

BUTTERFLY

The butterfly should be the most natural of all swimming strokes to perform. Yet, many swimmers think this a difficult stroke to learn and perform. What makes the fly so difficult is that the arms must move simultaneously, and part of that movement includes out of the water movement. Therefore, the movement out of the water needs to be quick, low, and efficient. If the out of the water movement by the swimmer is slow, high, and/or not efficient, the swimmer will lose speed and momentum, thus making the fly extremely difficult to perform.

On the entry of the stroke, the hands should be slightly to the outside of the shoulder, nearly outstretched, and the palms should be pitched to approximately 45 degrees to the surface. Good flyers will have their elbows slightly flexed at the entry. Stronger flyers could bring their hands a little closer to center, but at some point, just inside the shoulder lines, a swimmer will reach the law of diminishing returns whereby timing will be lost and thus, so will momentum. At the point of entry, the head, whether it be finished from breathing or down on the non-breathing stroke, should be in the water when the hands touch the surface. The hips should be up and the chest pushing down and forward at the time of the entry.

The next phase of the stroke is the out sweep. As in freestyle, extending the elbows will begin the swimmers arm to extend forward. The chest continues down and forward as the hips continue to rise. Many swimmers make the mistake of turning the palms in and pulling the hands under the body immediately after the entry. If you do this, your hands will not sweep outward far enough to place them in position for an effective down sweep and in sweep.

The catch is made as your hands pass outside shoulder width. It is done at the same time as the completion of the down beat of the kick. The pitch of your hands at this point should be outward, downward and backward. Your elbows will bend at this point because lift force of your hands causes your body to be thrust forward over the hands.

Once the hands have become even with the bottom of your rib cage, the hands should be thrust out and back. Keep the hands as close to the hips as possible. The closer the hands are to the hips, the faster the swimmer will go. This is the strongest, most powerful, and fastest part of the stroke. The head should be aligned with the body, not too high or too low so as to influence the line of attack. On the breathing stroke, the swimmers should start his/her breath as the hands cross under the rib cage. The swimmer should never let their head come to a complete stop in the stroke. Once the breath is taken, return the head to the water before the hands hit the surface on the entry.

A common error for the swimmer in breathing is to begin breathing as soon as the hands begin to pull back from the entry. This will cause the hips to drop, cause greater resistance and loss of momentum. Thus, the swimmer will tire more quickly and make the stroke much more difficult than it should be.

The fly should also have two distinct kicks within the stroke. The first, and weaker of the two kicks, should occur as the swimmers hands enter on the entry or top of the catch. The second and strongest of the two kicks is performed as the hands exit the water for the recovery. This needs to be a strong kick as it is the kick that must propel the hands over and forward over the water.

Finally, the recovery should be low and wide. The higher the hands recover, the more the swimmer either has to flex the elbows or fight the pushing down effect from the weight of the arms above the water. The swimmer should take particular care to make sure the little fingers are up and slightly forward of the hands on the recovery. As the hands pass the shoulders on the forward reach, the swimmer should rotate the palms to catch the water at the previously described 45 degree angle to the surface.

BUTTERFLY KICKING DRILLS

Most of these drills can be performed with or without fins - unless otherwise noted.

No Board - hands in front kick: In this drill, the swimmer holds his/her hands in front of him/her, locks his/her thumbs and kicks fly with the head up. With no board, the swimmer is forced to kick harder and more effectively to keep from sinking.

This drill increases the strength of the legs.

No Board Kick - hands on back: This is probably the most difficult of any drills. It is done by putting the hands on the back and kicking fly while holding the head up. The swimmer must create a strong and efficient kick to keep from sinking.

This drill should not be used with beginners because of the difficulty of the drill.

Head In - hands on back kick: This drill is done by putting the hands on the back and kicking for four kicks, taking a breath and kick again. The emphasis of this drill is placed on trying to keep a rhythm flowing. It will help to develop stronger legs.

The drill is meant to create the correct timing between the kicking and breathing.

Underwater Kick: This drill is done underwater with the hands in front or to the side. The swimmer kicks fly underwater until he/she need air, comes up, get air, and resumes kicking.

This drill will increase the swimmers "feel" for the water. It is a good drill for beginning flyers.

Fly kick on back and sides: Whether the swimmer is kicking fly on the sides or back, the swimmer must maintain the streamlined position. By kicking on the sides or back, the swimmer will be dragging less air on the sides or back and will be better able to feel the thrust from the kick. A variation to this drill is to kick 4 times on the front, 4 on the right side, 4 on the back, 4 on the left side, and repeat for the length of the pool. These are good drills to improve kicking mechanics for intermediate and advanced flyers.

Swimmers who lack a "feel" of the water for their kick should do this drill often and efficiently.

BAM-POW: This is a good kicking drill for beginning to advanced fliers. There are two kicks to one butterfly arm stroke. Though both kicks are to be powerful, the second kick is to be explosive.

This drill will help to develop that explosive kick.

The swimmers starts by kicking fly using a kick board. The swimmer should be thinking to them self: "Bam, Pow, Bam, Pow" in a steady cadence. The swimmers should perform a normal, but strong kick on the "Bam," but a stronger, more explosive kick on the "Pow."

This drill will help to develop the definite two beat kick needed for the fly.

BUTTERFLY ARM DRILLS

One Arm Swims: This drill is swum at half speed. Swimmers should be doing this drill to correct the mechanics of the stroke and not to be trying for speed. Speed of the stroke is not important in this drill. The swimmers should be trying for correct arm stroke mechanics above all else.

One arm is left at the side, with the hands at the hips. The other arm strokes by itself. The swimmer should begin by breathing to the side and once his/her momentum is going, he/she should switch to breathing in front. At the end of the length, the swimmer should switch and have the other arm stroke. This drill can be done with or without fins or with or without a pull buoy.

This drill is a great drill for correcting arm stroke mechanics.

Two-Two-Two: A variation to the one arm swim is the two-two-two drill. In this drill, the swimmer swims two strokes with the right arm, two with the left, and two together. This pattern is to be swum for the entire length of the drill. The stroke is to be 1/2 speed.

This drill, as is the one arm swim, is meant to increase the proficiency of timing in the stroke and stroke mechanics.

Single-Double-Single: A variation of the Two-Two-Two drill, the single-double-single drill has the swimmers starting with the right arm, then strokes with both arms, and finally with the left arm. The cycle is repeated for the specified distance. The swimmer should take care to get good hip lift on the single strokes and take a breath on the double strokes.

This drill is meant to increase timing efficiency, hip lift, the length of the stroke and power of the exits on the double arm strokes.

Down-Under: The most powerful part of the stroke should be the final push and acceleration of the hands from the waistline to and beyond the hips. This drill is designed to work on that phase of the stroke.

The drill begins by the swimmer submerging and having the hands at the hips. The swimmer takes four underwater dolphin kicks. He/she then “hesitates” his/her kick, while sliding his/her hands up the side of his/her body until they reach their waistline. Then the swimmer explodes with a kick as his/her hands accelerate to the hips and then the swimmer glides. After the glide, the swimmer will surface, take more air, submerge, and repeat the drill. This drill will force the swimmer to kick harder and accelerate the last half of the stroke. It should be used with swimmers who have a weak second kick, poor acceleration, and/or who do not finish their stroke out strong.

Board Swims: This drill is done the same way as the freestyle board swims. The swimmer puts the left arm on the kick board, kicks fly and strokes fly with the right arm. At the end of the length, the swimmer switches arms. This drill will increase the proficiency of the stroke mechanics and leg strength.

This drill should be used by swimmers who have poor elbow lift, poor reaching for the catch, poor timing, or poor stroke mechanics.

Four Down; One Up Hesitation: This drill is started in the streamlined position at about 2-3 feet underwater. The swimmer pushes off and takes 4 dolphin kicks underwater, then the swimmer will hesitate and aim towards the surface, sets the hands for the stroke, and then explodes with a stroke on the surface, and catches his/her breath, and goes back under to repeat the drill. This drill will perfect the arm stroke, and create a “feel” for the water through the kicking underwater.

This drill will perfect the timing of the stroke, and stroke mechanics.

Standing, Walking, Swimming: This drill will help to perfect the above-water recovery. The swimmer begins by standing in shallow water and goes through the arm stroke, taking care to perfect the mechanics. When the proper mechanics are obtained, the swimmer will begin walking, keeping the mechanics of the arm stroke going. The swimmer will then layout and begin swimming the stroke, trying to keep the mechanics flowing.

This drill is a good drill for beginning swimmers to learn the proper mechanics of the stroke. It is also a good drill for the more advanced swimmers to review the mechanics of the stroke.