



# WCCTC Tri News

## Nutrition reminders prior to training or racing

**Pre-Exercise— tops off  
CHO (carbohydrates)  
stores and spares mus-  
cle glycogen:**

- 1) Do not eat a full meal 2-3 hours before exercising. 20 – 30 minutes before you exercise:
- 2) Fluid Intake: 300 - 500 ml, 10-16oz of carbohydrate drink. 1 hour prior to workout or race. Carbo drink should contain 30-50 gm of carbohydrates.
- 3) Solid Intake: 200-400kcal, 1-3 hours prior to workout, a mix of carbohydrates, protein and fats. Banana and Peanut butter, bagel and peanut butter are a great solid pre-meal options. Other options that should be eaten in combination include most fruit, dried fruit, breads, fig nuetons, pretzels, saltines, crackers w/ peanut butter, peanut butter and jelly sandwiches, pancakes and potatoes.

## Bike Fit 101

Having an appropriate bike fit and good riding posture is critical to performance, comfort and injury prevention. Since a wide variety of bikes are used to complete a triathlon the following information is geared towards a standard road bike position but with tri equipment (aero bars), since that is the most common bike used in triathlons.

For every day riding, not in the aero position, the hand position generally remains on the top of the handlebars or on the brake hoods close to the brake levers. The elbows remain slightly bent to help absorb shock and your shoulders should be relaxed. You should be sitting in the middle of the saddle with a flat back, hips rolled forward, looking out in front of you 20+ yards. The pedals should be set directly behind the balls (1<sup>st</sup> metatarsal of the big toe) of your feet with your feet pointing directly forward.

While in the aero position, your elbow should be just off the back of the aero pad 2-3 inches, while your hands can comfortably grip the front end of the bar extensions. In this position your arms and torso should generally form a 90 degree bend. You should ride with hips rotated forward, with a flattened back and be able to look 20-30 yards in front of you for long periods of time, gaining the aerodynamic advantages of being in the aero position, with minimal discomfort. If you have undue neck or shoulder pain you may have to low, or reaching to far or to aggressive of a position.

Regarding seat height it should be set so

that when you are sitting in your saddle, and your heel is on the pedal at the bottom of the rotation, the leg is fully extended. If your seat is too high you will rock side to side over the saddle and may experience pain in the back of the knee. If your seat is set to low you will feel pain in the front portion of the knee and you will experience a lower power output. Forward and back versus up and down seat positioning is also a critical issue in setting up a triathlon specific bike. Typically, the bike seat is pushed forwards towards the front of the bike, so you are sitting over top of the pedals more and maximizing power. The overall seat position is one of the most critical aspects of a good bike fit and should be done by an experienced bike fitter.

In any position, change your hand position frequently throughout the ride to minimize hot spots and over use injuries. Move by getting down on the drops, up on the brake hoods, next to the stem or into the aero position if you have aero bars. Move forward or backwards on the saddle. Stand up and stretch the back and legs periodically. Move the head/neck forward and back to stretch the neck muscles. Shake out the arms occasionally to relieve pressure off the hands. Remove the feet from the pedals or clips for several seconds if your feet are getting numb.

Riding should be a comfortable, enjoyable component of triathlon training and while riding won't feel like your favorite couch, a good bike fit and proper riding form can go a long way to making those training days is the saddle enjoyable.



# WCCTC Tri News

## Cycling in the Aero Position

Remaining in the aero position while riding and maneuvering your bike is often an easy task once it is mastered. It is important to learn the basic skills of handling a bike while riding in this position since you have shifted your center of gravity more towards the front end of the bike, the bike will be more squarely or twitchy. Due to this issue below are several key tips to remember:

To turn first consider the sharpness of the turn. Only stay in the aero position if the turn is gradual. As you approach the turn gently add pressure to the shoulder/arm



## Swimming Drills part 4 of 5

### Drill: THUMB/Zipper

This drill is used to develop proper up-sweep portion of the stroke. Many novice swimmers will not follow through with their stroke far enough. It is important that as you complete your stroke that the hand reach the hip before it exits the water. In this drill you are swimming traditionally but on every stroke open up the thumb and brush your hip with the thumb as you pass along the hip. The hand and arm should exit the water at the hip. This drill is best done in 50-yard increments followed by 50 yards of traditional swimming.

### Drill: FINGERTIP

This is used to develop proper recovery portion of the stroke from the time the arm exits the water to the time it re-enters the water. During this drill you are exaggerating the recovery portion of the stroke. Exaggerate a high elbow exit out of the water and forward movement of the arm back to the entry phase of the stroke. As the arm/hand is returning to the entry phase of the stroke drag the fingertips along the top of the water keeping the elbow high and arm tight to the body. Complete this pattern on every stroke. This drill is best done in 50-yard increments followed by 50 yards of traditional swimming. Note: this drill can be combined with the Thumb/Zipper drill to emphasize the benefits of both drills.

## Workout Nutrition part 3 of 3

### Post Exercise – restore muscle glycogen levels and aids recovery:

Solid Intake: .4g/kg of Protein and 1.0 -1.2/kg of CHO with a small percentage of fat in 2 hour intervals, particularly after higher intensity workouts. Eat at least 30% of the calories expended during a workout, within 20 minutes of the workout and all the calories expended in the workout within 4-6 hours. Eat small calorie items during this time, but with a full meal within 8 hours of completing the workout. Power Bar Protein Plus and Protein Plus w/Reduced Sugar are great recovery options. Other options that should be eaten in combination include most fruit, yogurt, banana or wheat bread w/peanut butter, low fat chocolate milk, breads, turkey sandwich, smoothies with protein powder.

Calorie output during exercise:

Exercise = approx. 100 cal for every 10 min. of exercise

Fluid Intake: 500-1000 ml or 16-32oz, of Power Bar Recovery over the course of an hour, coupled with the carbohydrate replacement mentioned above.



## Cycling Drill

#2

## Freestyle Stroke Phases part 3 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 stroke and back through the bottom of the stroke.

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.

**Down-Sweep Phase:** during this phase the elbow remains bent and above forearm. As you sweep downward the palm of the hand should tilt slightly outward and then inward as the down-sweep is completed to form an "S" pattern. This pattern is not exaggerated thus the formation of the "S" is minimized. This allows the forearm and hand to engage "new" water as it acts as the paddle pulling you through the water. It is important to visualize yourself getting pulled through the water with every stroke verses pushing water past you with every stroke.

