

# Choosing your Weapon

By David Greenfield

**Variables will exist in any repeated and recorded action/re-action situation. Thus, these opinions are based on learned consistencies observed through perceivably reliable testing. The following is not conclusive to all bicycle purchases, however it should represent the spectrum of needs for most on-road, active cyclists.**

# Choosing your Weapon

Road

Triathlon

Tweener

Place in Space

Choose a bike for today & tomorrow

# Road Bikes

With the exception of a point to point solo effort for time as found in a Triathlon or Time Trial a Road style configuration will consistently be the most advantageous for most on road active cycling activities.

**Best choice for an athlete who plans on...**

- 1) Road group riding, Charity rides, Touring (both organized and daily recreational), Centuries, or Leisurely fresh air chatty fun rides.
- 2) Purely for exercise purposes
- 3) Racing on the road EVER
- 4) Doing 1 maybe 2 Sprint to Olympic distance Triathlons, is NON-Competitive, & is willing to sacrifice Time, Efficiency, & Effectiveness for the sake of a more versatile frame design.

**WARNING:**

If road geometry frame is chosen...

**DO NOT ADD FULL SIZED CLIP - ON AERO BAR...**

# **DO NOT ADD FULL SIZED CLIP - ON AERO BAR(cont.)**

## **Because...**

- 1) Variably, adding a full sized aero bar to a road specific frame creates inherent inefficiencies & can greatly reduce the safety of that bicycle and rider both mechanically & physically.**
- 2) One cause of this diminished mechanical functionality is that it changes the distribution of the rider's weight in regards to the frame's intended design.**
- 3) Another factor is the added distance to the pads of the clip-ons from the increased top tube length found on most road bikes in comparison to the top tube length of a like sized triathlon bike. If a rider is even slightly stretched out in regards to where the rider's elbows rest (obtuse shoulder angle), it can adversely affect the stabilizers, supports, & the neurological muscular pattern of the upper neck, back & shoulders (rhomboids, trapezes, scapula, deltoids).**
- 4) Additionally, This unorthodox position can also hinder the back end of the human system by moving the rider's pelvic cradle out of a neutral spine position. This can lead to an unhealthy & potentially damaging relationship between the force partnerships muscles stabilizing the pelvic cradle. These inefficiencies deny the potential for a complete muscular engagement pattern throughout the entire kinetic system of the lower human body.**
- 5) Once again, DO NOT put full sized clip - on bars on a road specific frame as it will undoubtedly put the rider at an elevated risk of developing injuries & assuredly there will be a loss of control, handling, support, & comfort.**

# Triathlon Bikes

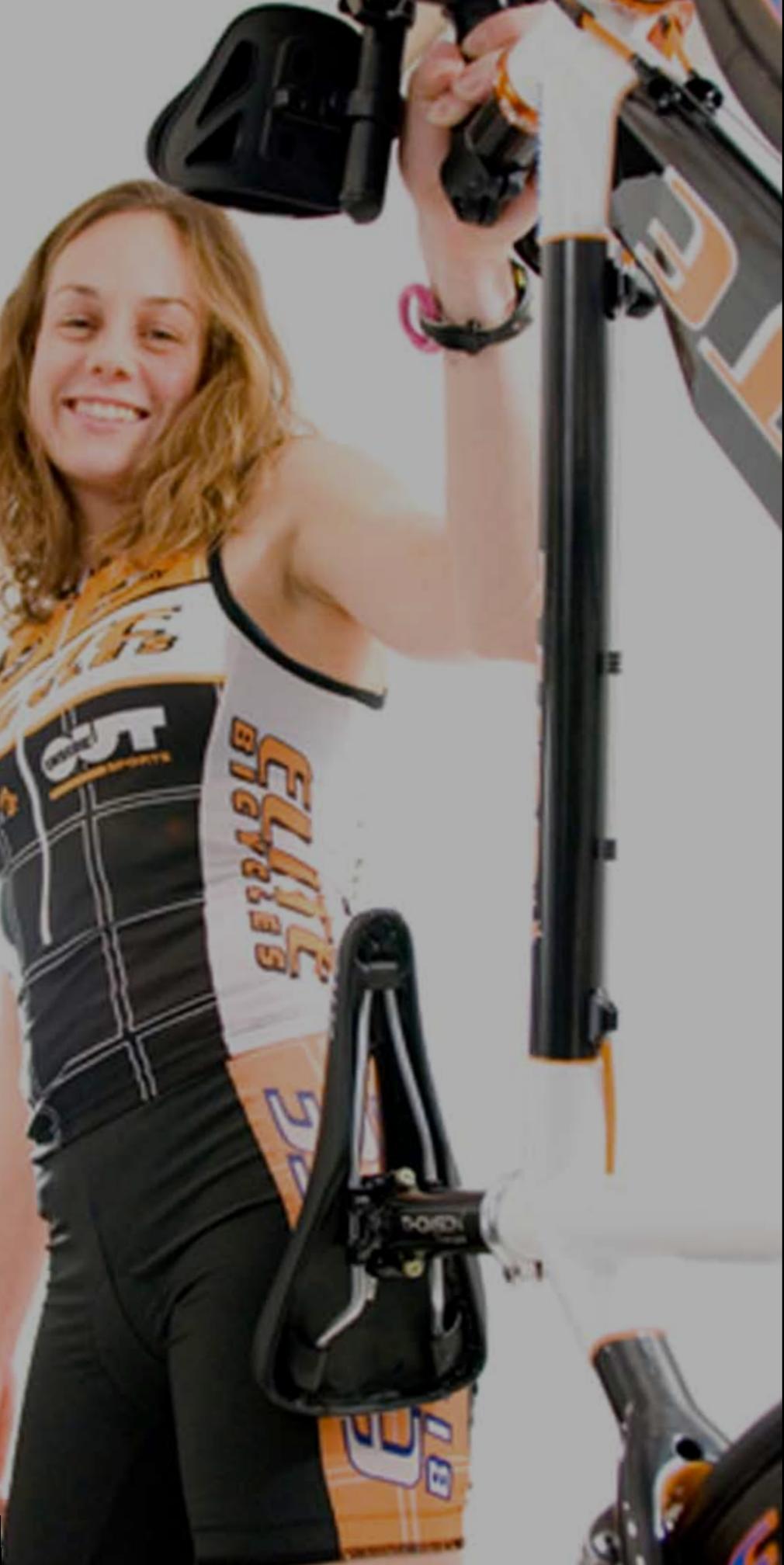
**Best choices for an athlete who plans on...**

- 1) Using the appropriate tool for triathlons & time trials.**
- 2) Competing in half & or full Ironman distance triathlons.**
- 3) Only riding with Triathlon groups, a partner, or training solo.**

**If the rider is properly positioned in space & the bicycle is proportionately built up under the rider, a triathlon specifically designed bicycle, in an aero position...**

- (1) Will allow for the most efficient solo effort position possible.**
- (2) Is the safest management of weight distribution, control, handling, stability, & comfort.**
- (3) Will create the most productive & natural position to transfer to the run from an "Aero Position".**
- (4) Allows the athlete to follow functional movement & the intelligent design of the human animal in an aero position.**

**\*Please remember, for every one (1) second an athlete is out of the full aero position they can potentially lose two (2) seconds.**



# Tweener Bikes

As stated earlier, a road specific frame with an aero bar will NEVER be an effective, efficient, or safe for triathlon use. However, a bicycle frame designed with a triathlon specific geometry can become an effective road bike so....

**1) A TWEENER BIKE MUST START FROM A TRI OR TWEENER SPECIFIC FRAME GEOMETRY.**

**2) If positioned correctly a Tweener can be an effective tool for multiple applications & will possess most of the complements of both the Triathlon & Road bicycle worlds. However, even if built, spec'd, & fit to absolute perfection, there will still be some performance maximization losses in ALL CATEGORIES.**

**3) Proper Tweener positioning can be challenging for even a Master fitter, so please make sure you are completely confident in the skill set & judgment of the fitter you choose to take on this challenge.**

**\*On a side note, there is a brand new drop bar on the market that is helping to address some of the inherent issues in the spec of a Tweener bike. My early assessments have been very good & should help to minimize some performance losses.**

# Place in Space

Get Fit...

**Can your fitter intelligently justify and defend the autonomy of the protocol they have in use? Or is it simply the regurgitation of an antiquated set of numerical ranges, which carry unavoidable flaws?**

# Place in Space

Does your fitter provide a thorough interview including...

- ...Physical
- ...Medical
- ...Sporting
- ...Lifestyle history

...?

# Place in Space

Does your fitter perform Repeatable, Reliable, and Recordable tests of...

- ...Body measurements
- ...Flexibility
- ...Range of motion
- ...Proprioception
- ...Functional movement
- ...Torsion
- ...Physical verses physiological discrepancies
- ...Muscular engagement proficiency
- ...Pelvic obliquities
- ...The complex human foot

...?

# Place in Space

Does your fitter have the aptitude and knowledge to build you a supportive foot bed that...

- ...Supports the medial longitudinal & the metatarsal arch of the foot
- ...Supports any forefoot Varus or Valgus
- ...Creates Talonavicular congruency
- ...Neutralizes the motion of the subtalar joint through Talocalcaneal congruency
- ...Can create a sulcus advantage
- ...Build a neutral & ideal platform to start a the fit

...?

# Place in Space

Does your fitter recognize and actively address saddle issues by...

...Physically measuring your pelvic supports

...Patiently testing a myriad of saddle shapes and types

...Allowing you road mile testing and a return policy until you find the perfect saddle

...?

# Place in Space

Does the fitter use this learned information to help you...

- ...Create a natural spin environment on the bicycle
- ...Proportionally distribute your physical body weight and effective pressure points
- ...Consider your center of gravity in a performance based position
- ...Create congruency with your body's natural and lifestyle-developed movement
- ...Maximize your kinetic ability to enable and sustain a faster pace with an increased comfort level
- ...Set you with a protective saddle height, drop, and reach, supporting your body skeletally apposed to muscularly

...?

# Place in Space

Is there an element of pre-hab?

Does your fitter give you instruction and guidance how to maintain & habilitate your physical abilities?

...Stretches and strengthening techniques to advance muscular patterns that are currently inefficient or adversely affecting performance

...Techniques to help create balanced muscular force partnership throughout the entire human and each individual muscular system

...Techniques to establish a vestibular dominant environment of proprioception

...Techniques to help maintain pelvic neutrality

...Techniques to maximize cycling efficiency and safety in your newfound biomechanical position

...?

# Choose a bike for today & tomorrow

It is very important that you not only select the correct style of bicycle that will maximize, control, balance, & efficacy in your specific applied application needs. But you also pick a bicycle that can safely, proportionately & mechanically support both where you need to be today & where you may need to be biomechanically positioned some time down the road:

- ...Rider changes to longer or shorter distance events
- ...Rider changes cycling interest
- ...Cycling and non-cycling related injuries
- ...Rider becomes pregnant
- ...Natural human degeneration
- ...Rider is actively increasing their proficiency and fitness



# Thank You

Thank you for your time & consideration of my presentation, Please feel free to contact me directly [david@elitebicycles.com](mailto:david@elitebicycles.com) with any additional questions or comments you may have. Also please feel free to visit our web site <http://www.elitebicycles.com> to read additional information, explanation, & justifications of the opinions stated.

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