Choosing Camping Stoves

Camp Stove Tips

What camping stoves and camp stove fuel-types are best? Is liquid fuel or canister easier? Which hiking or backpacking burner is best?

Important information about camping stoves...

What type of camping, hiking, or backpacking do you do? Do you camp at parks, out of your car, or do you carry everything on your back? Do you camp only in North America?

Do you need a camping burner for winter camping or do you mostly camp during the summer when it's warm out?

Will you be carrying it for long distances? What type of fuel do you want to use?

How many people will you be cooking for?

If you don't know the answers to some of these questions this camping stoves guide will help.

In general camping stoves that are easy to set-up and take up as little room as possible when you break them down are better. Fuel supplies that can be disconnected from camping stoves also make life easier. Good camping stoves should have a good base-of-support and avoid ones that tip on less-than-ideal surfaces or when they have a big pot on top of them.

You want the most reliable, durable, compact, light, easy-to-use, camping stove that performs well in all the conditions you encounter. For example, if you travel outside the U.S. take a look at multi-fuel camping stoves because white gas is hard to find. If you cook for your family then you'll want at least two burners.

Two burner camping stoves, for families and groups, are bigger so you can heat more than one pot at a time making meal preparation much easier. They're great for camping at campgrounds or whenever you don't need to move them around much. If you are hiking or backpacking you'll want to avoid dual burners and look at lighter camping stoves.

Light-weight camping stoves can weigh less than 4 ounces, not including the fuel and container. Better camping stoves are designed to fit inside other equipment used for camping, like cookware or even part of itself. This makes packing and carrying easier and less time consuming. Both two burner and light-weight stoves are divided into two types, liquid fuel or canister.

Types of Camping Stoves

Liquid fuels require pumping to pressurize the fuel tank and priming (lighting fuel or another substance to warm the liquid fuel so it vaporizes and ignites) to help them light off. They can take longer to start and bring to full temperature.

Once they're going, liquid fuels usually burn hotter, but they also require more attention when you're trying to gently warm food. Some liquid fuel camp stoves offer adjustability while some don't, if you're looking to gently simmer something gourmet in the woods then you may want to look at the canister-type stoves below. They can also require more cleaning and **camping stove maintenance.** Quick tip: Get a filling funnel with a filter to help prevent future clogging. If you're a real clean freak you could even use filter paper or a coffee filter. ;-)

Liquid fuels

Alcohol burns cooler than other liquid fuels so it takes more fuel and time to reach temperature. It burns cleaner but is more difficult to find outside North America.

Kerosene is a dirtier burning fuel and can gum up the workings of camping stoves; although it is cheap and available throughout most of the world. Because of it burning dirty you'll have to clean up after it more often than white gas or alcohol. Kerosene does evaporate more slowly than white gas though, so spills won't ignite as easily.

Unleaded gasoline is the same stuff you put in your car and is widely available throughout the world. It burns very dirty and evaporates quickly. Accidental spills can ignite very easily and violently. Avoid using unleaded gas because it should only be one of your last choices.

White Gas is common in the United States, inexpensive, provides intense heat after a brief start-up, and performs well in most weather conditions. White gas isn't available worldwide. If spilled it can be easy to ignite accidentally, but it does evaporate quickly. If you're looking at liquid fuel camping stoves, white gas is my fuel of choice. I recommend the **MSR WhisperLite Stove at Back Country Store** (they offer great customer-service and stand behind their products with a money-back guarantee) if you're looking for a light-weight white gas stove. It's nice because it's simple, fits into a MSR cook set, and when you shake it, it cleans the soot out of the jet. The heat adjustability leaves something to be desired, but if you don't mind constant stirring simple is good.

For family camping I recommend the old white gas Coleman 2 Burner Gas Camp Stove 425F499 instead of the newer white gas **Coleman stoves** and have a look at the **Coleman camping grill.** My mom and dad got one of the older versions of this about 30 years ago and I still use it to this day. I think it has only needed a replacement generator and pump over the years. It has a very adjustable flame and the 3-sided wind screen helps keep even small flames burning. The thing is built like a tank, so it's a little heavy but if you don't have to carry it on your back that won't matter.

The liquid multi-fuel types are nice if you're hiking through areas where you're not sure what fuel will be available, like outside the United States. Some multi-fuel hiking stoves and **backpacking stoves** can burn almost anything from white gas, kerosene, unleaded gasoline, and alcohol, to diesel and more.

The **Primus Himalaya Multi Fuel stove** is just what the doctor ordered if you're looking for a stove you can take anywhere and run on almost anything. It even won Backpacker Magazine Editors' Choice Award back in 1998. It's like a hybrid because it can run off either a canister or liquid fuel. Truly cool especially if you do four-season camping or travel through distant lands. It's not the lightest, but at just over one pound, it's hard to complain.

Canister stoves

Canister camping stoves are nice because they're pretty much plug-and-play. There's no pumping or priming. Turn the knob, light, and you have immediate maximum heat. You can also adjust the heat to a lower level than liquid fuel. Canister camping stoves usually burn clean on butane, propane or a mixture of the two.

Butane burns hot but doesn't perform well in temperatures below freezing. Mixing butane with propane (isobutene) can help down to about 20º F (-7º C) or so then performance starts to fall off again. Propane is good down to about 0º F (-18º C). If you're doing a lot of hiking, carrying and disposing of the one-use canisters can be a consideration, as can challenges in locating replacement canisters in certain areas, especially outside North America and Australia. Canister camping stoves are the easiest and cleanest to use.

The **Jetboil Personal Cooking System** won Outside Magazine's Gear of the Year award and Backpacker Magazine Editor's Choice Award in 2004. The cooking system is a really neat canister camping stove with an integrated one liter insulated cooking cup. It's compact, 80%+ efficient (compared to the typical 30-40%), and with a piezo electric igniter it's about as easy to use as you can get. A neoprene sleeve lets you grip the cup and serves as insulation.

Once you've narrowed down your choice of fuel, take a look at how much heat a stove generates by comparing how quick they boil water under 'ideal conditions.' A few minutes can make a difference when you're hungry. Next compare how long the stove can burn while at wide-open. Figuring out how long you'll run your camping stove, how many times a day, and for how many days will give you a rough approximation of how much fuel you'll need to bring. It's always a good idea to have extra fuel especially in cooler weather or at altitude.

Quick tips: Camping stoves should have a wind screen to protect the flame from blowing out and to help hold the heat in. Wind and altitude can slow heating down quite a bit. Heat exchangers, pot lids, and reflectors can also help to keep the temperature up and save fuel (a good example is the Jetboil above).

More Stove Tips

Maintain camping stoves at the same time you do other hiking gear so it doesn't get over-looked or let you down on your next trip. Knowing how to fix your camping stoves and having what you might need before you leave means you won't have to learn in the middle of no-where. Besides, I'm not sure if the FedEx guy delivers emergency parts to the middle of no-where. ;-)

Above all stay safe, don't use camping stoves inside your tent. Carbon monoxide can kill so take it outside. We want to see you again. :-)

Referenced URLs

> Because you cannot click on the links in the printed version of this document, the links are included so you may go to the sites. The following web sites were referenced in this document.
> You may also go to www.Troop122BigBears.org/Training to download an electronic version of this document.

For any specific brands mentioned, a good place to start is CampMor.com. They have a store locally in Paramus if you'd like to visit rather than buy it online although you can easily purchase on line.

camping stove maintenance
http://www.hiking-gear-and-equipment-used-for-camping.com/camping-stove-maintenance.html

Coleman camping grill
http://www.hiking-gear-and-equipment-used-for-camping.com/coleman-camping-grill.html

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