

Bridgewater State University Swimming and Diving



Competitive Swimming Technique Drill's

Our effort is to list as many **Competitive Swimming Technique Drills** in one easy place to access them this page will be updated frequently...

(Would you like to add a swim tech. drill then e-mail [mcaruso@bridgew.edu](mailto:mcaruso@bridgew.edu))

**Scroll Down for Competitive Technique Drills in the following order...**

1. Freestyle
2. Backstroke
3. Breaststroke
4. Butterfly
5. Starts, Turns, and Finishes

## Freestyle Drills:

- A. **Fist Swimming:** Swimming with hands completely in a fist. No "karate-chop" hands allowed! Concentrate on body position, using your forearm in the catch and optimum elbow bend through the stroke. When you return to swimming with an open palm, your hands will feel as large as kickboards! Have fun and think Distance per Stroke!
- B. **Catch-Up Drill:** When swimming *Full Catch-up* freestyle, pull with one arm at a time and touch your hands in a streamlined position out front between each alternating arm stroke. Keep your extended hands about 8 inches under the surface of the water for improved body position. Concentrate on swimming in the front quadrant and keep a long, streamlined body line.
- C. **Fingertip Drag Drill:** This drill is swimming normal Freestyle while dragging your fingertips along the surface of the water on the recovery. Focus on a high elbow recovery, which ensures proper hand and elbow position at your hand entry. You should also check your body position during this drill, focusing on good side-to-side rotation.
- D. **4/6/8-Count (beat) Drill:** This can be done for both Freestyle and Backstroke. Kick on your side for a count of 4, 6 or 8 kicks (or counts). Take one full arm stroke to rotate to your other side for another 4, 6, or 8 kicks, and continue through the swim. While on your side, focus on correct body position. When executing the switch, begin by lifting the elbow of the arm on the water surface (top arm) and recovering it over the line of your body. The extended arm (bottom arm) stays extended to maintain a streamlined body position, until the elbow of the recovery arm has passed over your head. Then execute a quick switch to your opposite side. Use core body muscles to rotate, while maintaining a hold of the water with your bottom arm.
- E. **Gallop Drill:** This is the same as the 6-Count Drill above, but you take three strokes as you switch from side to side. Focus on long strokes and quick hips in these three strokes, completely rotating from one side to the other. Maintain great body position while kicking on your side!
- F. **Single Arm Swim (R, L) Drill:** Single arm freestyle swimming can be done in one of two ways.  
**Preferred:** With the opposite (nonworking arm) at your side. Breathe to the side of the nonworking arm. The secret to success with this drill is to complete your breath before stroking. Concentrate on the catch, initiating body rotation with the core body muscles. Take this drill slowly: technique is more important than speed.  
**Old-School:** With the opposite (nonworking arm) extended in front. Breathe to the side of the working arm. Focus on high elbow recovery, hand entry, and hand acceleration.
- G. **Rhythm Drill:** Single Arm freestyle with opposite arm at your side (see description above), executing 2 right arms and then 2 left arms. This takes some practice, but may very well become your favorite freestyle drill once you master it. Focus on rhythm and timing from the hips. Remember to take your breath with an arm extended out front (on the opposite side of the extended arm). If you swim this drill easily and well, your technique is close to perfect.

H. **10/10 (simple)**: to promote good body roll and head alignment (when you add breathing - see the next drill). This looks like regular freestyle in very slow-motion. If you flip over and keep your nose pointing up while you do this drill, it works for backstroke. •One arm is extended forward, pointing toward your destination (front hand). The other is backwards, pointing toward where you just left (back hand), with the arm resting against the edge of your body.

You should be on your side, with the back hand side of your body up, the front hand side of your body down (toward the bottom of the pool). Your ear should be against your front hand shoulder, chin in line with your chest, eyes sideways (or even up a bit), mouth out of the water (so you can breathe). Take 10 kicks, then stroke, so that your body rolls and your hands switch places. The front hand takes a stroke underwater and finishes against your side, becoming the back hand.

The back hand recovers over the surface of the water, becoming the front hand. Your head switches, rotating with your body (rolling down into the water and then up on the other side), and you continue, taking 10 more kicks, then everything switching again. When you have this drill figured out, move onto the next step, adding breathing (see the next drill).

I. **10/10 (add breathing)**: just like regular 10/10 but you change your head alignment to mimic a relatively normal swimming position for freestyle. You look where you are going! •Place your head so your cheek is against your front hand shoulder, eyes sighting down your front arm toward your destination.

You need to roll your head to breath, and then reestablish its position looking forward along the front arm. The breath should be taken away from the recovering arm (the one that is changing from back to front) just as that hand goes in the water; as your body rolls, roll your head with it.

As you get better at this drill, play with decreasing the number of kicks taken while on each side of your body until you can move smoothly from the slow-motion drill (10/10) into regular speed freestyle (3/3 for a "six-beat" kicker)

J. **3/4 Catch-Up**: Just like full catch-up, except the stationary (front) arm begins to work or move before the other arm fully "catches-up" - it begins to move after the working arm is about 3/4 of the way through a full arm motion.

K. **Catch-Up with a Board**: Just like regular catch-up, only your front hand is holding a kick board. As the arms trade places, they hand off the board to each other. You can substitute a pencil - or anything else that won't make you sink.

L. **Heads-Up Freestyle (lifeguard swim)**: When doing this drill, imagine yourself as a great white shark tracking its prey. The Great White is the only shark that lifts its head out of the water. Its eyes can rotate 360 degrees because they have no nictitating membrane. Head-up freestyle is a good technique to practice to perform well in lake or ocean swims.

Begin swimming with the head up and the chin just touching the water's surface. Keep your head still and keep a reference point in front of you. Maintain high elbows and hold them through the pull phase (when the arm goes beneath the body and the hand pushes water).

During the pull phase, keep your hand beneath your sternum and press through the push phase (when the hand is back out of the water as arm stretches out to get ready to re-enter the water). Head-up freestyle can be practiced in a pool, ocean, or lake.

- M. **Distance per Stroke Drill (DPS):** Have your swimmers do a set of 30 x 25's on :30 seconds. They should descend their times in sets of three. The first 25 should be easy and the swimmers should count their strokes. The second 25 should be a little faster, but have the swimmers try to hold the same stroke count. The third 25 is still faster and they should try to hold the same number of strokes. Then they start over on the fourth 25 with an easy pace.
- N. **Streamline Blastoff's (Free or Fly):** The swimmers should streamline and kick (Free or Fly) as fast as they can (SPRINT) 12.5 yards underwater. Finish med pace for rest of 25.
- O. **6 – 6 Turns:** The swimmers do a turn, and then push off on their back for six kicks. They then turn to their side for six kicks before doing a bottom arm pull. They must stay streamlined past the flags during all the kicking.
- P. **Armpit Drill:** The swimmers should touch their armpit during recovery. They should concentrate on keeping their elbows up and sliding their hands close to the body.

### **Backstroke Drills:**

- A. **Single Arm (R, L) Drill:** Single arm backstroke is always done with the opposite (nonworking) arm at your side. Allow the opposite arm to be completely relaxed, and do a half-recovery if it feels natural. Concentrate on full hip and shoulder rotation and great body position.
- B. **Rhythm Drill:** Single arm backstroke alternating 2 right arms and 2 left arms. Do a half recovery with the non-stroking arm. Focus on rhythm (early hips) and body position.
- C. **Hesitation Drill:** Swim normal backstroke, except as your arm begins the recovery, pause and hold the recovery arm at a 30-degree angle out of the water. You should already be rotated to your other side, and your opposite arm should be in the perfect "catch" position (hand 8-inches underwater, palm turned out and downward slightly, elbow high) if your timing is right. Make sure you are still holding your hips up near the surface of the water in this position. After holding for 3 seconds, complete the stroke and pause on the other side.

- D. **Catch-Up Drill:** As with the Freestyle version, pull with one arm at a time all the way through the stroke. The non-moving arm should be extended out front in a good streamline position. You should not actually touch hands when switching strokes from one side to the other, but allow your arm to complete its recovery through the hand entry before pulling with the opposite arm. Again, this drill is great for working on body position (hips up, full side-to-side rotation).
- E. **Gallop Drill:** This drill for backstroke is a little different than the Freestyle version; it focuses on arm speed. Kick on your side for a count of 6-8 seconds, holding the recovery hand not at your hip but about 6 inches up (30 degrees) out of the water. Lower the recovery hand back into the water by your hip and then explode with 3 quick, powerful strokes. Snap your hip rotation and maintain good body position. After 3 strokes, repeat.
- F. **Double arm pulling and leg kick:** Try swimming with both arms at the same time it develops the bent arm action as well as a shallow push through to your hips. Your aim is to reduce the number of strokes across the pool.
- G. **Kick with Half Recovery:** The swimmers lift their thumb out of the water and recover to the midpoint. Then they stop and rotate their hand as if it were the whole stroke. The swimmers should then slowly lower their arm back to their side. This is then repeated with the other arm.
- H. **Kick and Roll:** Swimmers kick with their arms at their sides. They roll their body from one side to the other every 6 kicks. Be sure that they keep their heads still and that the kick turns with the shoulders.
- I. **Bent Elbow Drill (Underwater Pull):** The swimmers should kick with their arms at their sides. They bend their elbows to bring their hands to just under the surface of the water. They then push the water toward their feet snapping their wrist and hand at the finish.
- J. **Streamline Blastoff's (Free or Fly):** The swimmers should streamline and kick (Free or Fly) as fast as they can (SPRINT) 12.5 yards underwater. Finish med pace for rest of 25.
- K. **All Flags Drill:** The swimmers kick backstroke in a streamline position. They must stay streamlined and underwater past the flags after each turn.
- L. **Board Kicking Drill (Gravestone Drill):** This is a good drill to correct a pedaling motion in the kick. Swimmers kick while holding a board lengthwise over their thighs. If they hit the board with their thighs and knees, it indicates a pedaling motion in their kick. The board will lie quietly if the swimmers are kicking correctly.
- M. **Double Touch Recovery:** The swimmers should be on their backs kicking with their arms at their sides. They then lift their hand through a full recovery to touch the water overhead before bringing their arm back to their side. This is done twice with the right arm, twice with the left arm, then two complete stroke cycles.
- N. **Thumb Lift Drill:** Swimmers kick with both arms at their sides. They should roll their shoulders and lift their hand 6-12 inches out of the water and then let it fall back into the water.
- O. **Goggles on Forehead:** Have the swimmers swim a 25 with their goggles resting on their forehead. They should try to swim without them falling off. This drill forces the swimmers to maintain a steady head position.

## **Breaststroke Drills:**

- A. **Two-Count Glide Drill:** Hold the streamlined (*stretched*) position of the stroke for a full count of two (one alligator-two alligator). Keep your head down and neck straight. In the breaststroke, be sure not to stop your hands under your body, but only in the extended position. Then, start the pull *slowly*, pitching the hands outward until they are shoulder width apart, and then accelerate your hands through the power phase (the in sweep), continuing all the way through to the recovery. It's a good idea to combine this drill with double underwater pull-outs to increase the feel of gliding in the streamline position.
- B. **Two-Kick / One-Pull Drill:** Hold the streamline for a second kick in each stroke. While doing the second kick, allow your hands to separate slowly to press your head and chest lower in the water. Keep your chin down, and look down at the bottom of the pool. This will prepare you for a more powerful in-sweep and recovery.
- C. **Two-Pull / One-Kick Drill:** Take a powerful pull swinging the hips forward and under your torso and then throw your hands into the recovery / streamline while making an exaggerated dolphin kick. Repeat the powerful pull but kick a breaststroke kick. Alternate between the two kicks. Notice that the hip motion should be identical between the dolphin kick and breaststroke kick.
- D. **One-Pull / Dolphin-Kick / One-Kick Drill:** As with the drill above, take one powerful pull and throw the hands into the recovery while executing a strong dolphin kick. Then, hold the streamline position with the upper body and arms as you execute a powerful breaststroke kick. This drill also emphasizes the undulation of the hips, streamline position of the arm recovery, and power of the kick.
- E. **Opposite Hand / Foot Drill:** Pull with your left hand only, keeping your right arm extended out front, and kick with your right leg only, keeping your left leg extended out back. Repeat this drill using the right hand and left leg. This drill takes practice, but you will gain a better feel for the "short-axis" nature of the breaststroke.
- F. **Blind Drill (25's @ :20 rest):** This drill works with all strokes and checks your position in the water as well as helping maximize swimming effort. It is diagnostic in nature. Many people swim with a very uneven stroke that pulls to one side which reinforces bad habits and creates an imbalance during the swim.

BE CAREFUL OF OTHERS IN YOUR LANE! Let them know what you're doing ahead of time. Find out how straight you swim with your eyes closed and limited breathing. Start very easy. If you are able to swim straight without running into the lane line, pick up the speed.

Sight-breathe one or two times per length to check how straight you are swimming. Try not to lose your rhythm as you sight. If you find yourself pulling to one side or the other, ask your coach to watch you swim to identify the cause of the unevenness.

- G. **I Dream of Jeannie Drill:** This drill is for breaststroke and is named for the character in the old TV series "I Dream of Jeannie" where Jeannie used to fold her arms in front of her when performing a task. The drill enables swimmers to maintain better balance with hips high in the water.

Doing the breaststroke kick with a kickboard often causes your hips to sink because of the unnatural flotation given to the upper body. The drill also provides additional frontal resistance and a method for maintaining high elbows while kicking. It discourages sculling and pulling during the kick.

Fold your arms in front of your head so each hand is lying on top of the opposite elbow. Keep your elbows high so your forearms are parallel to the surface of the water. Now kick breaststroke while holding your arms in this "Jeannie" position.

- H. **Breaststroke Kick Drill:** This drill encourages a narrow, propulsive breaststroke kick. Push off the wall and pull your arms to your side. Leave them there and kick the length of the pool, touching your ankles to your fingertips during the recovery.  
**TIP:** A wide breaststroke kick may feel stronger because your legs encounter more resistance than with a narrow kick. However, it is the propulsion that counts, and a narrower kick focuses more energy on propelling the body forward.
- I. **Breaststroke Pull Drill:** This drill works on developing a wave motion breaststroke. Swim the length of the pool breaststroke, but use a single dolphin kick to replace the regular breaststroke kick.
- J. **Breaststroke 2+2 Drill:** This drill works on the similarities between the breaststroke and butterfly: the undulation, on the out sweep. Catch on the pull, and on getting a deeper in sweep for the breaststroke. Do 2 strokes breaststroke with breaststroke kick, then 2 strokes butterfly with the dolphin kick. Try to keep a steady rhythm going for the entire length of the pool.
- K. **Short Axis Drill:** This drill encourages you to use your body in the breaststroke and butterfly and to get used to releasing the arms from all of the responsibility of moving you along. It's also good anaerobic training because you will not be raising your head to breathe during the cycle.

Give a gentle push off the wall or bottom to get a little momentum going. Stay balanced in the prone position with your arms back at your sides. Push downward into the water with your chest, allowing your head to relax up to the surface. Don't dive your nose into the water. Allow your hips to follow your chest down into deeper water. This will begin to force your chest back up to the surface. The legs will follow the hips and you will get a little forward movement. **DO NOT KICK!** Allow your legs to follow you through the water. Your body will begin to rebalance, so get ready to start the process all over again. Do this drill with constant rhythm through the core of your body and don't hesitate during the cycle.

You are not going to go fast in this drill. In fact, you'll go very slowly. So focus on mastering the technique. Then in another part of the practice, think about the drill as you practice breaststroke or butterfly.

- L. **Back Kicking Drill:** Practice your breaststroke kick while lying on your back, advises Blythe Lucero in "Technique Swim Workouts." Float on your back and do a breaststroke kick in which you attempt to touch your heels to your fingertips. Ensure that your knees stay underwater. This creates a straight line from your shoulder to your knee, which eliminates the potential for kick drag. It also helps you practice keeping your knees below your waist during your kick.
- M. **Touch Your Heels:** Perform the "touch your heels" drill. Put your hands at your hips, slightly behind your back. Touch your heels to your fingers between each kick you take. Swim the pool's length.
- N. **Streamline Drill:** Emphasize the streamline position with the three-kick breaststroke, advises Lucero. Float in a hand lead position. Do three kicks before you do one complete pull, kick and glide cycle. Repeat as you go down the pool for one to three laps.
- O. **Breaststroke Pull with Free Kick:** The swimmers should pull breaststroke while doing a rapid flutter kick. This drill is good for increasing turnover. The swimmers should emphasize fast hands and fast feet.
- P. **Elbow Squeeze Drill:** The swimmers should swim 25's concentrating on squeezing their elbows together in front of their chests. They should shrug their shoulders in order to lift the body high out of the water and to speed up recovery.
- Q. **Half Pull Breaststroke:** The swimmers do a half-pull so that their arms stay in front and are fast from the end of the up sweep to the end of recovery. This is a good drill to prevent over-pulling.
- R. **Hand Speed Drill ("Laces"):** Have the swimmers swim with their hands laced together and fully extended. They should bounce their hands off their chests and recover as quickly as possible. The swimmers should bounce their hands off their chests three times along with doing one kick with a two-count glide. The fourth time they should pull, kick, and glide to a count of two.
- S. **Sculling Progression Drill:** The first step is to have the swimmers scull while upright in deep water. Next, have them scull on their stomachs with their hands out in front. They should start narrow and progress to wider sculling. Then, while still on their stomachs and with their elbows up and forward, they should scull their hands in and out quickly and up underneath their chin. The sculling should resemble windshield wipers. This drill can be used to help the swimmers feel the sculling action of the stroke. (Kathy McKee – D.S.C.)
- T. **3 Pulls/1 Kick or 2 Pulls/1 Kick:** The swimmers legs should remain straight during the pulls. They should concentrate on a strong pull.
- U. **3 Pulls – 3 Whole Strokes:** During the three pulls, the swimmers should not kick at all, letting their legs drag behind them. This drill helps to reinforce the carry-over between drills and the whole stroke.
- V. **4 Kicks Underwater/1 On Top:** The swimmers should take four kicks underwater before surfacing to take one kick on top of the water. The swimmers should maintain a tight streamline position during the entire drill. They should take a breath when they come to the surface for the one kick on top.

W. **Multiples Drill:** Have the swimmers take two or three pullouts off of each wall. This drill is great for fast 25s or 50s or as a part of longer sets.

### **Butterfly Drills:**

A. **Single Arm Fly Drills:** This drill traditionally has been performed with one arm extended and one arm stroking. Focus on the kick timing of "kick your hands into the water" and "kick your hands out of the water". Accelerate the pull, and snap the hands through the finish and into the recovery. For the recovery portion of the stroke, you can do one of three drill options:

**\*Thumb-Tip Drag:** Bend your elbow and keep it high. With your palm facing behind you towards your feet, stick your thumb down and draft is along the surface of the water. This drill helps keep your hands and elbows in the proper position at the hand entry.

**\*Super-Dolphin:** Over-emphasize the "dolphins" undulation of the stroke. During the recovery, reach up straight to the sky with your arm, and look up at your hand, Drive your upper body upwards as high as possible, and then dive forward as your hand enters out front, driving your hips upward. Feel the rhythm of the arms with the kick.

**\*Standard Recovery:** Keep the elbows slightly bent, and sweep the hands low over the water during the recovery. Drive your head more forward than upward, and breathe facing forward. Practicing this drill simulates the stroke without tiring the swimmer as quickly.

An alternate way of swimming the single arm fly drill is to leave the nonworking arm at your side. This drill works on connecting the finish of the butterfly stroke with the recovery. You will have the feeling of "throwing your arm away." Always concentrate on "getting in front" for an effortless butterfly stroke.

B. **Three-Kick / One-Pull:** Extend the arms out in front in streamline position and take three full kicks. After the third kick, take one strong pull in time with the kicking. Recover the arms to the streamline position and repeat.

C. **Streamline Blastoff's (Free or Fly):** The swimmers should streamline and kick (Free or Fly) as fast as they can (SPRINT) 12.5 yards underwater. Finish med pace for rest of 25.

D. **One up Drill:** The swimmers kick on their sides with one arm up and the other arm at their side. They should concentrate on kicking both ways and moving their feet quickly. This drill helps to get the hips into the kick.

- E. **Breathing Drill (Butterfly Hypoxic):** The swimmers swim 100s breathing every other stroke on the first length, every third stroke on the second and third lengths, and every other on the fourth length. Do not allow for variations with the pattern during the drill.
- F. **Butterfly Corkscrew:** Purpose - work both the upbeat and downbeat. 4 Kicks on the stomach, 4 kicks on the right side, 4 kicks on the back, 4 kicks on the left side, repeat. Try to keep the kick continuous.
- G. **Hands Back Drill:** Dolphin kick on the surface, with hands held at the side and without a breath or with "limited breathing". Focus on continuous, "full range" kicking and lift the hips out of the water.

### **Start, Turn, & Finish Drills:**

- A. **Push Drill:** The swimmers should drive off the bottom of the pool in deep water. Have them hold a tight streamline position, kick, and stretch to the backstroke flags. They should attempt to pop out of the water as far as possible. This drill will help swimmers get a strong push off of each turn.
- B. **Torpedo Drill:** Have the swimmers push off the wall underwater and glide as far as they can. Stress to them that the push and the glide are fundamental. Establish a standard for distance for each swimmer.