

YOUR BODY AS A CAR By Bruce H. Wooley, Ph.D.

It might have been written in a lawyer-like tone, but a statement recently released by a subcommittee of experts on diet and athletic performance --- sanctioned by the International Olympic Committee itself --- put the importance of overall nutrition into very clear terms.

The statement said: ~An adequate diet, in terms of quantity and quality, before, during and after training and competition, will maximize performance." Most athletes, therefore, are very anxious to know what type of diet will maximize their performance. Can the well-conditioned athlete afford to ingest "junk food" such as a candy bar or a greasy hamburger?

To begin with, there is no such thing as a perfect food. Different foods contribute different nutrients in different quantities. Some foods, referred to in popular publications as "junk food," contribute far more calories than they do nutrients. The athlete in training, therefore, would be wise to emphasize those foods that contribute the greatest number and variety of nutrients, in addition to the calories they provide.

Your body is like a finely-tuned race car. Improper fuel (in the case of the body, calories with few nutrients) can be used for a time, but before long the performance of the engine suffers, and the car ceases to function at top efficiency. Not only is fuel (calories) needed, but other substances as well; brake fluid, automatic transmission fluid, coolant, oil, etc. The body similarly needs other substances in addition to calories; protein, vitamins, minerals, water all of which can be obtained by wise choices of food.

The IOC consensus statement on Foods, Nutrition and Sports Performance states that the optimum diet for most sports consists of carbohydrate providing about 60 to 70 percent of total energy intake, protein about 12 percent, with the remainder being provided by fat. Total energy intake must be raised to meet the increased energy expended during training and performance. For example, protein requirements are higher for individuals involved in physical training than for inactive people.

In long duration for high intensity events, performance generally is limited by availability of carbohydrate in the body. High carbohydrate diets will maximize carbohydrate (glycogen) stores and improve performance in that activity.

The IOC conference concluded that a high carbohydrate diet also is necessary to sustain daily high intensity training. After exercise, the diet should contain enough carbohydrate to replenish the depleted glycogen stores and to help enhance recovery time after exertion.

