# **OUR PRIZE COMPETITION.**

## DESCRIBE THE CONDITION KNOWN AS MALNU-TRITION, AND THE FACTORS WHICH PRODUCE IT. WHAT STEPS CAN BE TAKEN TO PREVENT AND REMEDY IT (1) IN INDIVIDUAL CASES; AND (2) BY PUBLIC HEALTH AUTHORITIES ?

• We have pleasure in awarding the prize this month to Miss Jessie Quick, M.B.C.N., at The Court, Chetnole, nr. Sherborne, Dorset.

#### PRIZE PAPER.

### Description of the Condition known as Malnutrition.

Malnutrition is the state or condition of the tissues resulting from deficiency of the essential foodstuffs necessary for the maintenance and growth of the body, and for the provision of sufficient potential energy required to replace that lost as work and heat.

The living tissues undergo constant wear and tear; tissues broken down being replaced by fresh tissue built up from the absorbed foodstuffs.

If muscular work be performed, or even during complete rest in bed, energy is being used up to maintain bodily temperature and in the carrying out of respiration, digestion, and other internal bodily functions; therefore if the supply of energy is deficient in the food these functions can be performed only at the expense of the fat and carbohydrates or even protein stored in the body. The body suffers, in that there is :--(1) Loss of body weight; (2) Emaciation of the tissues; (3) Lowered resistance to disease.

## Factors producing Malnutrition.

The condition is met with especially among the poor —there is shortage of money—food is poor and badly stored. Good wholesome food is substituted by produce such as frozen meats, tinned foods such as milk, fish, fruit—the cheapest brands being used, so that very little nutritive value is gained.

Homes are badly ventilated and overcrowded, meals are irregular—habits are bad.

In the case of a mother, she has a large family—the husband is unemployed—there is mental stress, she starves herself in order to feed her children—she is too busy to take sufficient good exercise or to pay much attention to the cleanliness of her person or children.

Her vitality is lowered because of too frequent child-bearing—if she is pregnant, the child is being nourished from her own tissues—with the result the mother is suffering from malnutrition.

Children born under such circumstances are weakly from birth and have lowered resistance to disease, because of the poor maternal blood supply—they develop rickets, tuberculosis, enteritis and various other ailments.

# Prevention and Treatment in Individual Cases.

The treatment is to improve the conditions of the individual mother—she must have good, sound teeth, good habits, adequate sunshine and exercise; food must be fresh, palatable, digestible, easily absorbed good storage, clean, cool and fly free.

Diet must contain all necessary factors for growth and energy, a good all round diet (varied) of carbohydrates, fats, protein, salts and water, is advised. It then fulfils the three functions necessary to a healthy life:—(1) It serves as a source of energy; (2) It contains constituents necessary to replace lost, and create new, tissue; (3) It contains the protective vitamins.

Further in carrying out these oxidative changes of foodstuff the tissues must use oxygen, therefore good ventilation and fresh air are essential.

Children's food must especially contain adequate protein and the essential vitamins, for the growth of the body. If breast feeding is established the mother's condition, surroundings, diet and habits being improved the child will improve.

If artificially fed, the milk must be good fresh milk (Grade A) properly modified, and such things added to the dietary as orange or tomato juice or cod liver oil, to provide the essential vitamins.

If dried milks are used—the best brands must be used, such as Cow and Gate, and again the additional factors for the vitamin content. Where there is emaciation of the tissues due to disease the cause must be investigated and treated by medical skill.

### Steps of Prevention and Remedy by Public Health Authorities.

These authorities are doing much in the prevention and treatment of malnutrition and by various means; such as the organising of ante-natal, post-natal and child welfare centres, so that the people are kept under strict medical observation. They are taught by illustrated billposters, lectures and lantern slides—the evils of dirt, flies, poor food and neglect—the correct way to feed and clothe themselves and their children.

They are able to obtain the best baby foods, cod liver oil and other such things at considerably reduced prices. Holiday funds are organised. Overcrowding is dealt with by the provision of suitable buildings.

Health visitors, school nurses and doctors are appointed, that school children and their homes may be inspected and advice and help given. Supplies of good fresh milk and other foods are granted.

Business premises and slaughter-houses are inspected. Food in general is analysed and graded that the best may be obtained.

Aid is allowed for hospital treatment for the application of ultra violet rays for vitamin deficiency.

#### HONOURABLE MENTION.

The condition known as malnutrition is the result of lack of nutrition or assimilation or both. It is therefore dependent, primarily upon (1) the diet and digestion and (2) the metabolic activities. In a great variety of diseases, metabolism is interfered with and diet must be cut down for febrile and other functional or organic disturbances; on the other hand, when malnutrition is present, it in time results in a general weakness, rendering the patient particularly liable to parasitic and other diseases.

## QUESTION FOR NEXT MONTH.

What is understood by the term Transfusion? Discuss points of importance in regard to recipient and donor, and (a) the preparation for the operation, and (b) the steps in the operation.



