

Monthly Manager Moments – Article #12

Diving Basics

This month, we're going to begin a series of articles on diving; both from the deck and from the diving board. We'll start off with diving from the deck. Before we talk about specifics of diving technique, remember that diving from the deck should NEVER be done in water less than 9' deep. This may seem like a contradiction to competitive swimmers, who are accustomed to elevated starting platforms that may be mounted over as little as 4' of water! How can this be? Competitive swimmers are indeed at risk by doing racing starts in such shallow water, especially the fully mature athletes that tend to go deeper on their starts than younger, smaller athletes. A move toward moving starting blocks to deeper water has been in existence for quite a number of years now. Still, many facilities cannot afford to change, especially when deeper water does not exist in the facility, or where the deck at the other end of the pool doesn't have the required space or reinforcement to accommodate the platforms. Because of the hardship associated with making the change, swimming associations still allow meets to be held in 4' pools. They're not happy about it, of course; but it's either grandfather these pools, or lose a lot of programs that rely on these facilities.

Deck dives – There are two types of deck dives: long shallow dives/competitive starts; and deep dives. For the sake of simplicity, we'll call the long shallow dives starts, and the deep dives we'll just call dives.

The start – A start is much different than a dive, in form, angle, and purpose. Most competitive swimmers now use a "track start" which is done with one foot forward, and the other foot back, much like the starting blocks in a sprint foot race. A start from the deck is slightly different than a start from a block, but both are essentially the same shallow dive. The objective is to enter the water through a single point and to minimize the depth, and maximize the momentum carrying the swimmer forward. A slight "pike-up" is needed to accelerate the swimmer through the point and shoot forward into a stream-line position. The angle of entry is about 45 degrees, due to the pike-up at the top. Streamline is done by extending the arms overhead with your hands on top of one another and your fingertips extended to make a shape like the bow of a boat (see photo). A start is only about 3' deep at maximum. Again, smaller swimmers will typically not go as deep, unless their technique is poor. Unskilled swimmers tend to belly flop more often than go straight down, although either is certainly possible. The arms are swung forward into the streamline when starting from the deck as you rock your body forward for the take-off. A strong jump is required to make the start work. After take-off, bring both legs together with your toes pointed. Squeeze your upper arms against your goggles to hold them on as you extend your arms into the streamline. Jump forward and up a little, to attain the slight pike-up position at the apex of your start. After entering the water, immediately angle upward to prevent a deep dive, and glide with your body completely straight. If doing freestyle or butterfly, perform a couple of dolphin kicks as you ascend to the surface. Just before getting to the surface, break out of the streamline and start your first arm pull. You should finish the first pull just as you break the surface. The timing of this maneuver will take some practice. Don't start your breakout too early, because your arm will get stuck underwater. When starting from a block, swimmers typically hold the front of the

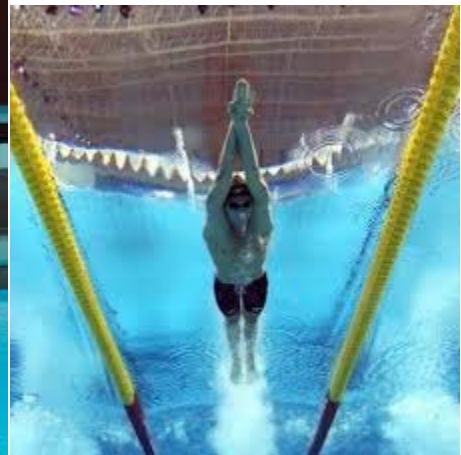
block to help push off as they rock forward to take-off. The arms swing forward into the streamline as you take-off. Here, the extra height (usually 30") will make the pike-up easier, and help to create more acceleration through the single point of entry.

The deck dive – This is much more high risk, due the steep angle of entry. 9' of water IS needed for safe dives, because they're essentially straight down. Try to enter only about 4-5' from the starting point at the edge of the pool. The objective of a dive is to go deep quickly, and to do so without making a splash. However, a competitive diver will not go very deep at all, due the technique called the swim- out. I like to call starts rainbow dives, and deep dives rocket dives. A rocket dive is nearly straight up and straight down again, not like the gentle arc of a rainbow. Deck dives have several steps to a typical learning progression:

- Sitting dive – Start by sitting on the pool side with your feet over the edge of the deck, but on the top of the pool wall. Extend your arms to squeeze your ears with your upper arms. Hyper-extend your wrists to create a flat hand position. Place one hand behind the other and grasp the back of the front/top hand with the fingers of the back/lower hand. This flat hand position is known in diving as a "hand grab." All deep dives use a hand grab position, whereas starts use the streamline hand position. See comparison photos below -



Deep dive - hand grab position.



Streamline – start position.

To execute a sitting dive, rock forward onto your feet and lift your bottom over your head. Keep your head still and avoid tucking your chin against your chest. Although this is commonly taught, it really isn't necessary to do a great dive. It puts your body out of alignment and creates a bad habit that must be broken later when learning to dive competitively. Note the neutral head position of the diver doing a back dive in the photo above, and the tight squeeze of her ears with her upper arms. Aim for a spot on the bottom 4-5' in front of you, to create a steep angle down. Keep your arms over your head and hands flat until you stop descending. This will provide a measure of safety, in case you strike the bottom.

- Kneeling dive – This dive is the same as a sitting dive, other than the starting position. As the name implies, begin by kneeling on one knee at the pool’s edge. The head and hand positions are the same as before. Again, rock forward when ready to take-off. Lift your back leg and push off. Lift your bottom over your head as before to enter hands first. Remember your hand grab position and steep angle of entry. Point your toes and extend your legs as you take-off.
- Standing dive – Here, you’ll start with both feet at the pool’s edge and in a standing position. Bend your knees and lean forward with your arms/hands in the same position as before. Keep your head still and in the neutral position. Fall forward and push with your feet to lift your bottom over your head. Do NOT step off. If you take a step forward, you didn’t dive - you jumped. To do a dive, your feet must leave last and enter the water last. Avoid doing a “rainbow dive” by going out too flat. Deep dives are up and down, and only a few feet from the wall.

Summary – Deck dives are super fun, and a lifelong swimming skill that everyone should know. A couple of safety tips for you before you go out there and try it: practice ALL dives in very deep water (both shallow and deep dives) to avoid impact with the pool bottom and possible head/spinal cord injury. Also – never swim out of a deep dive without proper training first. You can swim your head right into the bottom of the pool. Swim-outs involve an underwater somersaulting action that accompany an arm sweep. The arm sweep and somersault underwater help to pull the splash down and bring the legs into a vertical position as they submerge.

Next time, we’ll talk about proper diving technique from a springboard. Proper springboard diving may look easy, but if it seems easy to you, you obviously haven’t tried it!

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