



## 21 Belly-to-Back Barrel Roll

### Pre-requisites

The belly-to-back barrel roll is the first “transition” you will learn during your flight progression. It is important to note that no transitions should be performed without careful discussion with your instructor on the safety requirements and specific technical details required. Before you learn the belly-to-back barrel roll transition, you will need to be proficient in performing the eight points of motion in both the belly-flying and the back-flying orientations.

### Objectives

The primary objective is to be able to safely and successfully start in a neutral belly-flying body position in the center of the tunnel and perform a half-barrel roll transition from your belly to your back, ending in a neutral back-flying position, still in the center of the tunnel, and at the same altitude that you started.

### Preparation

You will start this maneuver by setting yourself up in the center of the tunnel on your belly in a neutral position, about 1-2 feet above the net. Your instructor will remind you to remain low to the net so that he or she will be able to provide any assistance you might need. You will want to make sure that the doorway is not in front of you or behind you at any time. Finally, once the instructor is ready for you to begin the maneuver, he or she will clearly show you a “thumbs up” signal. You should not perform any transition until you are sure that you have received this safety signal.

### Technique and Drills

*For a successful entrance, allowing for minimal assistance from your instructor, you should aim to do the following:*

- Begin in the center of the tunnel in your neutral belly-flying position
- Initiate the transition using the lower half of your body and allow your upper body to follow
- Pick a preferred direction to rotate as this will determine how you will initiate the maneuver
- For a barrel roll to the right, you will drop your right knee and cross that knee in front of your left leg to start the roll
- Allow your hips to follow as your legs begin to rotate, and then finally your upper body will follow last
- As you roll to your back aim to enter a neutral back-flying body position promptly
- During the rotation, your arms will remain neutral throughout
- Once you finish on your back, you may need to make small position adjustments to maintain heading and altitude and remain in the center of the tunnel
- Aim to keep eye contact with a reference point in front of you; this will assist in maintaining a heading and altitude
- You will need to focus on keeping your legs bent throughout this maneuver to ensure you don't create any unwanted forward drive
- For a barrel roll in the opposite direction, utilize opposite inputs



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### Post-Flight Questions / Suggestions

- How did your performance match the initial objectives?
- Were you able to transition smoothly, staying on the initial heading and altitude?
- What techniques did you feel comfortable with and what can you improve on during the next session?
- Do you feel more comfortable going one direction? What can you do differently to improve your weaker direction?

### What Skill is Next?

It is common that when you begin to learn the belly-to-back barrel roll transition that your instructor will also teach you the back-to-belly barrel roll transition at the same time. This allows you to combine learning two fairly simple skills during the same session, and completing one skill automatically sets you up to learn the next skill right away. So although the next maneuver to learn once completing the belly-to-back barrel roll transition is the back-to-belly move, you will likely be at a point where you feel comfortable doing both of them at the same time. If this is the case, the next skill you will learn will be the back-to-belly front flip transition.

