



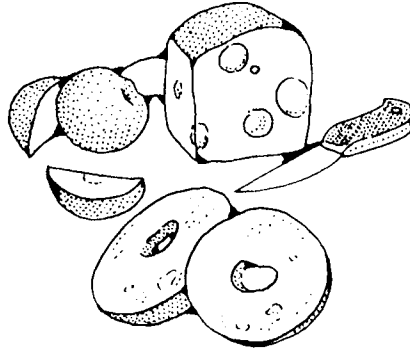
# AdironDoc

## Backcountry Health and Hygiene

### Healthy Eating on the Trail

When it comes to meals on the trail, there seem to be two extremes. The utilitarians look upon eating as a necessary impediment to their enjoyment of the wilderness. They get by on mac 'n' cheese, oatmeal packets and loads of gorp. On the other end of the spectrum are the backwoods epicures, for whom gourmet meals are as much a matter of pride as are peaks bagged. Although I find myself closer to the latter group, the reasons have little to do with health.

As important as nutrition is to overall health, the role of diet on a brief backpacking trek is minimal when compared to what one is eating the rest of the time. The basic principles that



should guide nutrient selection on a backcountry venture are straightforward and easy to summarize. The experienced camper might also wish to consider some "holistic" approaches to trip nutrition.

The dietary components most often thought of when "nutrition" is mentioned are **vitamins and minerals**. Neither needs to be of much concern to the backpacker. Although typical camping meals are frequently marginal in minerals such as iron and calcium and in vitamins such as C and B12, deficiencies of these components take weeks, months, or more to develop. Although it may make one feel better to take a multivitamin supplement while on the trail, there is no reason to do so.

The main reason we eat is to provide **energy**. Energy intake and consumption are measured in calories. Although this is quite variable, a typical individual might expend 2,000 calories per day. Backpacking, according to estimates by the National Outdoor Leadership School (NOLS), requires about 3,000 to 5,000 calories per day. This should not be interpreted as meaning that an immediate increase in calorie intake should accompany any hiking trip, however. Most energy utilized for backpacking comes from the body's stores, in the form of fat or muscle glycogen. Intake is principally used to replenish these stores, and a mild energy deficit developing over a few days is of no importance. In fact, trying to double or triple one's calorie intake within a few days would be difficult, and would likely lead to gastrointestinal distress. Although participants on lengthy expeditions need to increase their intake to maintain energy balance, they usually do this gradually.

All dietary energy is in the form of **fat, protein or carbohydrate**. Fat is the most concentrated energy source, more than double that of the other two. Although modern guidelines for healthy eating correctly stress *reducing* the percent of calorie intake coming from fat, backpackers probably want to *increase* their fat intake, especially on prolonged or particularly demanding treks. This is most easily done with nuts and cheeses, as well as liberal use of oils in cooking.

The bulk of calorie intake for most individuals is in the form of carbohydrate. While the simple sugars in drink

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mixes certainly give an appreciated boost, the *complex carbohydrates* (pasta, bread, etc.) are ideal for the demands of backpacking. Protein intake is less important on a trek. Proteins are a less concentrated form of energy than are fats, and the metabolism of protein produces waste products that require additional water for excretion. Since water intake among backpackers is sometimes marginal, there is no reason to place additional demands on the body with a high-protein diet.

**Fiber** is a dietary component that is not absorbed from the intestine. In general, the less processed a foodstuff the more dietary fiber it will contain. Whole grain cereals, beans, legumes and dried fruits are typical backpacking foods with high fiber content. Diets low in fiber tend to be constipating. While this may be a practical benefit on a brief trip (such as a long weekend), constipation can actually be a cause of considerable distress on more lengthy ones. Adults should probably aim for about 30 grams per day of dietary fiber.

The final matter is that of where all this energy should come from. Here, I will take the liberty of stepping from science and medicine into wilderness philosophy. Modern industry has provided us with a great variety of backpacking foods, all highly processed, heavily packaged, quite nutritious and simple to prepare. These foods, which line the shelves at all of our favorite gear stores, are perfectly healthy, and there is no scientific reason not to use them.

I hate them.

Cost (both out-of-pocket and the environmental cost of all the packaging) is but one reason to eschew such products. Another gets at the heart of why many of us go to the wilderness. I look forward to treks as an opportunity to get away from a society which, like such foods, is quick, processed, bland, and disposable! I seek experiences that will bring me into closer touch with the earth and with my more basic needs. One component of this, in my opinion, involves selecting simple, basic ingredients that are easy to prepare on the trail. An ideal "backpacker's pantry" features pasta, rice, polenta, cous cous, dried fruits and vegetables, falafel, flour, yeast, and similar ingredients. With a personal spice kit, imagination and some good recipes, these can be translated into an awesome variety of easy-to-fix, wholesome, tasty meals. The ingredients are inexpensive, easy to repack, and widely available; chances are, you walk by them in the "health foods" section of your grocery every week.

If you have relied on specialty backpackers' meals in the past, give this a try on your next trek. You may enjoy eating more, and will really get the sense that you have integrated your

nutrition into the rest of your wilderness experience.

—Thomas R. Welch, M.D.

[For further advice on this method of trip nutrition, there are two excellent references: *The NOLS Cookery* (Claudia Pearson; Stackpole Books, 1997) and *Simple Foods for the Pack* (Claudia Axcell, Diana Cooke, Vikki Kinmont; Random House, 1986). I have found both to be invaluable. Their tones reflect their organizational affiliations; the NOLS

publication is heavily into technical detail, while the Sierra Club book is a bit more into the philosophical underpinnings of this approach.]



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