**intro: Fireballs you can Hold in Your Hands!**

Ooh, fire. One of the biggest fascinations of man since the beginning of time. Doesn't it seem so cool to be able to hold it in your hands? You've probably seen the video of this stunt before. If not, check it out here and be amazed.

Many of you have reported being burned, scarred, hurt etc. I've made these, and tested them with different fluids. I will show you in detail how to make these, explain how they work, and share my notes on the best kind of flammable fluid to use.

This trick is really fun to perform, and a great way to reuse an old t-shirt. It is still fire, though, so be careful! If you want to know the science behind it, check out step two.

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**step 1: Supplies**

Most of these things you should already have laying around your house. If not, a quick trip to a craft store will get you the things you need.

- 100% cotton t-shirt or fabric
- 100% cotton thread - make sure it's thick enough to hold the ball of cotton together, but not so thick that it won't fit through your needle
- Needle with eye big enough to fit the thread you are using
- Scissors
- Lighter
- Some kind of flammable liquid (details on this in step 8)

Not much, huh? Make sure everything is all cotton. See the next step for reasons why. Skip to step 3 to get straight to work.

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**Image Notes**

1. Needle
2. Scissors
3. Thread - any color (100% cotton)
4. Old T-shirt (100% cotton)
step 2: Why Cotton? Won't it Burn Me?

Why use Cotton?
You need to use all cotton because it doesn't melt. If you have polyester, your fireball will melt in your hand, which will hurt very badly. Cotton can burn, but it doesn't melt.

How does this work?
If you've seen the video, you can see that there is a blue flame at the bottom that turns orange as it goes up. The blue flame at the bottom is cooler than the orange flame at the top. The temperature is low enough that you can hold it without it burning your hands right away.

If you hold it in one spot, however, it WILL burn you. That is something the video does not explain. It is still fire, after all. The thing is, the flame where you are holding it is just cool enough to hold it comfortably.

Shouldn't the Cotton Burn?
It would if not soaked with fuel. Kind of ironic, really. When you light these, it is not burning the fuel directly but the gasses from it. The heat makes more fuel turn to gas, which gets burned. It's a cycle that repeats itself as long as there is fuel to vaporize.

step 3: Clippin' Cotton

Cut a piece of cotton about 3.5 x 4 inches, (9 x 11 cm). It doesn't have to be perfect.

Roll it into a ball. No special technique here, just try to make as few "loose ends" as possible. I have found, however, that a super-tight ball does not soak up fluid as well, and does not stay lit as long. Don't make the ball too tight, but not so loose that it's falling apart.
**step 4: Mr. Needle, Meet Mrs. Thread**
Take about 2ft of your thread and thread it through the needle. Tie a few knots in the end, so it won't pull through the cotton.

**Image Notes**
1. Aww, how cute. They like each other.

**step 5: Stuck With A Needle**
Find the "end" of the cotton ball (the end of the fabric) and push the needle in to it. Push it all the way through. It can be very hard to if your cotton ball is dense, so needle nose pliers can be a big help.

Pull the thread all the way through, until you get to the knot. Trim the extra thread before the knot.
step 6: Hardcore (W)Rap
Take the thread and start winding it around your ball. Not too tight, but don't make it loose, either. Try to wrap up all the loose pieces hanging out. Keep the needle on the thread, and when you have a few inches left, stop.

Then stick the needle through the ball again. Don't take it off the thread yet, though.

step 7: Time to get Knotty (Naughty?)
Loop the needle and thread under an existing piece of thread, and tie a knot so it doesn't come undone.

You then have the finished fireball! Usually, they're about 1-1.5 inches in diameter. I haven't tried any bigger or smaller.
step 8: Light 'er Up

Whoops, not yet. There are different liquids that work better than others. I've only tried two kinds of rubbing alcohol, but I can guess on others fluids based on people's comments.

Rubbing Alcohol - 70%
This is a good fuel for starters, but any lower percent won't work much at all. 70% rubbing alcohol burns with a decent flame, and not too hot either. It's great to get up your courage, and moderately impressive. You get an ok burn time with this, about 1 1/2 minutes.

Isopropyl Alcohol - 91%
This is only 9% water, meaning it burns much hotter than 70%. The result is a much bigger flame, which is obviously much more impressive-looking. This is a great option, burning at a heat just low enough to hold in one spot for a couple seconds. Recommended for those who are a bit more daring. Burns for about 3 mins.

Zippo Lighter Fluid
DO NOT use this. It burns way too quickly and hot. This stuff is meant to produce a hot flame, and it does. You will be burned if you use this, with not much bigger flame than isopropyl alcohol.

Lighter Fluid
I would say only experts should use this. It's very hot, but has a huge flame that is just plain awesome. I've heard some kinds don't work, like grill lighter fluid. Get the charcoal kind.

Axe
Yes, the body spray. It's very impractical to use this. You'd have to spray a ton into a jar just to get enough to soak your fireball in. I'm not sure how well this would burn, however, if at all. I've never heard reports of this being used, so I really can't say. Try it and tell me about it.

I did a comparison between 70% and 91%, and the results are quite dramatic. Check the pictures.

Image Notes
1. 70% rubbing alcohol. Wimpy, wimpy, wimpy.

Image Notes
1. 91% isopropyl alcohol. Hefty, hefty, hefty!
step 9: Burn, Baby, Burn

Hopefully not your hand. Take your fireball, and soak it in whichever fluid you chose. If you can't decide, I recommend 70% for beginners and 91% for those more experienced.

Once you think your fireball has enough liquid in it, squeeze it just a bit to make sure there isn't any fluid that will get on your hands and light them up.

Dry your hands off, then light it.

Neat, huh? Here are a couple shots of the 91% in my hand. It's really cool to look at. :P Please be careful and have fun! This is still fire, after all. It's quite easy to drop this and catch your sock on fire. (And I would know.)

If you just can't take the heat, check the next step for tips on not getting hurt.

Image Notes
1. You can see here where a little extra alcohol got on my hands and is on fire. This will stay even if the fireball is not there, which is why you want to make sure there's no extra.

step 10: Too Hot? Try These Tips

If it's a bit too hot for you, try some of these ideas.

- Get your hands wet. The extra water takes away some of the heat energy, so it's not as hot.
- Add just a little water to the rubbing alcohol.
- Most of the pain is mental. Convince yourself that it's not actually as hot as it looks.
- Keep it moving! If it stays in one spot, it will burn you.
- Use lower percent rubbing alcohol (not under 70%, though)
- If you really need to, you can use leather gloves, but that kind of takes away the coolness factor.

It'll also help if your hands are naturally callused. That is, the skin is harder and "tougher" that the average person's. It'll probably hurt more if you're a lady, because your hands are probably softer.

Be safe and have fun! Please tell me your experiences with other flammable fluids so I may add the to the list. I'll try to take some night shots sometime soon.

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