





## The Swim Breath

Breathing must be coordinated with the arm stroke and kick movements. You should incorporate turning your head with your body roll. As you perform your body roll your head should rotate as well with only a slight turn of the neck to bring half of your mouth out of the water to breathe. Many novice swimmers lift their heads to the front and then to the side in order to breathe as indicated earlier. Avoid this, as it will lower your hips in the water and cause more drag thus sacrificing efficiency. As the head re-enters the water begin exhaling the air slowly at a rate such that you have a small amount left before you take your next breath. Bilateral breathing (breathing every third stroke alternating on right and left sides of the body) is the most effective method. This method will allow you to maintain proper body roll positioning and avoid excessive posturing on one side of the body which happens when you breath to one side all the time, without sacrificing the need for oxygen. If bilateral breathing is uncomfortable alternate methods can be used. On such method is to breathe on one side of the body each length of the pool.

## Swimming Drills part 5 of 5

### Kicking:

Flutter kicking is important to stabilize the arm stroke and help to maintain horizontal alignment in the water. Kicking is also used to propel you forward although for most novice swimmers it can acutely hinder your efficiency.

Kicking begins at the hips. The power is generated through a forceful downsweep of the thigh. The lower portion of the leg follows the lead of the thigh through the downsweep with the knee only slightly bent. The ankle is flexed and the toes are pointed as much as possible. Kicking should be shallow, as the foot, at the end of its downstroke, should only be slightly below the chest or end at a depth of 12-14 inches.

## Cycling Skills part 1 of 2 continued

outside, and braking as needed before entering the turn. Then hit the apex on the inside edge of your riding lane, finally exiting again on the outside (always leaving some room for error and unforeseen hazard). The key is to gradually get into position and smoothly follow a line through the corner.

Use your brakes only up to the beginning of a corner on a descent, **NEVER USE THE BRAKES IN A CORNER**. At that point any traction used for braking significantly reduces the traction available for cornering. If you do have to brake after entering the curve straighten out your line before applying the brakes. If the road surface is good use primarily the front brake. If traction is poor switch to the rear brake and begin braking earlier. In auto racing circles there are two schools of thought on braking technique. One advocates gradually releasing the brakes upon entering the corner, the other advises hard braking right up to the beginning of the curve and abruptly releasing the brakes just before entering the curve. A cyclists should probably combine these techniques depending on the road surface, rim trueness, brake pad hardness, headset wear and the proximity of other riders.

When in a corner on a downhill bicyclists should lean their bikes into the corner and keep the body upright. You should also extend the inside knee down, to lower the center of gravity. To pedal through the corners keep the bike upright while the inside pedal is down otherwise the inside pedal should be up through the corner as the bike is leaning into the corner.

Many cyclists experience a terrifying phenomenon on fast downhill called speed wobble. **What happens is, at a certain speed the bike begins to shake, sometimes wobbling violently.** Many things can cause this to happen and it's not always the bike's fault. So it's good to know ways to prevent and stop it should you experience it. Try this: clamp your knees against the top tube, which braces a main frame member, and should stabilize the bike and stop the wobble. Riders who've experienced wobble learn to always rest a knee against the top tube when descending fast as insurance.



# WCCTC Tri News

## Cycling Drill

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## Freestyle Stroke Phases part 4 of 5

Cycling drills are designed to improve your pedaling efficiency by improving your neuromuscular engagement during each pedal stroke. The following drill should be incorporated into your training throughout the season emphasized more during the base and building phases of your training.

### One Leg –

- Drill: Flat reps at 85+ rpm, HR at long endurance or as indicated.
- Position: In the saddle, focusing on the working muscles, and maintaining an efficient pedal stroke.
- Time: 30 sec right leg and 30 sec left leg.
- Reps: Start with 3 (right and left leg is one set) and build up to 5.
- Frequency: 1-2 times per week.
- Even pressure throughout the entire pedal stroke. Non-working foot is clipped out of the pedal. The foot should move straight forward over the top of the pedal

In order to better understand stroke mechanics the arm stroke is broken down into 6 different phases - entry, catch, down-sweep, in-sweep, up-sweep and recovery. Each arm goes through this cycle in about on second.

**In-Sweep Phase** - This phase begins at the deepest point of the down-sweep phase. The in-sweep starts outside and below the shoulder and finishes close to the center of the body as you are driving the hips and rolling to the side. As the hand and upper arm begin to travel toward the center of the body, the elbow flexes to allow the hand to rise. During this phase, it is important for the hand to be pressing through the water not slicing through the water. Remember not to lift the head up during your breathing pattern. Many novice swimmers will fist lift their head forward then turn to breathe which again can cause in efficient lateral movement.

