

Food Preparation and Safety

Better Times Emergency Notes

SAFETY NOTES FOR EMERGENCY COOKING. If there are problems with the food distribution system, work together with your neighbors to ensure community food security during the emergency. Set up soup kitchens in homes or public buildings. Organize potluck meals and community kitchens; food may be available, but fuel for cooking may be in short supply. For many people it will be safer to prepare food in community kitchens than to use emergency cooking methods in homes or apartments. Never use charcoal briquettes or Coleman-type fuels inside for cooking. Carbon monoxide poisoning is serious business. Small propane camp stoves can be used indoors with proper ventilation, such as placing the camp stove in front of a window open 1/4 inch or an open door. Placing the stove in front of an open window/door keeps exhaust fumes from spreading through the room). Symptoms of carbon monoxide poisoning include headache, lethargy, blurry vision, room feels "stuffy". If symptoms occur, get fresh air into the room immediately or move everybody out fast. Pregnant women and unborn babies are particularly at risk. DO NOT use wood inside at house for cooking unless you have a fireplace or properly installed wood stove. If you need a campfire, build it in a safe place outside. Use bricks to make a stand for a pot or to hold a grill in an open fireplace or on a campfire. Don't leave open flames unattended.

Baking on top of a camp stove. (1) Place a cast iron skillet or cookie sheet on top of the burner(s). (2) Put something on top of this to raise the cooking pan up and allow air to circulate underneath. This could be a low cake pan, or empty tuna cans, or the trivet from your gas range. (3) Put the food to be baked in a covered pan on top of the "risers". (4) Make a tent from several layers of foil over the cake pan, so that air can circulate beneath it, and put a small vent hole in the top of the aluminum foil. Large cans or pot lids also work as covers. Keep an eye on the food as it is baking. You may have to flip biscuits so that they brown on top. **Chafing Dish cooking.** Chafing dishes come in many different sizes and use small cans of jelled fuel for heat, some use candles or denatured alcohol burners. A fondue pot is a type of chafing dish. The small stand supporting the chafing dish can be used with a skillet or omelet pan, or a pot for soup or stew. It takes up to a half hour to warm a can of food with a candle. Buddy burners can also be used with chafing dishes. "Buddy burners" and candles can be used with chafing dishes.

Solar cookers. Solar cookers are made with cardboard boxes, aluminum foil, duct tape, and glass. Such ovens can get to 350 degrees, hot enough to bake meats and casseroles. A solar cooker works by reflecting light onto a dark pot through a clear transparent cover such as glass or an oven baking bag, and insulating the pot so that the heat does not radiate out but rather cooks the food. Crockpot recipes will generally work in a solar cooker. Work with materials you have at hand to create an insulated container with a clear top that can be heated by the sun. **Non-electric crockpot.** Use a box or bucket big enough to pack 4 inches of insulating material on all sides, top and bottom. Line the inside with aluminum foil, and put insulating material on the bottom (such as newspapers, cloth, sawdust, hay). Bring the food to a boil, cover the pot (3 - 6 quarts) and put it in the container. Pack the top and the spaces between the pot and the sides of the box or bucket with insulating material, and put the lid on. Good for up to 4 hours cooking..

Food cooks faster in covered pots. Be thrifty with scarce fuels, combine methods (such as using a camp stove to bring beans to a boil, and then the non-electric crockpot to finish the job). Consult Scout manuals for other methods of cooking over open fires. Work with your neighbors to ensure community food security.

FOOD SAFETY IN A DISASTER. Cold foods must be kept cold (below 45 degrees F.) to prevent spoilage. If the power goes off, open your refrigerator and freezer as little as possible. Wrap the freezer in blankets or newspapers, or stack bags of clothes or mattresses against the walls & on the tops. Shield it from direct sunlight, and don't heat the room it is in. Eat the items in the refrigerator first, the same day the power goes off. (Invite the neighbors for a disaster buffet potluck.) If you are frugal in opening the freezer, the food inside will stay below 45 degrees for 3-5 days. Be careful about storing prepared foods without refrigeration. If it is cold winter, put food in an insulated box (such as an ice chest) in an unheated room or porch. Pack it with snow or ice (if available). Put a thermometer in the box and check it several times a day to make sure it is staying below 45 degrees. Protect the cold box from sunlight. When cooking, estimate food portions carefully, as you may not be able to refrigerate the leftovers. Spoiled foods may not have an offensive odor, so while the presence of a bad odor is a sure indicator of spoilage, its absence may not be an assurance of safety. **Don't take chances! If in doubt, throw it out.**

Creamed foods, soft cheeses (cream cheese, spreads, cottage cheese), gravy, mayonnaise, salad dressings, pork, & poultry spoil quickly. Dispose of them if the refrigerator has been without power for 12 hours. Seafood, chopped meat, and poultry sandwich fillings are not safe after 4 hours without refrigeration. Hard cheeses will be fine at room temperature for several days. To preserve for longer periods: Dip the cheese into a salt solution (salty enough that an egg floats) and place on a rack to dry overnight. On the 2nd day, rub with salt and leave on the rack. Do this again a 3rd day. By this time a rind should be developing. If it feels dry and smooth, continue to the waxing; if not, rub with salt and let dry another day. **Waxing:** Apply 3 or 4 coats of wax (either with a brush, or by dipping into melted wax, melt the wax in a double boiler, which is a pot of water with a smaller pot inside), let the wax dry between each coat. Wrap with cheese cloth, and continue the process of dipping and drying until several layers later the cheese is completely covered with a smooth wax exterior. It will continue to age inside, but remain good. If you do find mold on hard cheese, scrape or cut it off. Sour milk can be used in baking (corn bread, pancakes, waffles, biscuits, sour dough starter). Butter will keep for several days, and

clarified butter will keep for months without refrigeration: **To clarify butter:** melt it slowly over low heat, boil slowly until the solids collect together in the bottom of the pan. The butter oil will be clear and golden. Sometimes a bit of scum floats up to the top; skim that off. Ladle off the clarified butter, leaving the solids in the bottom of the pan (you can pour the remaining bits of butter oil and solids through a cheese cloth to extract all the butter and leave all the solids behind). Store in an airtight container. Whole un-cracked eggs will keep for several days at a cool room temperature.

Emergency food preservation: meats and vegetables can be preserved by pressure canning. Fruits and pickles can be preserved by boiling water canning. Consult resources such as the Ball Blue Canning Book for the necessary times. Vegetables can be dehydrated. If electricity is not available, they can be dried in the sun. Place trays of thinly sliced vegetables or fruits in the sun, covered with screen (to keep flies and insects away from the food). They can also be placed on trays on the dash boards and seats of a car, which is then parked with the windows rolled up in the sun.

EMERGENCY FOODS. Anticipate the needs of spring and summer by building greenhouses (depending on local climate) and preparing for community gardens: use sheets of plastic, PVC pipe, poles, lumber or windows scavenged from houses to build greenhouses, egg cartons and other small containers can be seed starters, buckets can be planters. Start compost piles for fertilizer. Learn new skills and teach others. Network with groups such as gardening associations and agriculture and extension agencies. Forage for edible wild greens and flowers. Authorities may distribute emergency foods such as wheat and soybeans. Home processing of whole grains is labor intensive, so organize community processing centers. In an emergency, people may refuse to eat unfamiliar food; **encourage people to eat, even if the food is unfamiliar to them.**

Emergency grain grinder: cut three, 30" lengths of 3/4" steel pipe (such as water pipes), wrap each pipe with duct tape. Tape the 3 pipes together, so there is a "working end" where the pipes are level with each other and smooth. Cut the top out of a large can (a large juice can is ideal). Put 1" of clean, dry grain in the can, put the can on a smooth hard surface (such as concrete). Sit with the can between your feet, and put the bundle pipes in the can. Move the pipes up and down about 3 inches, with rapid strokes. It takes about 4 minutes of pounding to make 1 cup of flour. You can sift this using window screen (thus providing cracked wheat and flour) or thin nylon or cheesecloth. The finer the grind, the easier the digestion. Beans can also be ground with this procedure. Wheat may be "parched" before grinding. Heat in a dry skillet, until slightly puffy (this can then be cooked with water and eaten as a porridge, or ground into flour for baking.) Sprouting the wheat or the beans makes grinding easier and enhances taste and nutrition.

Bulgur wheat: Bring to a boil one part rinsed whole wheat kernels plus two parts water, then simmer until the berries are tender (about one hour). Spread the berries on a cookie sheet and bake in a 225° F oven, stirring occasionally, until dry (about one hour), or dry in the sun. Grind in a blender, or grain grinder, or crush with a rolling pin, to the consistency of cracked wheat. **To make the bulgar wheat pilaf:** saute onions and garlic and bulgar wheat in oil. Add 2 parts broth, stock, water with bouillon, to one part bulgar wheat, plus dried herbs such as sage, thyme, rosemary, basil, oregano, parsley. Cooked or stir-fried vegetables and/or chunks of mat can also be added. Be liberal with the seasonings. Bring to a boil, reduce heat, simmer until liquid is absorbed

Soybeans must be cooked before grinding for flour or grits. Soy flour may be substituted for up to 25% of the wheat (or other grain) flour in quick breads, and for up to 15% of the grain flour in yeast-raised breads. It increases the nutritional value of the recipe. There are two ways to make soy flour or grits: dry heat (in an oven) which is typically used in Asia, and wet heat (boiling) which was developed in the West. **Dry Heat Method:** For both soy flour and soy grits, first soak the soybeans in water for 8 hours, drain, and then bake in an oven, solar oven, or in a covered oven/pan over a campfire or cooking stove; you want the equivalent of about 350 degrees for 15 minutes. Stir the soybeans, then bake again for 10 minutes (stirring them after 5 minutes). Grind finely to make soy flour, or crack coarsely to make soy grits. **Wet Heat Method:** (1) Dissolve a pinch of baking soda in five cups of boiling water, add 1 cup dried soybeans. Simmer over low heat for 25 minutes. Drain, rinse with cold water. Dry in the sun or in an oven at low heat until dry (sun drying will take a day or so). Grind to a fine flour. To enhance its nutty flavor, toast it lightly in a dry skillet over moderate heat, stirring occasionally. To make soy grits, grind the boiled and dried soybeans coarsely. To cook soy grits, add water and cook like rice, flavoring it with herbs and spices

Soy milk: Bring 3 cups water to a boil, then slowly add 1 cup soy flour (do not use toasted soy flour), stirring constantly with a whisk to prevent lumps. Reduce heat and simmer for 20 minutes, stirring occasionally. Line a colander with cheesecloth or nylon mesh (a nylon stocking works well) and place over a large bowl or pot. Strain the soy flour mixture through the lined colander. Stir sweetener or other flavoring into the strained soy milk and use immediately or refrigerate. **Weaning food for small children:** Mix cooked finely ground soy grits with cooked rice and reconstituted powdered milk (30% soy grits, 60% rice, 10% milk powder).