

## **FREESTYLE: Are You Aligned or in need of an adjustment?**

**...Drills to develop a feel for body alignment for maximum efficiency and performance**



**(489)**

For many adults swimming can be the most difficult set of repetitive actions that exist. Just ask any new Masters swimmer who most likely is trying to overcome their shortness of breath. If I asked you to learn to ride a unicycle on a bumpy path while juggling several items, you'd expect the whole process to take some time and understand the need for it to be done in several stages. Swimming isn't that much different. You must master each part separately then experiment with combining them.

Learning proper body alignment and balance is the key to efficient freestyle. Proper alignment and balance is important because in symmetrical balancing activities such as swimming, one element out of alignment will cause its counterpart to fall out of alignment. This new and less efficient alignment and balance will create more resistance, slow you down, and result in wasted effort. To maintain this proper body alignment (in best balance) one must learn body position, balance and stability throughout the stroke cycle. It should be practiced until it becomes second nature. Many developing swimmers think swimming is hard work: No pain no gain. They concentrate on working too hard and getting tired. The reason they're exhausting themselves is because they can't swim efficiently. They could swim as fast with less effort with proper body alignment.

One of the essential elements in achieving proper body alignment is an effective kick. To keep your kick effective align your body by dropping your head to its natural position in line with your spine (as shown in photo 374). This creates a counter balance which pops your hips to the surface and makes your kick more streamlined and efficient. Staying on your side and keeping an arm outstretched in front of the body at all, or most, times during the stroke allows the body in a long and streamlined position. In photo 376 swimmers head is too high. It should be positioned as if it's resting on the bicep of the outstretched arm. Repositioning the head lower will cause the hips to surface more. The whole body will be placed in a position of less resistance. This is much harder to do without a rhythmic kick, ideally more powerful kick.  
**(374), (376)**



Another element of proper body alignment is rhythmic coordination of kicking with the body roll, timing of the arm stroke from one arm to the other, and head with upper torso counterbalancing the lower torso position. Remember, total Alignment is being in-line with your spine, going side to side and staying streamline and avoiding as much frontal resistance as possible.  
**(496)**



Learning this continuous balancing act in which the head, torso, hips, arms and legs work together to maintain a proper alignment throughout the entire stroke is what will make freestyle more efficient. Because good body alignment results in fluent and elegant swimming that looks streamlined, relaxed and almost effortless. (110)



To help swimmers at all levels improve and achieve maximum efficiency and performance Coach Mark uses several progression drills designed in developing a feel for better body alignment. Timing and balance in the water are very important and you may be unaware of them. We encourage developing swimmers to slow down at times and play with the water, so they will develop better feel for the water. This helps create more natural rhythm. Below is a list of drills to incorporate into your training. Coach Mark worked with Nadadores team member Tami Engel at the Marguerite Aquatic Center in Mission Viejo to demonstrate these drills. (345), (013)



Coach Mark, who was named 2005 USMS coach of the year, has been coaching and directing the Masters program at the Nadadores in Mission Viejo since 1996. He served as assistant coach for the 2004 FINA Masters World Championship and in 2005 was selected to be on the coaching staff for the Olympic Training Center/High Altitude Masters Camp. Coach Mark prides himself on developing team excellence in a positive and confidence building environment. He believes each swimmer has an opportunity to use swimming as a life-long activity to be successful in life, while having fun swimming fast at the same time. He currently serves as the USMS Chairman for the Championship Committee.

Tami Engle's swimming career began at a small club team in Cocoa Beach, Florida, and ended with the Mission Viejo Nadadores National Team. She returned to swimming four years ago, and has enjoyed the competition, camaraderie, and friendship that Master's swimming brings. Tami lives in Portola Hills with her husband John, and two daughters Kelsey and Lindsey, both of whom also swim for the Mission Viejo Nadadores.



## **DRILLS (093)**

These drills focus on body alignment, balance, and core stability. They are best done as a part of your warm-up or cool-down and if done consistently, will make a difference. Discipline yourself to make these drills a part of your regular swim regimen. There are variations on all of these drills, and many more that are not listed. As you advance, you may want to combine drills to work on several skills at once, or to add even more emphasis to a single element. Experiment with these drills and develop some of your own. Always work to improve your technique. Good luck!

### **Vertical Kicking (VK)**

This is great for total alignment and being in-line with your spine. When practicing VK keep the kick fairly small, but fast, and do not allow the knee to bend excessively. Keep your head, torso, hips, and legs in line with your spine. In proper posture, swimmer looks straight ahead, shoulders back, abs taught, hips slightly forward, thighs slightly back, all as if standing getting ready to salute. Keep your knees loose and ankles loose (not locked in a position). Use your abs, lower back to start the kick. **(484), (243), (477)**



In photo 243 you can see one of the common flaws in vertical kicking. It is over kicking and kicking mostly from the knees, as if riding a bicycle. This enlarges the cross section which creates resistance. Another common error that occurs frequently also shown in photo 243 is when the torso is out of alignment by being bent too far forward and/or having shoulders rounded forward. Improper balance can be caused by an ineffective kick. Remember to kick from your hips, rather than kicking from your knees. Remember, vertical kick should be tall and proud with power coming from mid section and hips!

## **Single-arm-freestyle**

Teaches keeping correct body alignment, balance, and hip rotation during the full stroke cycle by focusing one arm at a time. Notice your most awkward spot. This is the part that is likely to cause you the biggest slowdown during a regular swim.

**With opposite arm extended:** This is a lower difficulty variation of this drill. Start out streamlined and with a good kick rhythm. Leave the left arm stretched out forward, and take full strokes with your right arm across full length of the pool. Breathe on the side of the stroking arm, once for each stroke you take to maximize work on balance and hip rotation. Switch sides each length. During this drill focus on a clean hand entry into the water and coming to a full extension with the stroking arm, until it almost touches the outstretched arm. Concentrate on a good slow high elbow catch (remember that tall proud vertical kick posture), then accelerating the arm through the stroke, while using your big core muscles to rotate your hips through the stroke. As your stroking arm finishes, you should be rotating to the opposite side. Remember, the left, gliding hand, stays in the front. **(098), (180), (193), (375)**



## **With opposite arm at your side:**

This drill is a bit more advanced. It is executed in almost the same manner as the last drill, but instead of the left arm stretched forward, keep it on your side, palm on your hip, and breathe on the side of the resting arm, instead of stroking side.

Take this drill slowly: technique is more important than speed. At first, consider exaggerating correct movements a little bit.

**(141), (402), (48)**



**Important tips for this drill:** (1) rotate, rotate, and rotate; (2) Practice this drill with the stationary arm in both positions. (3) Time the breathing so it's in the rhythm of the body rotation. (4) Focus on holding the water at the catch and moving your body past your hand with your core muscles, such as lats and abs, rather than pulling with your shoulder muscles. **(395), (391)**



### **Kick-Swim balance drill**

This is a great drill for working stroke symmetry and balanced alignment while starting to put together arm work with the kicking rhythm. Start kicking on your side, one arm forward, head resting on the outstretched arm. Count to 4, 6, or 8 kicks until you're comfortable on that side, and then take three arm strokes (left, right, left) till you roll onto the opposite side and extend the other arm in front, count another round of 4,6 or 8 kicks. Most swimmers do this in a continuous combination of 6 kicks-3 strokes. In the beginning it may take you more than 6 kicks to find the balanced spot.

**Tips for this drill:** While kicking on your side, focus on correct body position (tall proud posture) and keep kicking till you feel balanced, rather than an exact number of the kicks. Arm strokes should start after you find the balanced spot. Make sure your hips don't "get stuck" as you change sides. The roll should be quick and smooth --a "snap"-- as you go from side to side. Focus on long strokes and quick hips in these three strokes, completely rotating from one side to the other. Good rotation will allow you to breath to the side without having to lift your head. Remember, snappy hips and smooth arms. **(196), (411)**



### **Straight-arm catch-up drill**

This drill works particularly well when you feel yourself getting tired and sloppy in a rough workout or a long swim. It stretches and relaxes your shoulders, and helps proper body roll.

Start with a normal freestyle, but focus on holding one arm out in front till the recovering arm catches up with it in front of you. Leave the lead hand in front until your other hand begins to replace it and your body begins roll to the other side. Use the finish of each stroke to launch yourself into the next glide. Making a powerful, accelerated motion with one hand while the other is trying to be smooth and relaxed may seem awkward at first, but that's one of the secrets of fast, efficient freestyle. Apply power when you need to, and relax the rest of the time. Be sure to roll your hips as well as your shoulders and pull with the large muscles of your back and sides.

**Tips for this drill:** Reach forward. Glide. Roll. Throw the water back to your feet. Swim from your hips. The forward straight-arm recovery should initiate the body roll, move you forward; this action will preserve your momentum. On recovery keep your arm straight up in the air and shoulders high. **(157), (515), (165)**



### **Sliding Shark drill**

I call this the "Shark" Drill. This is a fun and challenging drill to try. Use a buoy as if you were pulling. As you begin to swim, hold one leg upright at the knee while using a single kick to help start the hip rotation. You can alternate legs by 25's or 50's. Be sure to roll your hips as well as your shoulders and pull with the large muscles of your back and sides. One leg will initiate rotation and help set core rotational tempo. You will begin to notice an out of balance feeling on one of your sides. Maintain buoy pressure throughout rotation to ensure hips stay up. Focus on a strong body rotation and long strokes. **(225), (457), (234)**

