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AMERICAN FOOD HABITS AND HEALTH

Changes in the food habits of large groups of persons may be brought about by necessity and likewise by altering customs and food preferences. Conditions determined by the war and consequences arising from it have enforced pronounced changes in the dietaries of thousands. What the outcome of this necessary response to the exigency of food situations may be is now being exemplified in the effect of the innovations on the health of the affected nations. Scurvy, beriberi and war edema are conspicuous illustrations of the extreme effects brought about by necessity, that is, by actual shortage of certain foods or by their high cost. A few months of deprivation may suffice to send deficiency diseases broadcast among people previously living in good health and working efficiency.

The other category of change in food habits by which new dietary customs come into vogue and older choices lose their popularity is slower in becoming manifested. The more permanent revisions of food preferences are not ordinarily created by famine, war or pestilence. They develop slowly, like other changes in styles; nevertheless they do arise, despite the fact that many persons assume that our food practices are perennially the same. Recently the Office of Home Economics in the United States Department of Agriculture¹ completed a comparison of the foodstuffs purchased by 500 families with the amounts of the same foods purchased by 400 families about twenty years ago. The outcome shows that the amount of meat in the diet has decreased about 8 per cent., and grain products about 11 per cent., while dairy products have increased about 6 per cent.; vegetables, 4 per cent., and fruits, 8 per cent. The average amount of meat and fish supplied in the diet in the 500 studies was about 6 ounces daily per man: dairy products, 16 ounces; grain products, 13 ounces; vegetables, 16; fruits, 9; sugar and syrups, 3, and fats, 2 ounces.

The statistics indicate, so far as such broad generalizations which deal with the quantity of nutrients rather

than the special qualities of the foods can be depended on, that the "average" diet of such groups is adequate. The use of milk increased up to 14 ounces a day in the period under consideration. This is scarcely more than one-third quart a day; and since the amount of milk did not increase in accordance with the greater number of children in the families studied, the undervalued importance of milk in the dietary still deserves to be emphasized to the American public. Few of the dietaries were seriously below the accepted standards for the more important mineral ingredients required, namely, iron, calcium and phosphorus. The average dietary is more likely to be deficient in iron than in the other elements mentioned. The data indicate that milk and other dairy products supply the greatest percentage of calcium; vegetables and grain products, the greatest percentage of iron; and dairy and grain products, the greatest amount of phosphorus, and in each case at the lowest cost.

THE CONSEQUENCES OF BURNS

The pathogenesis of the severe symptoms, often ending in death, which may follow burns has long been a matter of speculation. The widely unlike character of the phenomena involved makes it more than probable that differences in the degree of injury are attended by a variety of untoward consequences not necessarily dependent on a common cause. Thus, in burns of the first and second degree there is little, if any, actual destruction or disintegration of the tissues, the reaction being more nearly of a severe inflammatory character. On the other hand, in the severe damage of burns of the third degree, when subcutaneous cellular tissues are actually destroyed, unusual chemical products may be generated, and their possible deportment in the organism must be taken into account. It is easy to understand how local symptoms arise in the case of burns; but the nature of the less frequent but more aggravated general phenomena, with their remote effects, has been more puzzling.

An unusually large number of observations on a group of persons more or less severely burned in a munition factory near Frankfort¹ has afforded an opportunity to test, on a considerable scale, the validity of some of the theories that have been advanced to explain the consequences of burns. The theory of Sonnenburg,² which attributed death to a reflex depression of the vasomotor tonus, failed to receive support from these clinical cases. Vasomotor shock was not a common manifestation. Marked changes in the blood, reported by a number of observers, have been emphasized as factors of primary significance. Alterations in the form of the red corpuscles with hemoglobinuria,

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1. Becky, K., and Schmitz, E.: *Klinische und chemische Beiträge zur Pathologie der Verbrennung*, *Mitt. a. d. Grenzgeb. d. Med. u. Chir.* **31**: 416, 1919.

2. Sonnenburg: *Die Ursachen des Todes nach ausgedehnten Verbrennungen*, *Deutsch. Ztschr. f. Chir.* **9**: 138, 1877; *Virchows Arch. f. path. Anat.* **80**: 381, 1881.