

Pasta: Pasta can form a major part of your field diet (whole grain pastas are nutritionally superior). Noodles of various shapes and kinds make an excellent start for one-pot meals. They cook in about 8-minutes of boiling (frequent stirring keeps them from sticking) and are quite nourishing, since they are generally made with egg as well as flour. However, don't make the mistake some hungry backpackers have made of counting on ramen noodles as a complete main-course (most have less than 200 calories). Ramen noodles can supplement MRE's or form the basis of a one-pot meal to which you add meat and vegetables. Packaged macaroni and cheese can also be made into a complete main-course by using the "15-Minute Dinner Ideas" found on a Kraft box. Prepare the macaroni and cheese normally and then stir in a half pound each of cooked meat and cooked vegetables with some spices or extra ingredients. Some combinations suggested by Kraft are: ground beef, stewed tomatoes & 1-tsp. chili powder; chicken, broccoli & 2-tsp. mustard; tuna, peas, 1/4-tsp. Italian seasoning; Italian sausage, broccoli, 1/4-cup chopped red pepper. You might also consider the ease of preparation and flavor variety of Hamburger Helper or Noodle Roni type main-course pasta dishes. A variety of sauce mixes (like Stroganoff, Fettucine Alfredo or broccoli and mushroom sauce) can add a welcome change to a monotonous field diet. Discard the original packaging and consolidate the pasta from all the boxes into a single container. Empty the sauce mix packets into separate bags for each type (along with instant dry milk if the recipe requires milk). With a permanent (not water soluble) marking pen, write preparation instructions on the bag or an enclosed slip of paper. Write instructions both for single servings and for the number of portions that will fit in a large cooking pot shared between 3 or 4 people. Carry a small plastic drinking/measuring cup and a set of plastic measuring spoons (not necessarily the whole set, just what you need) to measure out the required number of portions.

Rice, Barley, Buckwheat, Grits: These are handy staples for preparing many good dishes, from cereals to main-courses (like with potatoes and pasta, sauce mixes can conveniently add variety). The instant forms are less nutritious, but are much easier to cook. A lightweight aluminum backpacking type pressure cooker reduces the cooking time required for these staples, and is the only practical way of cooking brown rice (which takes twice as long as regular long grain rice) over a single-burner backpacking stove.

Soup Bases and Instant Soup: In addition to making a quick cup of soup, powdered bases and bouillon are also useful as flavorings for many dishes. When using them, remember that most bases contain a considerable amount of salt; use them cautiously. Don't carry single servings of instant soup; consolidate them into separate zip-lock bags for each type. Instant pea soup mixes are filling and a good source of protein, especially if rice, noodles or some other grain is included in the meal.

Sweeteners: Brown sugar is more versatile to use and easier to pack than white (put a piece of apple in the container to keep it soft). Honey, molasses, syrups and jam should be placed in plastic jars or bottles with tight-fitting lids (for extra protection, pack them inside a plastic bag).

Fruit Drinks: Instant fruit drinks and gelatin desserts are good to drink either hot or cold (nothing beats a hot cup of Jell-O with a little margarine for sleeping warm). Get mixes with vitamin C and sugar already added. More expensive artificially sweetened drinks don't have the nutritional value of sugar, but weigh less (lemonade or lemon flavored ice tea mix with Nutrasweet is good prepared half-strength to mask the taste of iodine after using water purification tablets).

Instant Desserts: Instant puddings and cheesecake can be packed in small zip-lock freezer bags (with dry milk if the recipe requires). To prepare just add cold water, mix it in the bag, chill in a cold stream if available, and then eat right from the bag.

Candy: If you choose to eat candy, make it in addition to an already nutritious diet. Fruit candies are more practical and offer a greater variety than chocolates. Nut candies are nutritionally superior.

Spices: A good spice kit can make the difference between superb cuisine and bland, monotonous meals in the field. A good basic selection includes salt (carry extra, which you will need if you are perspiring heavily), pepper, cayenne pepper, cinnamon, nutmeg, dill, curry, oregano, sage, chili powder, cumin, onion powder and garlic. Tabasco sauce, salsa, soy sauce and worcestershire sauce can also add a dash of interest to a simple meal. Spices are best carried in small plastic bottles or covered shakers with a few grains of rice to absorb moisture. Flip-top lids are available to convert plastic 35mm film cans into handy salt and pepper shakers.

Adjusting Rations for High Altitude and Cold Weather. The higher the altitude, the less oxygen is available to metabolize food. Complex molecules such as proteins and fats may be harder to digest under these conditions. Fats can still be a very important source of concentrated, long-lasting energy, and some people are not bothered at all by digestive problems at high altitude. Take it easy the first time out, and if they give you no difficulties, then keep high energy fats in your rations and even increase them to about 40 percent of your diet. High altitude increases cooking time, which will roughly double for every 6,000 feet. At 15,000 feet water boils at 184 degrees and will not get

hotter without a pressure cooker. At 11,000 feet fresh carrots can sit in a boiling stew pot for hours and all you end up with are hot, raw crunchy carrots. A meal that takes thirty minutes to cook at sea level is not practical at high altitudes. Frying is not much affected by high altitude.

Cold dry air absorbs water from the lungs and the body loses fluids with every breath (visible or not). Extra soup and drink mixes should be added to your rations for cold weather or high altitude. Taking additional liquids will increase your blood volume, which aids digestion and helps prevent frostbite and hypothermia. Coffee and other diuretics should be used in moderation because they prevent the body from absorbing water and dehydration may result. An adequate supply of water is top priority in cold weather, even though it may be more difficult to find. Snow must be melted slowly over a low flame or it will taste scorched and be undrinkable. If you have to melt solid snow, place a bit of water in the bottom of your pot and stir constantly. Snow can also be melted in a porous cloth bag suspended over a container near a fire (no closer than you can comfortably stand indefinitely). After each meal, melt an extra pot of water and fill water bottles. A warm water bottle wrapped in a mitten or wool sock helps to keep your feet warm while you sleep. Have both food and water available at night; thirst and hunger are the major reasons people sleep cold. A high-fat, high-protein recipe to munch on and keep warm is the "Iron Man Mix"; one part each of raisins, cubed nonprocessed cheese, peanuts and diced beef jerky. On snowy peaks during the summer, you can use the sun to melt drinking water. If you are spending the day in camp, put a dark colored tarp or rain parka in a hollow in the snow. Then place a small amount of snow in the tarp and continue adding snow as it melts. The sun's energy will melt large amounts of water fairly quickly.

Personal Field Cooking Equipment. During the Revolutionary War, meals in the field were cooked over open fires in cast iron pots (one for every six to twelve men; the officer's pots had lids). Each soldier carried a canteen, a tin plate or wooden bowl, and a wooden or pewter spoon. Seasoned veterans carried big spoons so they could eat fast and get seconds from the pot before they ran out. As a modern day Minuteman, how you equip yourself for field cooking depends upon your personal experience and the mission. At a minimum you should have an individual mess kit (GI or a commercial nesting set), a canteen and canteen cup, a large spoon (GI mess kit type or heavy duty lexan plastic), a P-38 type folding can opener, and a pocketknife. You should also have a folding pocket stove (the British Army type is best; carry plenty of band-aids if you get a cheap Taiwan copy with loads of sharp corners) or a canteen cup stand with solid fuel. Such a compact stove will allow you to warm a pre-cooked meal, cook individual servings and prepare hot beverages. Hexamine fuel tablets are relatively inexpensive in the camping sections of discount stores. The US military issues trioxane fuel bars, which can be found in surplus stores. Both types of solid fuel can also be used as

tinder to get stubborn, damp kindling started; trioxane is especially easy to ignite with a Gerber Strike Force emergency fire starting tool. If you get a commercial mess kit, spend the extra money for stainless steel; aluminum camping mess kits are quite thin, so food scorches and burns easily. A good value in mess kits is the Stansport one-person stainless steel cook set (about \$17 at Bi-Mart), which has copper bottoms for quick and even heating, features fold-away stay cool handles, nests compactly into an included nylon case, and consists of an 8-ounce plastic drinking/measuring cup, a 3/4-quart pot with lid, a 1-quart pot with lid, and a 5-1/2 inch frying pan. In addition to the canteen on your belt, you may wish to carry dry staples (like rice, pasta or dried potatoes) in wide-mouth 1-quart polycarbonate plastic bottles (Nalgene and Reliance are popular brands; Reliance is considerably less expensive). When empty, they can be used as extra canteens or for soaking dried food in your rucksack while you're on the move (put dried food and water in the bottle at noon and it should be ready for cooking by evening meal time). You might also add an insulated plastic or stainless steel drinking mug, to prevent burning your lips and to keep beverages hot. A 2-quart or 5-quart GI bladder canteen can be useful for carrying water from a water source to your cooking area in camp.

Cooking Canned Rations. There are three basic methods for you to cook canned rations in a tactical environment. The least popular method is to open the can, empty the contents into your mess kit or canteen cup and heat it. It's after the meal that your problems begin; trying to clean your cooking gear, which you never seem to have the time or enough water to do. If you don't get it clean enough, you will wish that you had the next time you use it and then have to make an urgent "shovel recon" of the bushes. A cleaner cooking method is to pierce the lid twice and place the can half submerged in boiling water for 10 minutes. This is slow and uses a good deal of fuel and water, but is the method described in the British ration pack instructions and is the recommended method for heating MRE pouches in a canteen cup with a stand and solid fuel. Water used for heating cans becomes contaminated with zinc and should not be used for drinking purposes. The third method of heating canned rations is to make a shallow dent in the side of the can and place it on the stove. When the dent bulges out or resumes its normal shape, remove the can, holding it away from you pierce it to release the pressure, open it and eat the contents right from the can. Heat unopened cans slowly and remove them promptly when the dent bulges out or they might explode. An advantage of this heating method is that if you are attacked while cooking you just put the can in your pocket or rucksack (be careful, it will be hot) and continue to cook it whenever you have the time. Also, unlike the first two methods it produces no steam (visible over great distances in cold conditions) or cooking odors. When finished with canned rations, top and tail the cans (remove the lid and bottom), flatten, burn to remove food remnants, put them in plastic garbage bags and carry them with you. This process keeps down the amount of insects in camp and denies the enemy tactical intelligence from examining your

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