

Importance of a Proper Bike Fit

A proper bike fit is essential for a triathlete to not only maximize performance on the bike and run but to also remain healthy and avoid injury as much as possible. In our experience the time and effort on the bike (for most athletes, approximately 50% of training and racing time) results in many injuries that are mistakenly attributed to running. Improper saddle position or cleat position for example, can easily cause IT band issues. Athletes getting off the bike with sore neck, back or shoulders will never be unable to run to their potential.

The importance of a proper bike fit cannot be over emphasized and it is something that is seldom mentioned or followed up on. Developmental athletes (Youth and Junior) should get two fits per year, this is critical if the athlete is still growing. We have included some fitting guidelines that we feel are important to follow. A fit for a triathlete should be different than a traditional cyclist. Triathletes experience different demands on the bike. The environment can be more demanding and of course, triathletes have to run off the bike, meaning we have different demands on our bodies than a traditional cyclist.

Triathlon Ontario works with two official bike fitting operations:

1) **[Flying Monkey Bike Shop](#) - 6 Main Street N, Campbellville ON L0P 1B0**

Dave at the Flying Monkey has done a number of fits for our provincial athletes. We have shared with him the bike fit 'philosophy' we follow and he has done a number of adjustments and fits along these lines. Dave uses a TREK bike fitting system. Triathlon Ontario members receive a 25% discount off of fits with Dave if they present a valid membership card.

2) **[BUSHTUKAH](#) 203 Richmond Rd, Ottawa ON K1Z 6W4**

Jesse at BUSHTUKAH has been doing the fits for the Bytown Storm for the past few years. BUSHTUKAH uses a RETUL system.

The system used is not that important- RETUL, TREK and SPECIALIZED all have developed computerized systems. The important part is the operator and how they view fitting and that it is consistent with the process you have and believe in.

We strongly urge everyone to arrange a proper bike fit either through a local professional shop or contact either Dave or Jesse. Included below are some points on some of the main points used during a fitting session.

REASONS FOR A PROPER BIKE FIT

A proper bike fit is not only to provide a comfortable ride but also to:

- Maximize power output through use of proper position and therefore the result should be better biomechanics and more efficient cycling
- Reduce stress on contact points (hands, seat, and pedals) and open up the respiratory system
- Reduce injury potential through over extension or restricted movement
- Increase distribution of workload through the pedal stroke
- A good fit should include analysis in different riding positions (hoods, drops, tops) at consistent power output to determine differences in overall alignment, foot movement and body sway

CLEAT PLACEMENT

Cleat placement is one of those areas where you may get a lot of different advice. With a ton of opinions offered, there are a couple significant points to consider. Traditional cyclist cleat placement is over the 1st MTP joint or "ball of the foot" or big toe joint. Is directly over the pedal axel. This creates two issues:

- 1) If you think of your foot as a "lever" (which it is) and the fulcrum of the foot is the ankle, then the further the cleat contact point is placed forward on the pedal, the longer the lever and less efficient the movement. This is more so when the rider has to create power (climbing or sprinting) as the ankle in most riders drops lower and the foot position become less on top of the pedal and more pushing into it - the foot is then not creating propulsion in as much as it is trying to maintain foot stability.
- 2) The further back the foot is on the pedal the shorter the lever, this creates less work load on the leg muscles as well as having the added benefit of dispersing the work load from mainly the quads to include glutes and hamstrings. This is important because we will never race without having to run off the bike and this distribution of work load allows us to be better prepared for a hard run after a hard bike.

The cleat placement should be further back on the foot, ideally the pedal axel should be placed under the 5th MTP i.e. placed over the toe joint of the baby toe.

ADDED NOTES

Keep in mind that most of you, especially developing athletes, will race much more aggressively than you train on the bike. When this happens body position on the bike tends to change. Riders



move forward on the seat, pull back on the handle bars etc. It is important to learn to relax while riding hard.

If you do have an injury history and work with a specific physiotherapist, it may be an advantage to get his/her assessment of any musculoskeletal issues. Or if you have had an FMS (Functional Movement Screen) or VMS (Variable Movement Screen) then these results can also be used to assist if you bring them along to your bike fit. A good bike fitter will have some basic knowledge of the musculoskeletal system and how the movements interact and be able work with those issues. The main thing to consider is that it be comfortable to ride - sore back, shoulders, knees or hips are NOT normal.

Once the bike fit is done, progress cautiously on the bike - increasing frequency, volume and intensity slowly until you become accustomed to the new position.