

TACTICAL FIRE



GUIDE



17 Ways to Start a Survival Fire

...Under ANY Conditions

TACTICAL FIRE GUIDE

The Patriot Caller



Tactical Fires

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THE QUICK START TACTICAL FIRE:

With nothing but trash and a butane lighter, you can start a fire in a downpour

We all *think* we know what fire is... but when push comes to shove, when it's cold and raining out, can we really get a fire lit?

Fire building is one of the most indispensable survival skills. In almost any collapse scenario (short or long-term), the failure to possess this critical skill will severely decrease your options. A simple campfire allows you to cook meals, sterilize water, signal for help, and of course keep warm in dangerous weather conditions. Without fire, your ability to be self-sufficient is at the very least, threatened. When you think about it, fire is energy. Mankind's ability to master fire, among other elements, has made it possible to build societies and advance technology. We've reached a point now, however, where many of us have lost touch with the fundamentals that make life on this planet possible. One of those is fire.



THE FUNDAMENTALS: Mastering Tactical Fire Building Requires An Understanding of the “Fire Formula”

**The Fire Formula:
Heat + Fuel +
Oxygen = FIRE**

If you've only used a cigarette lighter to light fires for your entire life, it may appear that fire just springs forth out of thin air. It doesn't.

Of course, you and I know that fire doesn't work like that, except for the mysterious phenomenon that has claimed so many Spinal Tap drummers, spontaneous combustion, fire follows a few very simple laws of nature. Still, most people believe that a “spark” is required to create fire. In fact, this is false. The only three elements needed to create fire are:

FUEL - This is the material that we will be burning. Tinder, logs, oil, and wicks are all different forms of fuel.

OXYGEN - Fire requires oxygen. In fact, fire is defined as the “rapid oxidation” of material through the process of combustion.

HEAT - This pertains to what we established above, flames and/or sparks are not necessary to create fire, only heat is. This is an important distinction, one that will help us expand our thinking when it comes to building tactical fires.



TINDER:

- Dried grass
- Dead leaves
- Dryer lint
- Newspaper
- Cotton
- Gunpowder
- Wood shavings
- Sawdust
- Straw
- Birch bark

KINDLING:

- Twigs
- Pine bark
- Cardboard
- Scrap lumber
- Split wood
- Survey stakes
- Crayons
- Fireplace starters

FUEL:

- Seasoned firewood
- Charcoal
- Lumber
- Tree stumps
- Fallen logs
- Animal dung
- Engineered fire logs
- Bundles of hay

Since we live in an oxygen rich atmosphere, we don't have to work much about furnishing the oxygen. The primary challenge for us is to strike a balance between heat and fuel.

This is why it's nearly impossible to light an oak log on fire by holding a cigarette lighter under it. The log is far too dense and requires more heat than the lighter can deliver. You're trying to heat a skyscraper with an electric blanket.

In order to create the proper balance, you need to increase the volume of heat you are using or find a more combustible material to use as fuel, one that allows more oxygen into the equation. If you don't have a flamethrower, then you'll probably have to go with the latter option.

STEP ONE: The not-so technical term for this easily combustible fuel is "tinder." Tinder is typically lighter and less dense than other fuels, meaning it doesn't burn very long (think: paper or lint). Short lived as it may be, tinder is the critical first step in the process of fire building.

STEP TWO: Using the flames created by the tinder, the next step is to pivot to an incrementally larger form of fuel, kindling. The size and density of your kindling can vary somewhat to accelerate the creation of heat. For instance, you may use loose bark and twigs as kindling. Once you've created enough heat with your kindling, it's time to make the next step.

STEP THREE: At last, you've created enough heat with your tinder and kindling to move on to your actual fuel. This is when you can add that oak log to your fire. Even at this stage, however, it's a good idea to stagger the size and density of your fuel until you have enough heat (your bed of coals) burn just about anything.

TINDER, KINDLING, FUEL

As elementary as this formula seems, it's important to memorize it for use in tactical situations. You're not always going to have dry grass, twigs, and firewood at your disposal. As long as you think in terms of Tinder, Kindling, and Fuel, you can substitute other flammable materials.



17 Failsafe Fire Starting Methods

Keeping in mind our “Fire Formula” you’ve probably already thought of a few unconventional ways to build a fire that you hadn’t previously considered.

Fire is a chain reaction; our job is simply to get the reaction going, and then to provide fuel and oxygen to keep the reaction going.

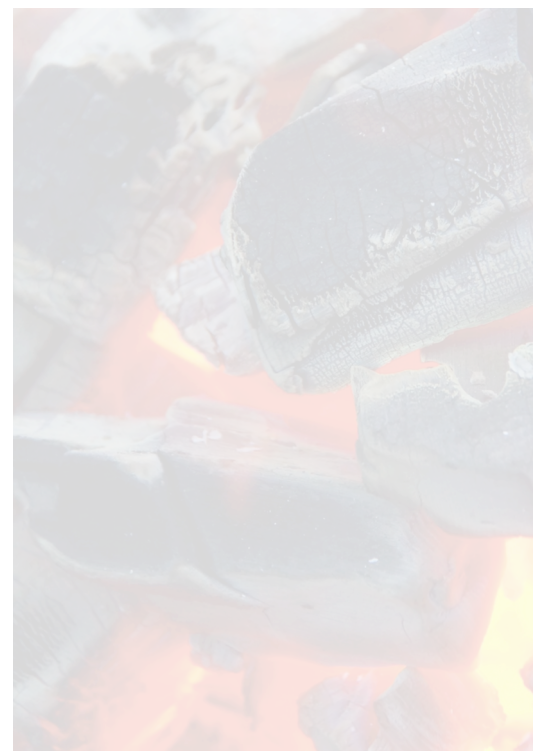
The following is a list of 17 tactical fire-starting methods, some you already know, others you’ve never imagined. All of the operate on the same principles of igniting fuel with heat.

1. BIC LIGHTER

You can never have too many cigarette lighters in your survival cache. I don’t care if you have the fanciest fire tool known to man; butane lighters are the ultimate backup plan. The downside to depending on butane is the gas’ low flashpoint, which means that these lighters don’t always work well in cold weather.

(continued)

“Fire is a chain reaction. Our job is simply to get the reaction going, and then to provide fuel and oxygen to keep the reaction going.”



One solution to this problem is to keep the lighter in a pocket on your person in cold conditions. This way, the lighter and gas inside will have a warmer starting point.

2. MAGNESIUM FIRE STARTER

The most common and inexpensive form of this tool is comprised of a large block of magnesium with a flint rod affixed (see nearby photo).



Using the saw-toothed metal tool, you scrape magnesium shavings into a pile. Then you scrape the tool quickly against the flint rod, sending a spark into the pile. Once the magnesium gets hot enough, POOF, you have a very, very hot fire to ignite your tinder with.

3. MAGNIFYING GLASS METHOD

You may not think of a magnifying glass as a survival kit must-have, but a lens can be extremely useful. Not only will it help you read fine print, it can help you see your way to a roaring, warm fire in just a few minutes. Simply use the lens to focus

As children, most of us used a magnifying glass to burn our names into wood, or to wreak havoc on ant populations. Little did we know, we were cultivating a fundamental survival skill.

sunlight onto your tinder, just as if you were burning your name into block of wood.

Experiment to find the focal length of your lens, and then position it to focus the light into the smallest circle possible.

The downsides to this method are that it requires daylight to work. Dry, easy-to-light tinder is also very helpful.

4. STEEL WOOL AND 9V BATTERY

If you like parlor tricks, this fire starting method is for you. All you need for this method is a new 4-ought (0000) steel wool pad and a charged 9V battery. In theory, you could use a smaller battery, but the more power, the better.

It's crucial that your steel wool is not rusted, as oxidized steel will not burn. Remember, fire is the process of rapid oxidation.

Tear off a piece of steel wool, roughly 2"x6" and hold it over both terminals of the battery, creating a short circuit. The resistance of the wool will spark and ignite the material quickly.



4. CHEWING GUM WRAPPER

If you carry Wrigley's around in your pack, you already have half of the required materials for this method. The other half is a battery (a AA will work).

Here's an odd piece of trivia for you: This method was developed by prisoners in order to light cigarettes. As you know, prisoners can be quite resourceful.

To get your gum wrapper to ignite, you're going to need to turn it into a makeshift fuse, with an intentional weak point that's designed to burn.

Do this by cutting your gum wrapper in half lengthwise. Then, in the center of your long strip, cut off another segment, leaving a narrow strip roughly 1/8 of an inch wide. This is the weak point that will catch fire.

Last, connect the strip of wrapper to both terminals of your battery and get ready to use the resulting flame to light your tinder.



5. THE FLASHLIGHT METHOD

Nearly all flashlights use a parabolic mirror to magnify the light emitted by their bulbs. In fact, the bigger the bulb, the bigger the mirror, usually, and we want the biggest mirror we can get.

Take apart your flashlight and remove the bulb. The bulb, it just so happens, is designed to sit at the focal point of the mirror. Simply insert your tinder through the opening for the bulb, and aim the mirror up at the sun. The mirror will focus the rays onto the tinder, then wham-o, you have the beginnings of a fire.

Although I typically recommend LED flashlights because of their efficiency, their small reflectors don't work very well for this method.

6. CAR HEADLIGHT

A car headlight uses the same principle as your flashlight, only it typically uses an even larger mirror. If you can do without a headlight for a few minutes, you can use the same fire starting method with the mirror in your headlight housing.

If the lens of your headlight is cloudy, then do your best to remove it without damaging the unit. Remove the bulb and place the tinder in through the bulb opening, aim it toward the sun, and be ready to spring into action as the sun ignites the tinder.

7. BEER CAN REFLECTOR

Here's yet another method for starting a fire with a parabolic reflector. The concave bottom of almost any aluminum can (it doesn't have to be beer) can be used to start a fire with one important modification: It must be polished.

You're probably thinking, *gee, jewelry polisher isn't on my list of bug-out supplies*. Don't worry; toothpaste is actually a great abrasive polisher. Simply use a piece of cloth or your hand to polish the bottom of the can until it's shiny. This may take a while, up to 30 minutes.

Once the bottom of your can is polished to a shine, you can use it much the same as the flashlight or car headlight method. Find the focal point, usually a few inches away from the bottom or the bottom of the can, and hold your tinder as steady as possible. TIP: black or dark colored tinder retains heat much faster and will make this easier.



8. WATER BOTTLE

Yes, it seems ridiculous, but even a water bottle, filled with water, can be used to start a fire in an emergency.

The best type of bottle for this method is a completely smooth, completely clear, refillable bottle such as a Nalgene. Disposable bottles can work also, but typically these bottles are covered with ridges and designs to give the thin plastic more strength. Remove any labels first, of course.



Hold the bottle up on its side, and use it as a lens to focus sunlight on your tinder. Paper works well in this situation, especially black or dark colored paper. The water bottle will not be as effective as a magnifying glass, but you'll see your tinder start to smoke in just a few seconds.

9. JUMPER CABLES

As we've already explored, consumer grade alkaline batteries can be used to start fire

quickly. Car batteries, as you can imagine, start a fire even faster. Handling car batteries can be a bit dangerous, so it's important that you approach this method carefully.

Even if your car battery doesn't have enough juice to start your engine, it will produce powerful sparks. Prepare your fire site with plenty of your most easy-to-light tinder and connect one end of your jumper cables to both battery terminals.

Keeping your car as far away from your fire as the cables will reach, tap the ends of the jumper cables together above your tinder, raining sparks onto the tinder.

10. EYEGLASSES

If you wear glasses, you may have already thought of using them to focus sunlight, instead of a clunky magnifying glass. Once again, objects that you carry every single day are the best tools to master for survival purposes, because you may not be able to get to your stash of high-dollar fire starters when you really need them.

The eyeglass method works just like the magnifying glass method, though it takes a little experimentation to find the idea focal point. Prepare your tinder, then use your glasses to focus sunlight onto the tinder.

TIP: If you have any paper with large sections of black ink on it, these heat up faster than the light colored sections.

11. FERROCERIUM FIRE STICKS

Ferrocium is a manmade material used in fire tools as a replacement for flint. Like flint, scraping Ferrocium with steel creates sparks. The difference is that these ferro sparks are much hotter (3,000°F) than flint sparks.

Simply gather up your tinder, and scrape the striker tool across the ferrocium stick, sending the super hot sparks into your tinder. There are a handful of ferrocium tools on the market, almost all of them are reliable and intuitive. I prefer tools where the striker bar is tethered to the ferro rod, so you can't lose it.



12. FLINT AND STRIKER

Keeping a good, old-fashioned flint stone in your pack is never a bad idea. Using a steel knife, or preferably a steel striker, designed to be smashed against a rock, you can start a fire in a pinch.

The key to starting a fire with this method is preparation. If you have the right tinder prepared, you can escalate a small flint spark into a roaring fire. But it does require patience.

You simply strike the rock with your steel tool or knife, knocking the sparks into your tinder (cotton balls work well). From there, it's a good idea to transfer the spark into a bundle of grass and twigs, often called a "bird's nest" and blow on the smoldering tinder until it fully ignites.

13. SHOESTRING BOW DRILL

The bow drill is one of the most advanced and difficult fire starting methods in this

guide, mostly because it requires constructing a bow-like tool using a curved stick and your shoestring (paracord works also). The string of this bow should be fairly loose, unlike a typical bow.

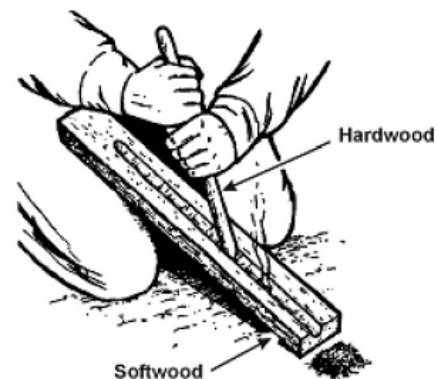
In addition to the bow, you'll need a wooden spindle, a fireboard (pine, cedar, and poplar work well), a rock, and tinder.

By wrapping the bowstring around the spindle, you'll turn it back and forth quickly in the fireboard, creating friction and eventually embers (see illustration).

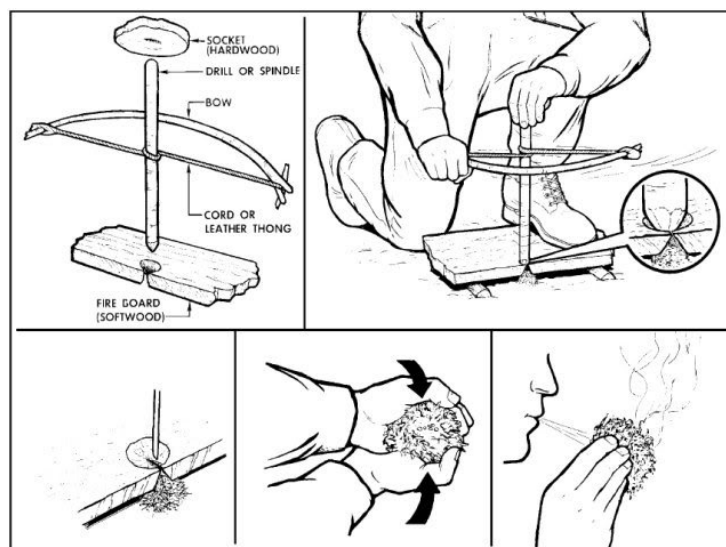
While this technique works well, it takes a lot of patience and practice to perfect.

14. FIRE PLOUGH METHOD

Like the bow drill, the fire plough is an age-old technique that requires a lot of patience and stamina.



Also like the bowstring, the goal is to produce glowing embers through friction. Instead of turning the wooden spindle inside a socket in the fireboard, you'll be scraping it through a channel in a soft wood fireboard.



All fire tools are NOT created equal. Some of them require lighter fluid to function properly. These are handy on camping trips, but should be avoided for your bug-out bag.



15. FLINT MATCHES

A flint match fire starter (pictured above) is a very handy addition to your bug-out bag, as long as it's filled with lighter fluid.

Similar to a Zippo lighter, this device uses a flint striker to ignite a wick that's doused in lighter fluid.

This tool is lit by striking a steel "match" against a flint surface on the side of the housing. Then you've got instant fire. It's really as simple as that, assuming the tool has

been filled with lighter fluid. That's the primary weak point with these tools, just like with a Zippo, if the lighter fluid has dried up, it's useless.

16. STRIKE ANYWHERE MATCHES

"Strike anywhere" wood matches are one of the most effective and readily available fire starters out there. I prefer them over butane lighters because they act as their own tinder.

These old school matches are increasingly hard to find, but they're out there. You can order them in bulk through Amazon. These "unsafe" matches can be struck on nearly anything abrasive, bricks, concrete, belt buckles, etc. They burn for several seconds, giving you plenty of time to ignite other tinder. The key with any type of matches is to keep them dry. Invest in a

waterproof match canister.

17. SAFETY MATCHES

The most common type of matches you'll find on store shelves are "safety matches." Like most products redesigned to maximize safety, the result is an inferior product.

Thus, these are not ideal in a survival circumstance, but they are far better than nothing. The feature that makes these matches "safe" is that the phosphorous is located on the strike pad, not on the match itself. This eliminates the chance that the matches will ignite unexpectedly. In other words, you must preserve the striker pad and carry it with you to light these matches. TIP: tear off the striker and keep it in a waterproof canister.



THE QUICK START TACTICAL FIRE

I'm going to describe a scene that you've probably witnessed firsthand, multiple times. You're watching an otherwise intelligent human being, usually male, trying to start a campfire and failing miserably, even though they are armed with matches and a can of lighter fluid.

They don't understand why it's not working. They've stacked the logs up like they've seen in the movies, soaked it in 5 ounces of magic fire juice, and lit a match... and still the logs refuse to catch.

For most of us, it's hard to watch. Not only is it pathetic to see a grown adult failing to start a campfire with all of the modern advantages except for gas logs; it's pathetic to see how removed mainstream Americans are from the basic survival skills. It's disheartening.

Don't be disheartening, be a master of building quick, hot-burning, tactical fires in any situation.

Tools of the Trade

Let's start with the first things first; you can have fire without the spark. You need a

portable, reliable fire source.

You've seen all the tungsten carbide strikers, flint rods, and magnesium fire starters that retail from \$15 to \$30 online. And sure, all of these high tech solutions are impressive, maybe not \$30 impressive, but impressive nonetheless.



However, we're going to recommend a fire source that is much more cost effective and equally reliable: a cigarette lighter.

The main advantage these expensive fire tools hold over a common cigarette lighter is that they work wet or dry. While that is handy on very rare occasions, like when you're trying to build a fire in a monsoon, the truth is that these tools are more labor intensive to use the rest of the time.

With the old, tried and true cigarette lighter, there's no need to read an instruction manual or rub a bunch of carbide sticks

together. Instead, all you need to do is “flick your Bic.”



Another nice thing about this option is that you don't have to worry about misplacing a lighter. If you lose a cheap lighter, simply replace it. Lighters are available in bulk at almost every convenience store in the world.

We recommend you purchase a package of 6 or more cigarette lighters and place lighters strategically throughout your home. This includes placing lighters in your kitchen drawer, your car's glove compartment, your bedroom, and, last but not least, a pair of lighters in your go-bag.

Commercial Fire Starters Are Not Cheating

While it may not suit every prepper's sense of do-it-yourself innovation, a few of the commercially available fire starters are extremely convenient for creating a warm, potentially life-saving fire in minutes.

Sure, it's nice to know how to start a fire by rubbing sticks together, but from a tactical standpoint... that's an incredible waste of time.

That's why your preparations should include a few quick-light products. You don't need to go crazy with these things, but they could really help you save time and stay warm in a short-term crisis.

Full-size Duraflame logs (or any of the off-brand fire logs) light quickly and burn for hours. Having a stack of those in your shed during a snowbound power outage could definitely ease the pain. For your bug-out bag, there are a number of fire starter sticks and bricks that could come in very handy in a pinch.

DIY Hack: Cotton balls soaked in Vaseline burn light quickly and burn for an extended period of time. They are lightweight and take up very little space when stored in a zip-lock bag inside your bug out bag.



Again, these products won't make you look like MacGyver. But when you need a fire quick, who really cares? Sometimes being smart in a tactical sense is all about being resourceful. Having

Eventually, however, you may be forced to start a fire without the benefits of starter logs or other commercially available tools.

A Quick-start Fire Building Technique

Whether you're in a SHTF scenario or on a weekend camping trip, chances are that you'll be able to get your hands on some cardboard; beer and soft drink boxes are perfect.

We picked up this fire-building technique during an outing with an Air Force Ranger. It had been raining steadily for two days and, though it was showing signs of clearing up, light rain continued to fall. It was time to build a fire, but it seemed unlikely to most of the group -- not to the Ranger.

He directed us to find small twigs and kindling while he walked over to a trashcan to locate a somewhat dry piece of cardboard. He returned with an emptied out case of Natural Light and began tearing the ends into long strips, a fringe. When he had finished on one side, he flipped the box around and did the same on the other side.

What he ended up with looked like a long tube with confetti spilling out at both ends. He then folded it in the center and held the two ends together as he lit the cardboard fringe, making a cardboard torch.



Next, he placed the torch in the center of the fire pit and began to create a teepee over the cardboard using the thinnest kindling we'd gathered. The teepee helped to protect the flames from the rain as the flames dried the kindling and eventually, we had the beginnings of a fire... in the middle of a downpour.

Cardboard Torch + Kindling (small to medium) = Quick Start Tactical Fire

We've tested this method many times and haven't found a way to mess it up yet. What's more, we've been impressed with how easy it has been to find cardboard when you need it. Recycle bins are an excellent resource.

Most people immediately think to use newspaper to build a fire, because it catches easily. But it also burns up quickly. When you're trying to light a fire in damp conditions, you can burn through the entire Sunday paper before you've managed to create enough heat for a fire.

Cardboard, on the other hand, burns much slower and smolders, giving you a much longer lasting heat source. A well-constructed cardboard torch burns very slowly, creating a coal-like effect.

