



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 nougats, pretzels, saltines, crackers w/ peanut butter, peanut butter and jelly sandwiches, pancakes and pota-

Running with Tree Stumps - Bike to Run Transition (T2)

The bike to run transition (T2) will be your hardest transition not only in terms of fatigue but also biomechanically. The fatigue has set in of course from the swimming and biking that precede the run. Often time's athletes will see a quick rise in heart rate, perceived effort, breathing, etc due to this change from bike to run. The biomechanical aspect that makes T2 so difficult comes from the fact your body now has to adjust itself physiologically and mechanically to running after cycling. Although the two disciplines have similar lower body motions the muscle fibers, joints, tendons, etc. are quite dissimilar. The feelings in your legs when you begin the run are often described as running on "tree stumps".

To help make the transition from bike to run easier and more comfortable there are few things to keep in mind:

Prior to the race know your bike in and run out locations and mark your transition spot with a special marker (handkerchief, etc.). Remember the marker you established for your self prior to the race and calmly look for you it as you enter T2. Knowing where all your exits and en-

trances are and where your transition spot is will help you to stay relaxed and not only waist energy.

Pedal in your small chain ring at a higher cadence the last ¼ mile of the bike ride to help redistricted blood flow which will lessen that feel of running on "tree stumps".

Once off your bike jog through the transition area to rack your bike this helps to make some initial biomechanical adaptations before you actually start your run.

As you begin the run portion of the race that "stumpy" feeling can really be evident so don't force your pace. The first portion of the run will feel awkward for the first ½-1 mile but you will be able to settle in to your running goal pace early in the race.

These tips along with regular BR1ck training, in which you complete Bike and Run workouts back to back, will make a big difference you making T2 as seamless as possible.





Running Mechanics

Swimming Drills part 3 of 5

Running Mechanics:

Enhancing Biomechanics – Upper Body

- Shoulders relaxed
- Arms bent to $\sim 90^\circ$ ($\pm 10^\circ$)
- Arms travel close to body
 - Shouldn't cross bellybutton (straw test)
 - Anatomical/Flexibility differences
- Hands held relaxed – not a clenched fist, not flopping (potato chip test)
- Relaxed face – cheeks and jaw
- Eyes looking forward (5 ft)
- Running tall – neutral posture
- Chin parallel to the ground

Enhancing Biomechanics – Lower Body

- Stride Length –
 - There is not one absolute correct stride length!
 - Don't want to overstride – reaching heel far out in front of body
- Stride Length –
 - Target of 170-180 foot strikes per minute (mostly for overstriders)
 - Even Left and Right leg contribution. Ideally consistent throughout entire run

In developing the skills to improve your swim technique and stroke it is necessary to try to isolate the different phases of the stroke as well as body position. The following drills are the most common

Drill: Catch-up

This drill is used to develop proper hip rotation and full arm/body extension. This is a version of the one arm drill. During this drill you are swimming with a delayed stroke. As one arm is taking a stroke the arm is only positioned out in front of you. Once the arm that is taking the stroke enters the waters and meets up hand to hand with the arm that is position in front of you the arm positioned in front of now takes its stroke while the other arm remains out in front of you. It is important to maintain a good kick while performing this drill to keep high body position in the water. Do not let the forward arm drop, particularly at the elbow. As you are swimming breath to the side of you're stroking arm and only concentrate on one aspect of your stroke during any 25-yard length. This drill is best done in 50-yard increments followed by 50 yards of traditional swimming.

Workout Nutrition part 2 of 3

During Exercise- maintains blood glucose levels, spares muscle glycogen, maintains electrolyte and water balance and regulates body temperature

Fluid Intake: 500-1000 ml or 16-32oz, every hour, broken into 10-20 minute increments. Each replacement should be approximately 200-300 ml or 6oz or $\frac{3}{4}$ cup. Fluid should include both Power Bar Endurance and water. Both if exercise is over an hour, water only if less than an hour. The water replacement should correspond with a Power Performance Bar, Energizer Bar, Gel Blast or Power Gel. To replace the appropriate amount of fluid, weigh yourself prior to a workout then weigh yourself after the workout and calculate sweat loss accounting for fluid intake.

Solid Intake: .7-.8g/kg of CHO and .15-.2g/kg of Protein every hour. Power Performance Bars, Energizer Bars, Gel Blasts or Power Gels are great options.

- Electrolyte Intake: for every 16oz, 1lb or 500ml of sweat lost at the average athlete in moderate conditions loses 250mg of sodium. To replace the appropriate amount of sodium weigh yourself prior to a workout then weigh yourself after the workout and calculate sweat and salt loss accounting for fluid intake. Power Bar Endurance as well as Power Gels with added sodium or Power Bar Electrolytes (both taken with water) will supply your needs.



Stretching: The neglected step child

Flexibility, the ability to move your joints through their full range of motion, is one of the key elements of fitness, along with body composition, cardiovascular endurance and muscle strength. The way to maintain or improve flexibility is to stretch. Numerous studies have shown that the muscle elasticity and elongation of tendons/ligaments gained by stretching increases the range of motion of joints and may change performance.

Stretching has for many years had a been the most neglected of all the areas of fitness. Incorporating stretching into your training comes about by enhancing your knowledge of the most productive ways to stretch and how stretching can benefit you, particularly in ways that are not readily apparent.

Benefits of a regular stretching routine

1. Enhanced performance and decreased risk of injury
2. Increased blood supply and nutrients to joint structures
3. Increased quantity of synovial joint fluid (oil in the crank case)
4. Increased neuromuscular coordination and reduced muscular tightness
5. Increased joint mobility
6. Return of muscle to natural resting state

Exercise routine basics

Frequency: 3 times per week (minimum). Better done after every workout

Duration: 10-30 minutes

Intensity: 2 sets of 20 seconds. Hold each stretch, do not bounce, the stretch should be static

Helpful hints in make your program safe and enjoyable:

Stretching should be completed statically. Static stretching calls for gradually stretching through a muscle's full range of motion until you feel resistance or mild discomfort. Hold that position for 20-30 seconds, relax for 5 seconds and repeat the movement 1-2 more times.

The debate as to when to perform a stretching routine is controversial. It is generally agreed upon that stretching at the end of a exercise session will greatly benefit you. Stretching before an exercise session though is generally not recommended unless it is preceded by a 5-minute cardiovascular warm-up. Warming up before stretching increases the blood flow and temperature of the muscles, ligaments and tendons, improving the elasticity and optimal functioning of the muscles and connective tissue. Stretching when muscles that are cold could lead to a strain or pull.

A stretching routine should cover all the major muscle groups of the body as well as any specific muscle groups that are being utilized in a sport or activity. The movement of other areas of the body, other than the muscle group being stretched, should be minimized. Maintain a regular breathing pattern when stretching. Stretching will not head off delayed-onset muscle soreness - the kind that generally occurs the day after unaccustomed strenuous exercise.

Changing a flat tire

Go to the following U-tube link for flat tire changing demo: <http://www.youtube.com/watch?v=i5K-DXt9djA>



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Stretching Exercises

Pectorals

Lying on your back place, knees bent, clasp your arms behind our head with elbows facing the ceiling. Press the elbows into the floor and keep the elbows touching the floor. Hold and



Upper Back/Shoulder

Stand in a doorway, lined up with the opening. Place your arm at shoulder height in the doorway at right angles as shown. Place one foot in front and one behind for stability. Keep your spine straight and rotate your body downward, "nose-dive" fashion. Note: don't push through the doorway, rotate downward. You should feel a stretch in your pec area. Return to the starting position and repeat.



Shoulder

Pull arm across chest until stretch is felt. Turn head away from the pulling arm.



Pull arm across chest until stretch is felt. Turn head away from the pulling arm. Repeat with other arm.

IT Band



Hips, Upper Hamstrings and Low back

With right leg straight out in front of you and left foot placed against right thigh, lean forward until stretch is felt. Repeat on opposite leg.



Inner Thigh/Groin



Begin w/ roller at hip bone on your side. Keep body perpendicular to ground. Balance on forearm. Slowly roll to find "hot spots" Change emphasis slightly by rolling side to side.

While sitting on a foam roller and left leg over right, bring left arm over the left knee. Balance yourself with your right arm and right bent leg. Roll back and forth across the foam roller targeting the glute and upper hamstring area. Repeat on other leg.



Sitting – knees spread apart at the feet and feet are placed against one another. Place hands on ankles and elbow on knees. Leverage elbows downer against knees until the stretch is felt.

Low Back –Calf: Downward dog



On your back pull your left knee into your chest feeling the stretch in the upper hamstring/glutes. Hold, then keeping shoulders flat on floor pull leg towards floor/opposite shoulder until stretch is felt. Repeat on opposite leg.



Thigh/Quadricep

Kneeling with hands/arms on the ground, raise hips straight up, keeping toes and hands on the ground. While hips are raised, press arms into the floor, pushing the pelvis backward, which presses the heels of the feet into the floor. Lower hips back to starting position. Repeat 5-10 times.



While standing, hold on to something firm if needed. Pull the right ankle behind you then bend forward and open up the hip to stretch the thigh. Repeat on opposite leg.



Cycling Drill

#1

Freestyle Stroke Phases part 2 of 5

Cycling drills are designed to improve your pedaling efficiency by improving your neuromuscular engagement during each pedal stroke. Considering you pedal 4800 times every hour on each leg even just the smallest improvement can make a big difference in your energy consumption. The following drill should be incorporated into your training throughout the season emphasized more during the base and building phases of your training.

Slow Frequency Repetition (SFR) –

- Drill: Uphill reps at 40 - 50 rpm, HR at medium endurance or as indicated.
- Position: In the saddle, focusing on the working muscles, and maintaining a good pedal stroke.
- Time: Start with 1 min and increase by 30 seconds every week up to 4 - 5 minutes. Recover for 2-2.5 minutes.
- Reps: Start with 6 and build up to 10. Reps can be broken into 2 sets. Frequency: 1-3 times per week.

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.

Catch Phase: this portion of the stroke allows you to "catch" as much water as possible underneath the fully extended arm and hand. This phase begins with at the point at which the arm is fully extended. At this point flex the wrist slightly downward at the same time bend the elbow and bring the forearm and hand down in a sweeping manner towards the bottom of the pool. It is important to keep the elbow above the forearm. Picture yourself lying flat and having your forearm and hand wrapped over a barrel. This forearm and hand movement acts as the paddle in your stroke, so if they are positioned incorrectly you will sacrifice significant pulling power.

