarlet fever may be spread by milk, and also that ptomaines formed by other organisms are a fruitful source of acute diarrhoea. These organisms are destroyed by boiling or even by a temperature of 75° C maintained for half an hour; but in stale milk not only are these organisms present but their spores also and these spores produce disease.

In ordinary households there is no efficient way of sterilizing stale milk, but a good fresh cow's milk may be sterilized in one of the apparatuses sold by Hawkesley, which consists of an outer receptacle, large enough to contain the bottle of milk and about a pint of water into which a thermometer is inserted; the whole then can be raised to any desired temperature up to that of boiling water.

It is best to keep the temperature about 75° C or 167° F for half an hour and not to raise it higher as other changes may take place, rendering the milk less digestible. After sterilizing, the vessel containing the milk should be closed by a tightly fitting plug and put aside to cool.

A new form of sterilizer has been recently introduced by the "Cambridge Sentinel Manufacturing Company." It can be used over an ordinary fire or spirit lamp or an automatic gas stove supplied with it. It consists of a pan carrying an alarm bell which rings when the temperature necessary for sterilization has been reached. (185° F.) This informs the nurse exactly the point when it is necessary to remove the pan from the fire or lamp. The apparatus is simple and the price is cheap, i.e. from 6s. 6d. upwards.

The amount of food should of course be proportionate to the capacity of the infant's stomach at different ages.

The following table, compiled by Dr. Feer, of Basle, gives the monthly capacity reduced to English ounces.

Month.	Capacity in Ozs.	Month.	Capacity in Ozs.
1st	3.17	7th	6.34
2nd	3.52	8th	7
3rd	3.8	9th	7.9
4th	4.4	10th	8.8
5th	4.92	11th	9.4
6th	5.63	12th	10

During the process of feeding, some of the milk is doubtless absorbed from the stomach and hence an infant may be able to take and retain more than the above amount of food; the amount given should also be proportionate to the digestive powers of the infant and not only to its age and weight. The following table then represents the average amount for an average child.

	Ozs. Food.	Frequency. Hours.	No. of Bottles.	Total Food. Ozs.
During the 2nd Month.	3-4	2½	8	20-30
" 3rd and 4th	4-5	3	7	30-35
" 5th and 6th	6-7	3	6	35-40
" 6th and 7th	8-9	—	6	40-50
" 8th and 9th	9-10	—	6	50-55

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