

tained a milk which has the desired ratio, three times as much fat as proteid. If this be diluted with water in varying quantities the ratio will always be maintained; the addition of lime water or sodium bicarbonate complete the necessary modification of the milk.

The necessary dilution must next be considered. Holt, who is an authority, maintains that it is better to begin with low percentages of proteid, and that infants are intolerant of an excess of fat; it is necessary to train the digestive tract. Over-feeding and under-feeding are alike disastrous; the happy mean must therefore be sought.

It is convenient for calculation to make up twenty ounces of food at a time. We will suppose that it is required for a newly-born infant, and that the percentage of fat is to be 1 and the percentage of proteid $\frac{1}{3}$. Since twenty ounces of 10 per cent. milk contain 10 per cent. of fat, and $3\frac{1}{3}$ per cent. of proteid, a tenth part—2 ounces—diluted with 18 ounces of boiled water to make a twenty-ounce mixture will contain 1 per cent. of fat and $\frac{1}{3}$ per cent. of proteid, i.e., both fat and proteid will be reduced by ten. The other percentages with varying quantities of 10 per cent. milk and water may be worked out in the same manner. In each case the following rule will be found accurate.

Multiply the percentage of fat required by two; that will give the number of ounces of ten per cent. milk to be used in a twenty ounce mixture.

Thus, if $1\frac{1}{2}$ per cent. of fat be required, take 3 ounces of ten per cent. milk and 17 ounces of boiled water; if 3 per cent. of fat, take 6 ounces of ten per cent. milk and 14 ounces of water, and so on. Add an ounce of lactose, and 40 grains of sodium bicarbonate (2 grains to every ounce of mixture) dissolved in the water in each case; if lime water is used substitute an ounce of lime water for an ounce of water; the right percentage of sugar is approximately obtained, and the milk rendered alkaline.

The milk should be pasteurised or sterilised before giving it to the baby.

The following formulæ are those required during the first weeks:—

	Percentage of proteid.	Percentage of fat.	No. of ozs. of 10 p.c. milk.	Boiled water + lactose and sod. bicarb.	Quantity of each feed.
I.—First three days...	$\frac{1}{3}$	1	2	18	1 to $1\frac{1}{2}$ oz.
II.—4th to 7th day ...	$\frac{1}{3}$	$1\frac{1}{2}$	3	17	1 to 2 "
III.—7th to 10th day ...	$\frac{1}{3}$	2	4	16	2 to $2\frac{1}{2}$ "
IV.—10th day onwards	$\frac{1}{3}$	$2\frac{1}{2}$	5	15	2 to $3\frac{1}{2}$ "
V.—3rd or 4th week ...	1	3	6	14	$2\frac{1}{2}$ to 4 "

Note that the percentage of fat is always three times as much as the proteid, and that the 10 per cent. milk plus the water make a 20 ounce mixture in each case.

The baby should have ten feeds in the 24 hours, every two hours in the day, every four hours in the night.

Should it be required to make up more than twenty ounces of food at a time as, for instance, in the fourth week, it is necessary to add one-fourth more of each ingredient for every additional five ounces; e.g., if thirty ounces of formula five were required; each must be increased by a half.

Take 6 + 3 ounces of ten per cent. milk
14 + 7 " of boiled water
Add 1 + $\frac{1}{2}$ " of lactose
and 40 gr. + 20 gr. of sodium bicarbonate
to the water

It is hardly necessary to say that this method is not one which is practicable for district mothers; though it does not make great demands upon the intelligence, it pre-supposes a knowledge of arithmetic, some facility in reckoning, and more time and utensils than they can afford. The milk, too, that is sold as such in large towns seldom contains 4 per cent. of fat. In 101 samples taken in London, only four attained this standard, 68 were skimmed and 89 watered!

Baby feeding has been left far too long to what is euphoniously called "intuition"—a word cloaking ignorance and slovenliness. Legislation, medical officers of health, doctors, midwives, and nurses are bringing in a new order of things. Only in the golden age when women shall set themselves to learn the art and science of motherhood, and educated in the true sense, will the value of what appears now to many as only a tiresome and "faddy" complication be generally seen, and acted upon. To the up-to-date nurse, who is more and more called in as a specialist to supplement the ignorance of mothers, percentage feeding will appeal strongly. M.O.H.

During 1906 the number of poor women received into Queen Charlotte's Lying-in Hospital, Marylebone Road, N.W., was 1,704, and in addition 1,886 were attended and nursed in their own homes. An extension of the nurses' home is necessary, for which £10,000 is urgently required.

It is good to know that Dr. Bishop Harman, from his experience of the blind in London County Council Schools, and of ophthalmia neonatorum in hospital practice, believes that this terrible disease is diminishing in London.

[previous page](#)

[next page](#)