

FOUNDATIONS OF FLIGHT

SIT-FLY TO HEAD-DOWN CARTWHEEL



AXIS
Flight School



Brought to you by AXIS Flight School Instructors Niklas Daniel at Skydive Arizona in Eloy. Photos by Brienne Thompson.

Prerequisites

Proficiency in:

- ▶ Neutral sit-fly and head-down positions, particularly the head-down daffy (see "Foundations of Flight," March 2013 *Parachutist*)
- ▶ Sit-to-sit front flips and backflips (see "Foundations of Flight," January 2013 *Parachutist*)
- ▶ Belly-to-back barrel rolls to help with visuals

Execution

Start in a comfortable, neutral sit-fly position facing perpendicularly to the aircraft's line of flight. Pick a reference point on the horizon and use this as your heading.

Using the leg that will ultimately become the front leg when you're in the head-down daffy position, bring your foot in toward your centerline, exposing the outside of your calf to the relative wind. This means if your right leg is in front during the head-down daffy, you will rotate the cartwheel to the right (clockwise from your perspective). As you bring your foot in, collapse your

leading arm (the one inside the cartwheel) by moving your elbow back slightly (to behind your ribcage). This will keep your torso straight throughout the transition and allow you to fly over your shoulder.

Continue to focus on your reference point on the horizon throughout the move and keep your torso squared off with it. Your goal is to roll straight over your shoulder. Allow your chest to cave in slightly as your legs begin to rise. As you get closer to the head-down position, use your legs to stop (it should feel similar using your front leg as a rudder during a head-down turn) and remember to engage your core by squeezing your seat slightly. Your goal should be to end up on the crown of your head in a neutral head-down position.

Helpful Hint

At first, most jumpers will try to initiate rotation with their upper bodies and will favor their fronts or backs (something approximating a front flip or backflip). This can cause a 90-degree heading change at the finish. Prevent this by allowing your legs to do most of the work and by keeping an eye on your reference point.



To view the instructional video, use the QR code to the left or visit the Foundations of Flight page at parachutistonline.com.