

Club & Torch Juggling:



-an instructional guide-

By: Josh Schoolcraft



Introduction

These instructions will get you started in two advanced juggling practices: club juggling and torch juggling (a technical extension of club juggling).

Anyone can learn to juggle, and anyone can learn to juggle well. Time spent practicing, not initial skill, is what makes the difference. This guide assumes that you have some basic experience in juggling - mainly, a mastery of three-ball juggling.

You should use these instructions in the order that they are written. Until you have mastered all previous sections, moving forward into another section may only prove to be frustratingly free of progress, and in the case of fire juggling – dangerous.

Using this guide will help you to understand the basic concepts and techniques of club and torch juggling. There are no tricks or fancy showmanship (aside from the tossing burning implements) covered.

Safety is always a concern, but in this set of directions it applies most importantly to the fire juggling section. Read all safety guidelines carefully, and then read the entire set of directions start to finish prior to making any juggling attempts.



Equipment

Part I - Club juggling:

- **Three identical juggling clubs.** Note that these are nothing at all like bowling pins. They are relatively lightweight and designed to be thrown with precision. Dubé Airflites are inexpensive and very durable - making them excellent starter clubs.

Part II - Torch juggling:

- **Three identical juggling torches.** Torches are somewhat heavier than clubs, and weighted slightly differently. Be sure to obtain a set that you are comfortable throwing and catching. Infinite Illusions makes a great set. No matter the brand, the Kevlar wicking should be able to hold a fair amount of fuel so burn times will be acceptable to perform with.
- **Coleman Whitegas.** This fuel, easily found at Walmart (as camp stove fuel) is great for a number of reasons - It has very little odor, doesn't smoke all that much, and leaves much less residue than a lot of other alternatives. It also has a low flash point, making it easy to light, and burns at a lower temperature than many other fuels.
- **Nalgene bottle.** It needs to be a widemouthed, 1-liter bottle. Use this to store fuel and dip torch wicks in. You cannot use just any plastic drink bottle for this, since the fuel will eat away at most plastics over time. Nalgene bottles are manufactured from lexan, a high-strength composite material that is resistant to chemical deterioration. Also, be sure to CLEARLY LABEL it as a fuel bottle.
- **Cigarette lighter.** Any kind will do.
- **Heavy blanket.** Preferably fire-retardant, but heavy wool is acceptable. This is to be used to smother flames in an emergency.
- **Eye protection / hat.** Highly recommended while learning.
- **Trusted friend.** Someone willing to spot you while you play with fire.



Safety

Part I - Club juggling:

- Be sure you have at least 3 feet clear on all sides of you, and don't juggle near breakable objects.

Part II - Torch juggling:

There are inherent risks in playing with fire. In order to minimize these risks, protect yourself and protect others, follow these guidelines:

- Read all warnings written on the fuel container.
- Label all containers / flammable materials.
- Wear clothes that won't instantly catch fire - some mix of polyester is good.
- Cover hair.
- Be aware of your surroundings, and be particularly mindful of bystanders.
- Always have someone watching - it is possible to have your clothes catch fire on your back - and you will need someone else's eyes to watch for it.
- Keep fuel away from flame.
- Always allow torches to cool off for a few minutes before re-fueling.
- Be mindful of restrictions / fire permit requirements in your area.
- Always have one or two fire extinguishing methods on hand and ready.



Part I:

Club Juggling

Club Juggling



Figure 1-1: Proper grip.



Figure 1-2: Single rotation toss.

One-club throws

Step 1: Grasp a single club in either hand, near the balance point, as shown in figure 1-1.

Step 2: Toss the club with a wrist flick so that the handle rotates down, and the fat end rotates up. The handle should land back in the throwing hand after a single rotation (figure 1-2).

Step 3: Practice step 2 with both hands, and then practice throwing from one hand to the other.

Club Juggling



Figure 1-3: 2-club start.

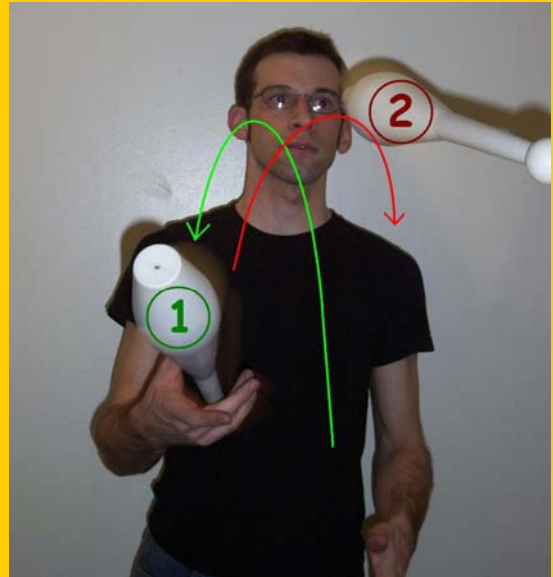


Figure 1-4: 2-club toss.

Two-club throws

Step 4: Grasp two clubs, one in each hand, as shown in Figure 1-3.

Step 5: As figure 1-4 depicts, toss club 1 first, and then toss club 2. Immediately after tossing club 2, catch club 1, and then catch club 2. The two clubs should have exchanged hands.

Throws should be made inside (toward the center of the body) of the catches. Both throws should also arc at about the same height.

Step 6: Practice alternating which hand throws a club first.

Club Juggling



Figure 1-5: 3-club grip, dominant hand.



Figure 1-6: Complete 3-club starting grip.

Three-club starts

Step 7: Grasp two clubs in your dominant hand, as shown in figure 1-5.

Step 8: Practice tossing the inner club up and to the other hand, in the same manner as step 1. This is important - it will be the first throw made when doing a full 3-club juggling pattern, and needs to be executed as smoothly as possible.

Step 9: Prepare for full 3-club juggling by gripping all three clubs as shown in figure 1-6.

Club Juggling



Figure 1-7: 3-club throw pattern.



Figure 1-8: 3-club pattern, side view.

Three-club juggling

Step 10: Start the pattern with the toss specified in step 8.

Step 11: Three club juggling is simply the constant, precise repetition of step 5, alternating hands with every throw-catch combination. As shown in figure 1-7, the clubs will follow a pattern which looks like an infinity symbol. Figure 1-8 shows the approximate distance from the body of the throws.

Step 12: Practice step 11 constantly. Expect it to take a month or two of steady work to master the basic 3-club pattern.



Part II:

Torch Juggling

Torch Juggling



Figure 2-1: Choose a clear, secluded area.



Figure 2-2: Dipping wick in fuel.

Preparation

Step 1: To practice, find a large, secluded and open area with a nonflammable surface. Tar, dirt and green grass work well. Stay away from tall grass, dried leaves, dried grass and (if you don't have a fire permit) public places.

Step 2: Practice 3-torch juggling with dry, unlit torches until comfortable with light levels and wind conditions. Note that most torches are heavier and toss differently than clubs.

Step 3: Dip each wick in fuel from the Nalgene bottle as shown in figure 2-2. Swirl inside for about 10 seconds, and then remove. Keep the saturated wicks hanging upside-down to prevent fuel from dripping onto the handles.

Torch Juggling



Figure 2-3: Igniting the torches.



Figure 2-4: Swinging torches to remove excess fuel.

Ignition

Step 4: Clear the throwing area. Make sure the fuel bottle is **at least 15 feet** away and closed tightly, and any other flammable objects are far enough away as well.



Step 5: Hold torches horizontal, and cluster the wicks. Ignite torches with lighter from the bottom of the cluster. Once the torches are lit, hold them sideways or upright, as shown in figure 2-3. Never hold them upside-down for a long period of time - the flame will come up the handle.

Step 6: Swing torches around a bit to remove excess fuel. This can be done creatively, as figure 2-4 depicts. Club swinging was actually an Olympic sport until the mid-1940s.

Torch Juggling



Figure 2-5: Practice throws.



Figure 2-6: Three-torch juggling.

Juggling

Step 7: Begin juggling in a three-club pattern. Don't bother catching the torches - just practice making good throws and letting the torches drop afterwards. Pay particular attention to the handles, since they will be much harder to see once the wicks are lit.

Step 8: Once you become fairly confident in your throwing ability, begin to attempt catches. If a throw gets out of control or if it looks as though you might catch the flaming end, simply pull your hands back and take a step backwards, letting the torches drop as in step 7.

Step 9: Work on steps 7 and 8 until a continuous pattern forms as shown in figure 2-7, or until the flames on the torches get weak (burn times ~ 3-5 minutes).

Torch Juggling



Figure 2-7: Continuous 3-torch juggling.



Figure 2-8: Torch storage.

Finishing up

Step 10: To extinguish torch flames, either blow on each individual wick with a sharp breath (like a candle) or swing each club about very rapidly.



Step 11: Wait at least five minutes between extinguishing torch flame and re-dipping wicks in fuel. This will give the torches time to cool down and stop smoldering. Be careful - hot torches could ignite the contents of the fuel bottle.

Step 12: Be sure to cover up cooled torches when done - old socks are good for this, as shown in figure 2-8.



Troubleshooting

<u>Problem</u>	<u>Cause</u>	<u>Remedy</u>
1) I can't juggle standing still! I always end up walking forwards, following my throws.	Throws are not accurate enough.	A - Juggling while facing a wall can help, but the best solution is to just practice. Throws become more accurate over time.
2) No matter how hard I try, I can't seem to make any progress toward juggling three clubs. I always drop right away, and it's getting frustrating.	Mental / physical fatigue.	A - When club juggling finally clicks, it will be smooth and virtually effortless. If you find yourself trying extremely hard and getting frustrated as a result - take a break.
3) When I light the torches, I chicken out! I can't catch those things - the flames are so bright I can't even see the handles!	Mental barrier	A - You actually <u>can</u> see the handles, but you have to get used to the flame on the other end being so bright. It can help to start juggling the lit torches at twilight instead of when it is pitch dark - the flames won't seem as bright as it gets darker.
4) My hands get blackened after juggling the fire a few times.	Carbon from flames gets on the handles.	A - The handles are going to pick up some amount of soot from the burning wicks no matter what. It isn't harmful, though it looks messy. Wearing thin, dark gloves can help keep it off your hands. Wipe off the torches after they cool down to limit carbon buildup.

Photography Credits

-Part I-

Amanda Vadnais is a fellow juggler and currently a student in paramedicine at SMCC.

Her snack of choice is double-fudge Keebler Elves.



-Part II-

Ben Tompkins is an ECE major at the University of Maine.

Watch for this rising star on the cover of Rolling Stone.