

OUR PRIZE COMPETITION.

WHAT DO YOU KNOW OF VITAMINES, AND OF THEIR IMPORTANCE IN RELATION TO INFANT FEEDING?

We have pleasure in awarding the prize this week to Miss Winifred Appleton, University College Hospital, Gower Street, W.C. 1.

PRIZE PAPER.

Vitamines (word derivative *vita*—life) are a group of substances present in minute quantities in natural foods such as milk; they are necessary to healthy nutrition, and if removed from any class of food, by whatever process (milling, sterilisation, &c.), their absence is responsible for the production of disease. Diseases traced to this source are known as "deficiency of food diseases," the best known being rickets, scurvy and beri-beri.

Careful regulation of diet is of the greatest help both in the restoration and the maintenance of health, and the modern advances of science throw much light upon this interesting subject with the relations of food, heat, and mechanical force.

Articles of food must be sufficiently varied to meet requirements of taste and appetite, and their conditions must be suited to the digestive powers of the alimentary tract. The exact proportions in which to use food with a minimum of waste is the problem of diet.

If insufficient food is taken, the body literally burns up its own tissues and loses weight; on the other hand, overfeeding is a predisposing cause of many infantile and adult diseases.

The influence of dietetic errors in disease production is also aggravated by such depressing circumstances as congenital weakness, cold, damp, fatigue, alcoholic excess, unhygienic surroundings, as well as prostration from febrile diseases, syphilis, &c.

An authority on the new dietetics states that "a complete diet must contain not only the protein fat, salts, and so forth that we all know about, but also other things, frequently but inaccurately called 'vitamines,' or, too modestly by Hopkins, 'accessory food factors.' If we read 'accessory' to mean 'essential,' the term will serve. In the absence of these factors there develop 'deficiency diseases' such as myxœdema, known to be due to a deficiency of certain 'internal secretions.'"

In considering diet the fundamentals of healthy nutrition and disease, with a knowledge of the composition of food and the essentials of a normal diet, must be well understood. Diet in disease should be as nearly that of health as the altered conditions of nutritional

powers will allow; rest must be obtained for a diseased organ by the removal, as far as possible, of such food elements as increase that organ's functions. Starch food should never be given before that period of life at which the saliva and pancreatic juice attain functional activity.

Infantile feeding is now brought prominently before the public, owing to the recent large rate of infantile mortality, especially in the more populous areas.

A new-born child should be entirely breast-fed for the first six or eight months, beginning as soon as nature permits, providing that both mother and child are healthy.

In many cases recourse has to be made to artificial feeding, and the simplest and best substitute for the mother's milk is that of the cow, when the proportions of its composition have been approximated to mother's milk.

A glance at a comparative table of the composition of human and cow's milk shows the necessity of diluting the latter in proportion to amount given, and age of child; this reduces the excess of proteins and fats, and the corresponding reduction of carbo-hydrates is counteracted by the addition of milk sugar. Water is usually decreased as child grows older, and finally omitted.

Special attention to cleanliness and sterilisation of the bottle is important. The bottle should be specially fitted with a rubber teat fitted direct on to a neck, and all rubber tubing should be avoided.

Whatever the method of feeding selected, if the diet is to be satisfactory it must be one from which the vitamins have not been removed.

The best means of judging whether the adopted method of infant feeding is successful is to observe weight of child; quantity of feed may be increased if no gain in weight and no signs of difficult digestion, but if child is not gaining, and there are stomach and intestinal disturbances evidenced by vomiting, diarrhoea, or constipation, the characteristics of the excreta must be carefully noted and reported, and any dietetic error should be altered or remedied.

HONOURABLE MENTION.

The following competitors receive honourable mention:—Miss J. Ferguson, Miss M. Farrer, Miss P. Thomson.

QUESTION FOR NEXT WEEK.

What is meant by "Barrier Nursing"? What are the necessary details to be carried out in "Cubicle Nursing"?

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