Achieving better swimming is a matter of swimming efficiently. While proper technique is the foundation of good swimming, it is often difficult to isolate a technique problem by simply swimming laps. Stroke flaws can slow a swimmer’s progress and can even lead to injury if continued over time. For these reasons, swimming drills have become a fundamental part of training at all levels of the sport. Drill practice is a swimmer’s primary tool in developing better stroke technique. Drills allow a swimmer to concentrate on a single aspect of a stroke at one time. By providing specific, repetitive practice, and immediate feedback, drills teach a swimmer to maximize efficiency while minimizing effort.

In *The 100 Best Swimming Drills*, Blythe Lucero has compiled the most effective swimming drills gathered from more than 20 years of working with swimmers. The book is organized into sections covering the four competitive strokes: freestyle, backstroke, breaststroke, and butterfly. Each drill is explained step by step and accompanied by comprehensive diagrams. Drill feedback charts are included to help swimmers identify problems and make modifications. Underwater and surface photographs give swimmers optimal images to emulate as they practice. The 100 Best Swimming Drills is an excellent resource for swimmers at any level in the quest for better swimming.

Blythe Lucero has been coaching swimming for more than 25 years. She currently oversees two teams, Berkeley Aquatic Masters and Berkeley Barracudas, where she brings her passion for swimming to the development and training of swimmers of all ages, from novice to world class. Blythe grew up in Berkeley, California, in a large artistic family. She learned to swim competitively in high school, achieving All-American status in college. In addition to coaching swimming, she trains Water Safety Instructors for the Red Cross.

Blythe Lucero has also written a follow-up to this book, *100 More Swimming Drills*, as well as the books *Training for Faster Swimming*, *Technique Swim Workouts*, and *Masters Swimming – A Manual*. 
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DRILLS FOR

FREESTYLE
BODY POSITION DRILLS

An efficient freestyle is built on good body position. The way we float in the water is affected by our core tension. For a better freestyle, we must learn to shift weight forward, and achieve a “downhill” floating position. The goal of the following drills for body position is to experience an advantageous float and effective core stability.

Downhill Float

THE PURPOSE OF THIS DRILL
• Learning to shift weight to achieve a “downhill” floating position
• Understanding the importance of a correct head position
• Feeling effective core tension and stability

HOW TO DO THIS DRILL

Step 1: Float face down in the water, with your arms at your sides, in a head leading position. Don’t attempt any forward motion.

Step 2: Notice your body position. For most people, the legs will soon begin to sink, leaving the swimmer in an “uphill” floating position.

Step 3: To begin correcting this disadvantageous floating position, lower your chin, so you are looking at the bottom of the pool, not forward. For many people, this simple action will have a positive effect on their float, including raising their sinking legs a bit.

Step 4: Now focus on your spine. Make it as straight as possible by contracting your abdominal muscles and pulling your bellybutton in. Learning to achieve and maintain a straight spine through core tension is an important skill that can be applied to all strokes.

Step 5: While holding your core stable, lean forward on your chest. Doing so should allow your hips and legs to rise toward the surface.
of the water. This is the desirable “downhill” floating position upon which you can build a good freestyle.

**Step 6:** Stand, breathe and again lay horizontally in the water, face down, this time with your arms extended over your head, hands leading. Look at the bottom of the pool, achieve a straight spine and stable core. Shift your weight forward and feel the “downhill” float.

---

**Figure 1a** Downhill Float

**Figure 1b** Uphill Float
Freestyle

Log Roll

THE PURPOSE OF THIS DRILL
- Maintaining the horizontal axis while rolling
- Accessing power from your core
- Getting comfortable floating “downhill” in a non-flat position

HOW TO DO THIS DRILL
Step 1: Float face down in the water, arms at your sides, head leading, without attempting any forward motion. Achieve a “downhill” float and position your head so you are looking at the bottom of the pool.

Step 2: Maintaining your core tension and head position, roll onto your right side by rotating your right hip and shoulder one quarter turn clockwise. Hold for 5 seconds.

DRILL FEEDBACK CHART

<table>
<thead>
<tr>
<th>Problem</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>My legs still sink.</td>
<td>For some people, either because of densely muscular legs, or low body fat, their legs will tend to sink no matter what. For these people it is all the more important to learn to hold their core in a “downhill” floating position.</td>
</tr>
<tr>
<td>I can’t balance on my chest.</td>
<td>Try rotating your shoulders back, and rounding your chest out. Pretend you are standing at attention horizontally. Focus on your breastbone, moving it gently lower in the water.</td>
</tr>
<tr>
<td>I can’t breathe.</td>
<td>This drill requires you to hold your breath. When you run out of air, simply stand up and start again.</td>
</tr>
</tbody>
</table>

Modification: This drill requires you to hold your breath. When you run out of air, simply stand up and start again.
Step 3: Maintaining your core tension and head position, roll onto your back by rotating your right hip and shoulder one quarter turn clockwise. Hold for 5 seconds.

Step 4: Maintaining your core tension and head position, roll onto your left side by rotating your right hip and shoulder one quarter turn clockwise. Hold for 5 seconds.

Step 5: Maintaining your core tension and head position, roll back onto your front by rotating your right hip and shoulder one quarter turn clockwise. Hold for 5 seconds.

Step 6: Stand, breathe, then repeat this drill rolling counter clockwise.

Figure 2  Log Roll
Twelve Kick Switch Freestyle

THE PURPOSE OF THIS DRILL
• Maintaining a “downhill” float while moving
• Beginning to feel leverage from the core
• Identifying the longest freestyle position

HOW TO DO THIS DRILL
Step 1: Float on your side in the water, arm towards the surface at your side, the arm closest to the bottom of the pool extended over your head. Engage core tension to achieve the “downhill” float.

Step 2: Begin a gentle but continuous flutter kick, which should also be directed side to side, rather than up and down.

Step 3: If you are properly aligned, your face will be mostly submerged. To breathe, maintain a stable head position and roll towards your back, breathe, then roll back to your original side position. Create a regular breathing interval.

Step 4: Kick twelve times (each leg equals one kick).
Step 5: Just as you finish the last kick, bring the side laying arm over the water to the front, and the forward reaching arm through the water to your side. At the same time, switch to the opposite side of your body to float.

Step 6: Do twelve more kicks in this position. Repeat the switch with your arms and floating side. Continue to kick twelve times then switch to the far end of the pool.

Figure 3 12 Kick Switch
KICK DRILLS

A productive flutter kick is part of a good freestyle. It provides constant momentum, and counterbalance to the arm stroke. Because the legs require a disproportionate amount of energy, developing a relaxed, sustainable kick is important. The goal of the following freestyle kicking drills is to learn to use an economical flutter kick that will enhance the rest of the freestyle stroke.

DRILL FEEDBACK CHART

<table>
<thead>
<tr>
<th>Problem</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>I go crooked.</td>
<td>Try to align your body and reaching arm.</td>
</tr>
<tr>
<td>My kick is not side to side.</td>
<td>This is usually a result of your hips not being aligned to the side with your shoulders. Use more core tension.</td>
</tr>
<tr>
<td>I can't maintain a “downhill” float.</td>
<td>Check your head position. During the twelve kicks, your lower ear should be resting on the shoulder of your reaching arm.</td>
</tr>
</tbody>
</table>

KICK DRILLS

A productive flutter kick is part of a good freestyle. It provides constant momentum, and counterbalance to the arm stroke. Because the legs require a disproportionate amount of energy, developing a relaxed, sustainable kick is important. The goal of the following freestyle kicking drills is to learn to use an economical flutter kick that will enhance the rest of the freestyle stroke.

Toe Point Drill

THE PURPOSE OF THIS DRILL
- Understanding the importance of a pointed toe kick
- Experimenting with foot pitch
- Develop a centralized kick

HOW TO DO THIS DRILL
Step 1: Lay horizontally in the water, face down, arms extended. To breathe, do a simple press outward on the water with your hands, and
raise your chin gently to the surface, then to return your face to the water, and bring your hands back together in an extended position.

**Step 2:** Begin doing the flutter kick, using alternating up and down motion with your leg. Kick to a depth of about twelve to fifteen inches, and up to the surface of the water. Kick briskly with relaxed, but fairly straight legs.

**Step 3:** Focus on your foot position. To best engage the water, you must use the largest surface of your feet to push against the water. Position your feet so your toes are pointed. Kick briskly for 30 seconds. Feel the tops and the bottoms of your feet push the water as your feet sweep up and down.

**Step 4:** Now, flex your feet at the ankles, setting them at right angles to your leg (the standing foot position). Kick briskly for 30 seconds. Feel the smaller surface with which you are pushing the water. Notice that you don't move forward well. Some people can even move backwards with this foot position!

**Step 5:** Now, reposition your feet so your toes are pointed, and rotate your knees and feet inward, so that your toes are closer together than your heels. Together, your feet should form a point. Kick briskly for 30 seconds. Feel a larger foot surface pressing against the water. Notice that your kick is much more effective, with much less effort, and that there is one centralized splash at your feet.

**Step 6:** Continue kicking with your toes pointed and your feet rotated inward. Kick briskly, with relaxed feet. Feel your kick move you forward as you sweep the water down with the tops of your feet, and up with the bottoms of your feet. Kick to the far end of the pool.
Freestyle

You are fortunate to have excellent foot pitch! As you practice the drill more, adjust your knee rotation a bit to avoid your toes bumping, but do so as little as possible.

Splash from your kick should be a result of your foot moving water, rather than your foot bringing air down into the water. Bend your knees less. Keep your feet connected to the water.

I get cramps in the arches of my feet when I point my toes.

Modification

Try pointing your foot and letting your toes be relaxed. As humans, this position is not natural for us. It can be improved as you practice more.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>My kick makes a huge splash, no matter what foot position I use.</td>
<td>Splash from your kick should be a result of your foot moving water, rather than your foot bringing air down into the water. Bend your knees less. Keep your feet connected to the water.</td>
</tr>
<tr>
<td>When I turn my feet inward, my big toes bump into each other.</td>
<td>You are fortunate to have excellent foot pitch! As you practice the drill more, adjust your knee rotation a bit to avoid your toes bumping, but do so as little as possible.</td>
</tr>
<tr>
<td>I get cramps in the arches of my feet when I point my toes.</td>
<td>Try pointing your foot and letting your toes be relaxed. As humans, this position is not natural for us. It can be improved as you practice more.</td>
</tr>
</tbody>
</table>