

The usual treatment has been to allow about four days for a surgical patient to return to full diet. Bland, usually tasteless foods are offered first. In studies made by the Canadian Army medical research unit, which has pioneered in research on nutrition in convalescence, it was found that patients in the hospitals surveyed were receiving from 45% to 55% of the calories and 35% to 47% of the protein content of the full ration laid down for them. One-third to one-half of their food was under-drawn or wasted in the kitchen; the remainder of the unconsumed food was found left on the plates, partly because it was unappetizing, partly because the patients had poor appetites and partly because no extra effort was made to persuade them to finish. It is safe to assume that under the old procedure patients were often receiving much less than their nutritional needs.

To remedy this situation an educational campaign and special lectures were provided for medical officers, nursing sisters, dietitians, quartermasters and cooks in the army hospitals, for the only way to combat loss of nitrogen is to take in large amounts of proteins and calories.

Diets providing 150 to 200 grams of protein and 3,000 to 4,000 calories were devised, and patients are started on them right away after injury. It was found that the best way to supplement the regular diet to achieve high protein, high caloric intake was by adding "Casec Milkshakes" to the diet. The ordinary milkshake (containing milk, ice cream, sugar, cocoa and lactose) is worth 112 calories and 10 grams of protein. By adding two eggs and 20 grams of "Casec" (calcium proteinate) the value of the milkshake is raised to 637 calories and 41 grams of protein. The patient is given two of these drinks a day, one for "afternoon tea," midway between lunch and supper, and the other at bedtime. In this way 82 grams of protein and 1,274 calories can be added to the regular diet.

When patients are unable to drink these milkshakes they may be administered by gavage or stomach tube; by this method the milkshakes or other liquid formulas can be dripped into the stomach over a long period. This is usually necessary for the first few days after injury, but after that the patient can usually drink the rich milkshakes themselves.

First formulated by a United States doctor, "egg-noggs" of a special kind have proved beneficial in burn cases. Each egg-nogg, containing six egg whites, a quart of milk, orange juice, brewer's yeast, "Casec," lactose and ground raw liver, has a value of 2,300 calories and 153 grams of protein.

These discoveries have made a radical change in both pre- and post-operative treatment and are of lasting importance in Canadian medical development. They have been put in practice long enough for a considerable amount of experience to have been gained and they have shown results.

Patients given high protein, high caloric diets have been protected against general physical deterioration and loss of weight, against metabolic upsets and against complications; their convalescence has been shortened by as much as 50%; and local wound healing has been improved. When the patient is ready to leave hospital he should be ready to go back to work, instead of having to take several weeks or months to "build himself up" again.

In some cases of severe burns patients have committed "metabolic suicide," as one doctor puts it, through diet deficiencies. The old practice of starvation and smaller-than-normal diets for persons suffering the effects of accidents, wounds and operations has been scrapped.