

## OUR PRIZE COMPETITION.

WHAT ARE THE PRINCIPAL CAUSES AND CONSEQUENCES OF DENTAL DISEASES. WHAT PREVENTIVE MEASURES MAY BE EMPLOYED?

We have pleasure in awarding the prize this week to Miss M. M. G. Bielby, Cranford, Middlesex.

### PRIZE PAPER.

*The Principal Causes* of dental diseases are: (1) Inferior quality of the enamel formed during the pre-natal life, due to improper feeding of the mother; frequently to her own carious teeth. (2) Lack of vitamins in the artificial feeding of infants, interfering with the growth of the teeth and causing hypoplasia. Later, lack of mineral salts and nitrogenous material in the diet. (3) Too much soft food in infancy and childhood, thus depriving the teeth and jaws of their essential work. (4) Overcrowding of the teeth by a badly shaped jaw, often resulting from the "dummy" or finger-sucking habit, or the use of defective bottle-teats. (5) Neglect of the temporary teeth. (6) Acidity in the mouth due to fermenting food particles, especially sugar, the acid eroding the enamel, after which the dentine or tooth bone rapidly decays under its action. (7) Neglect to keep the teeth and mouth clean by brushing and rinsing, particularly at night, and by giving children sweets and biscuits after they are in bed. (8) Wrong use of the toothbrush, causing the gums to recede from the base of the teeth, leading to cavity formation.

The increase of dental caries in the last 35 years synchronises with the use of white flour in making the chief articles of food.

*The Principal Consequences* of dental diseases are, by inhibiting nutrition essential to the continuance of life: (1) Malnutrition through the inability to masticate, involving the failure of the first stage of digestion. This often leads to a craving for alcohol, indigestion, gastritis, and gastric ulcer. (2) If the mouth contains carious cavities, septic roots, or pockets with pus-exuding pyorrhœa, infection is easily taken and is also carried about to others. Young children with decayed teeth are particularly liable to all the infectious diseases of childhood. (3) Pyorrhœa alveolaris, by poisoning the system, causes lassitude and nervous disorders, also infective endocarditis. (4) Rheumatoid arthritis; one medical authority attributes 90 per cent. of this to infection from the teeth sockets. (5) Obscure diseases with temperatures. (6) Anæmia. (7) Consumption and other forms of tuberculosis. (8) Nose, throat, ear, and eye troubles.

Dental diseases may be wholly responsible for rheumatism, septic poisoning in childbirth, neuralgia, neuritis, enlarged glands, mental depression, loss of appetite, appendicitis, headaches, falling out of the hair, and bad complexion. Unhygienic mouth conditions may persist unnoticed for years, and then suddenly result in some severe illness. Good health is impossible, and no drugs or serums can protect from disease with a pathological oral cavity.

*Preventive Measures.*—The most important of these is *proper feeding*, replacing white flour entirely by finely ground whole wheat, which contains the essentials for building strong teeth, including more than four times the mineral matter contained in white flour. Bread should be well baked, requiring the energetic use of all the teeth, and *all crusts should be eaten*. Plenty of hard foods demanding the full use of jaws and teeth causes the blood to circulate well in the latter and keeps them healthy. Hard crusts at the end of a meal help to clean the teeth, also developing the jaws and preventing overcrowding. No new bread should be eaten.

The teeth should be cleaned after each meal when possible, and *always* on going to bed, the mouth being well rinsed, using the cheek muscles vigorously. Warm water, with or without liquid Kolynos, boracic acid, or milk of magnesia may be used. Even better than a toothbrush is the eating of a ripe, raw apple, for the malic acid destroys the acid-forming germs.

The toothbrush must be used in the right way, namely, drawn from the gums towards the cutting edges. It should be disinfected daily, a 1 per cent. solution of trikresol being cheap and effective. Precipitated chalk and common salt are good cleaning agents. Food lodged between the teeth should be removed by a thread, preferably waxed. A reel of medium-sized Lustrine will serve.

The first sign of decay after the age of three demands dental advice. The provision of a cheap, reliable toothbrush for the million is an urgent matter and merits Government concern, as the pre-war foreign penny toothbrushes shed their bristles dangerously.

### HONOURABLE MENTION.

The following competitors receive honourable mention:—Miss Rachel Dodd, Miss M. James, Miss E. M. Robinson, Miss J. Macpherson.

### QUESTION FOR NEXT WEEK.

What is meant by decubitus? Give some characteristic examples.

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