

ANUBHAV KARMAKAR



# ATHLOPEDIA

# CYCLING BIOMECHANICS

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# TOPICS

Goals

Bike Geometry & Race Distance

Rider Profile

Road Bike Fit

Tri Bike Fit

Adjustments

# BIKE FIT GOALS

## Optimize

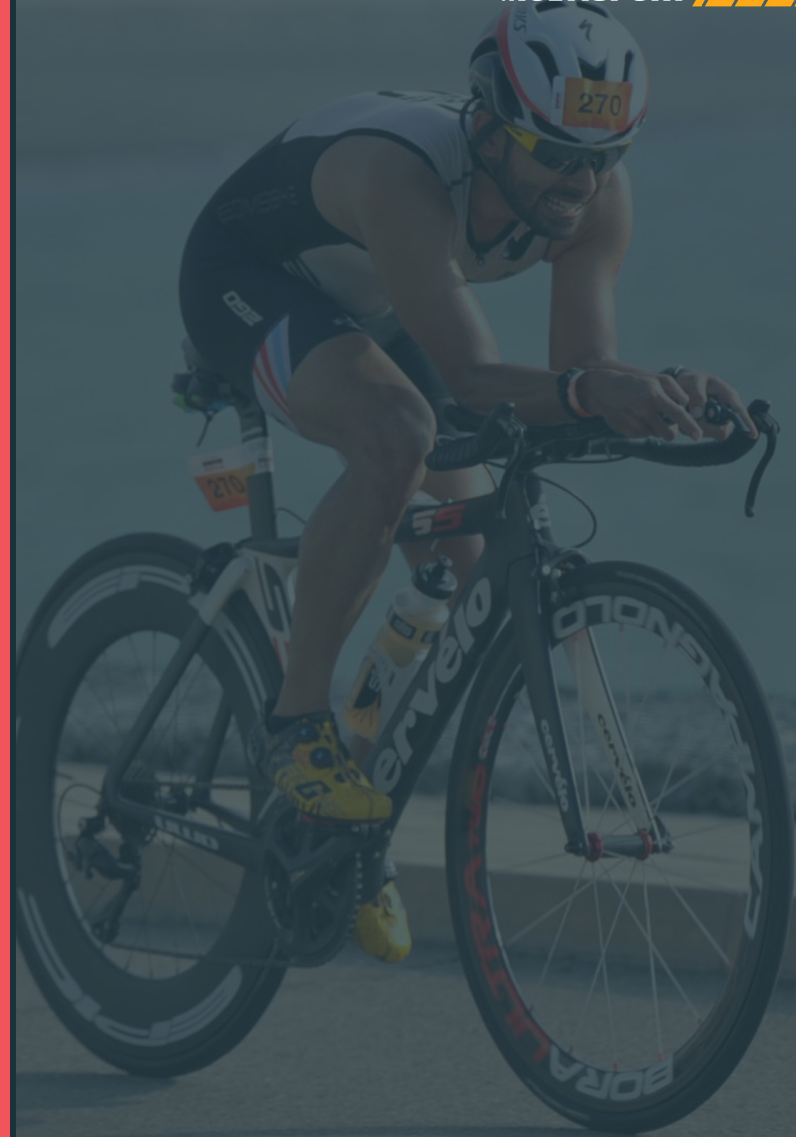
Aerodynamics



Comfort

Power  
Output

**athloft**   
MULTISPORT >>>







# BIKE GEOMETRY



*ENDURANCE ROAD*



*AERO ROAD RACE*



*CLIP-ON AERO BARS*

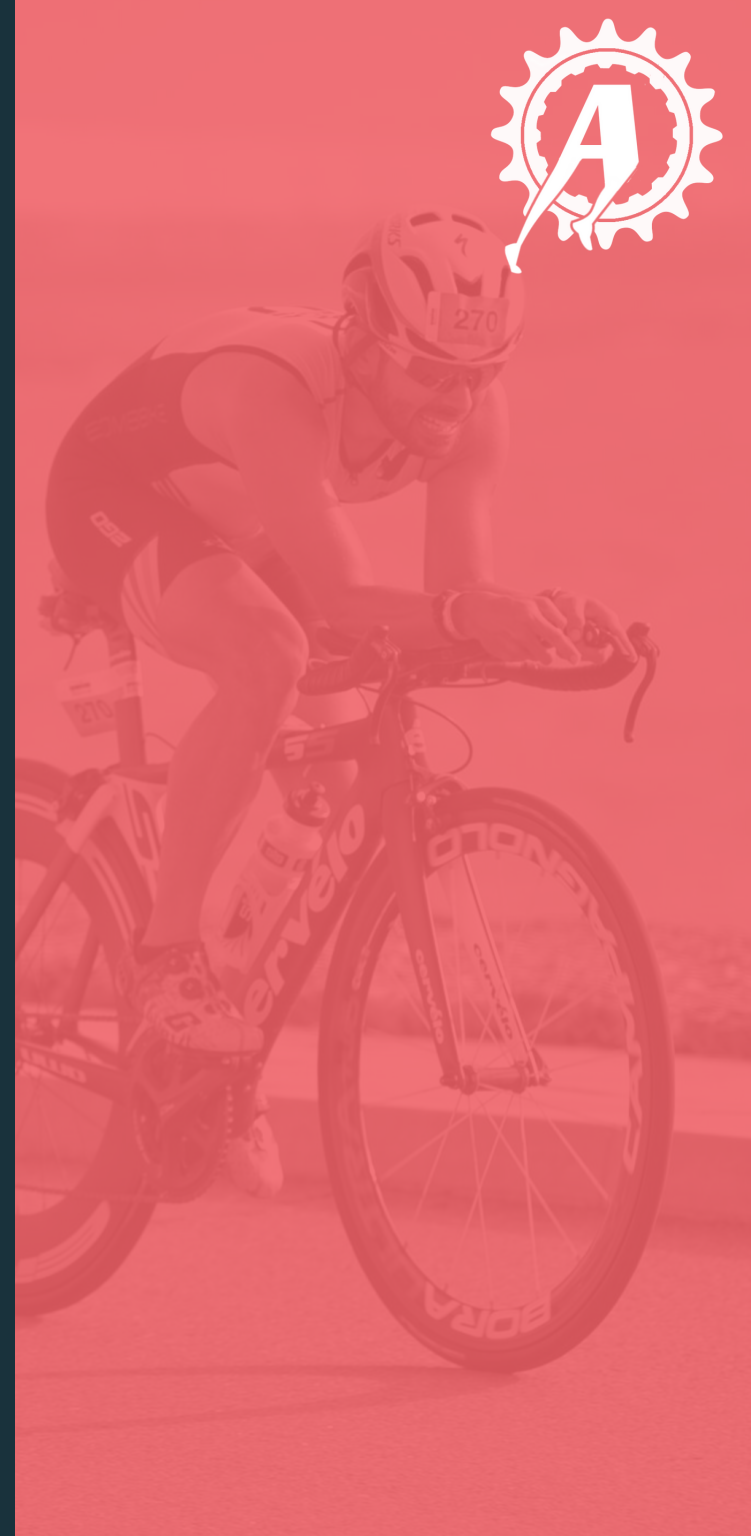


*TRIATHLON*

# RIDER PROFILE

Strength & Flexibility  
e.g. Hamstring Flexibility  
Core Strength  
Pelvic Tilt

Bike Handling Skills



# ROAD BIKE FIT

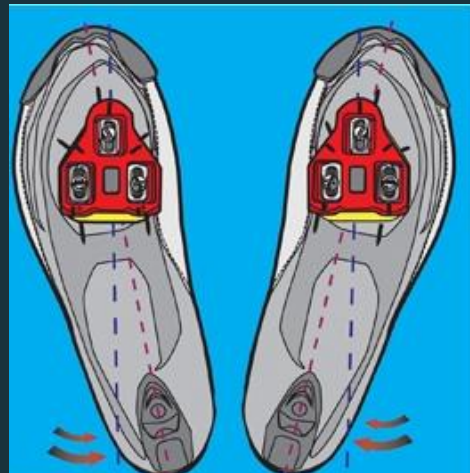
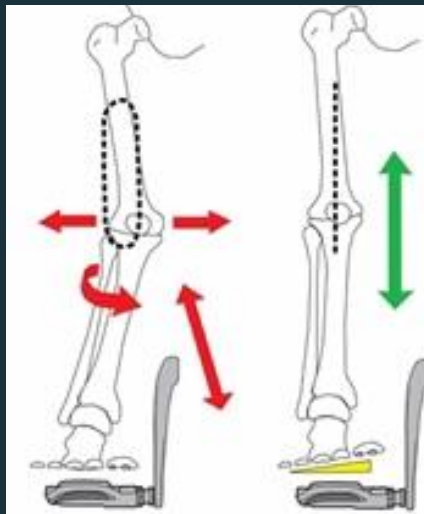
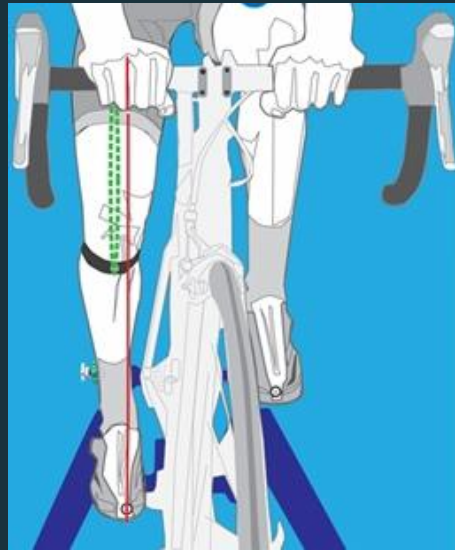
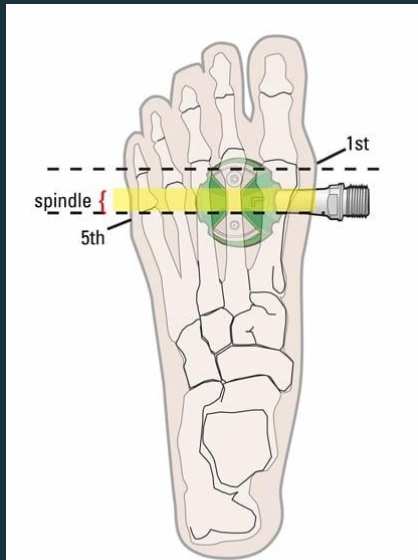
Body Contact Points





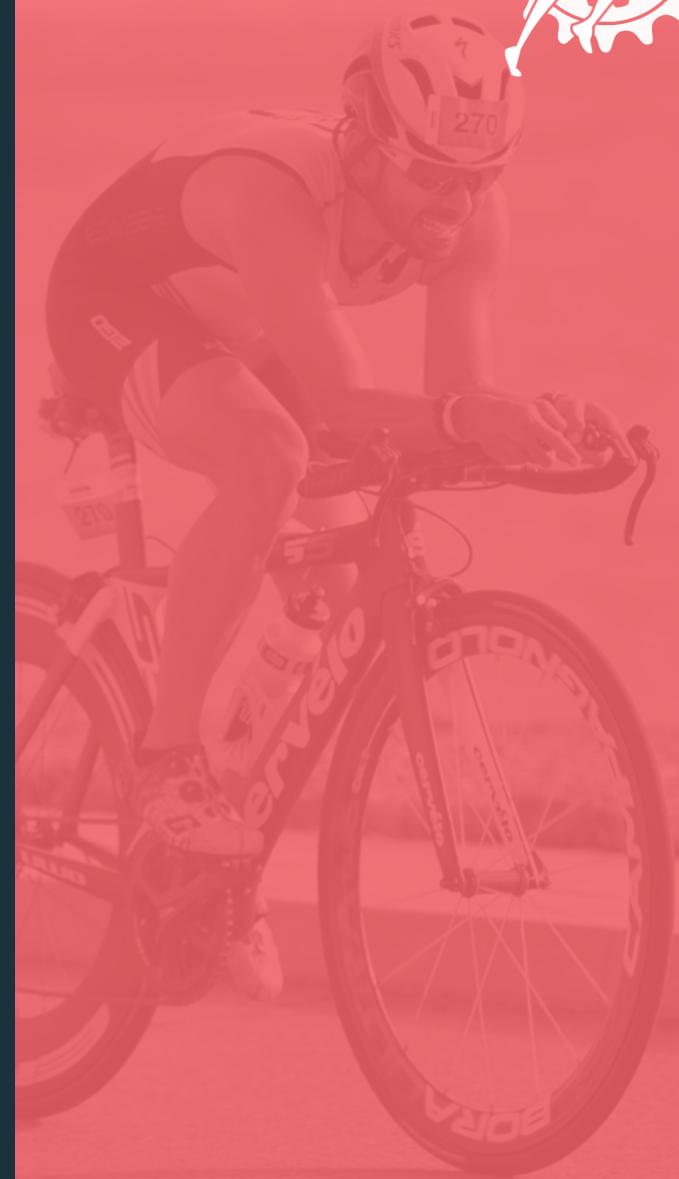
# ROAD BIKE FIT

## The Foot/Pedal Connection



# ROAD BIKE FIT

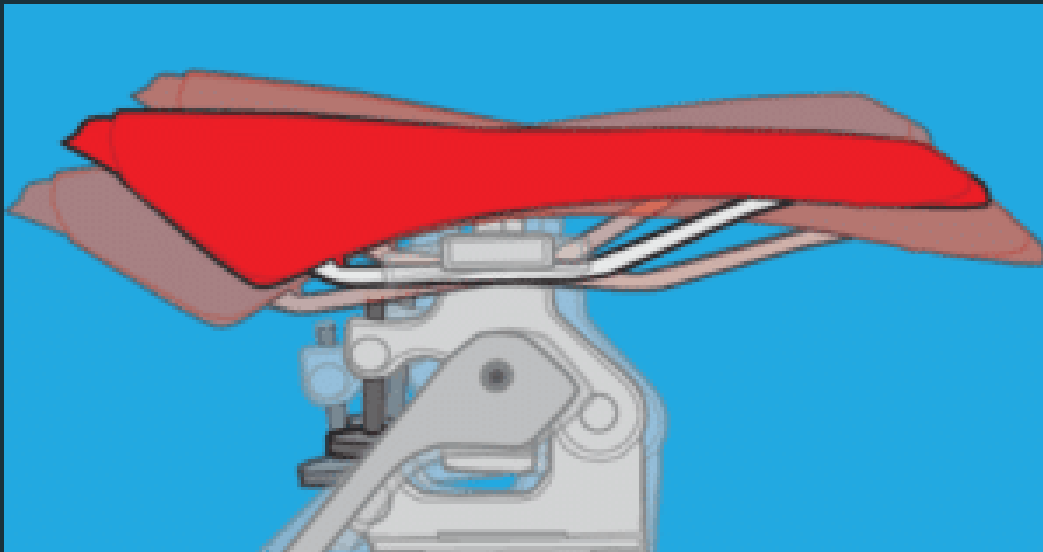
## Saddle Selection





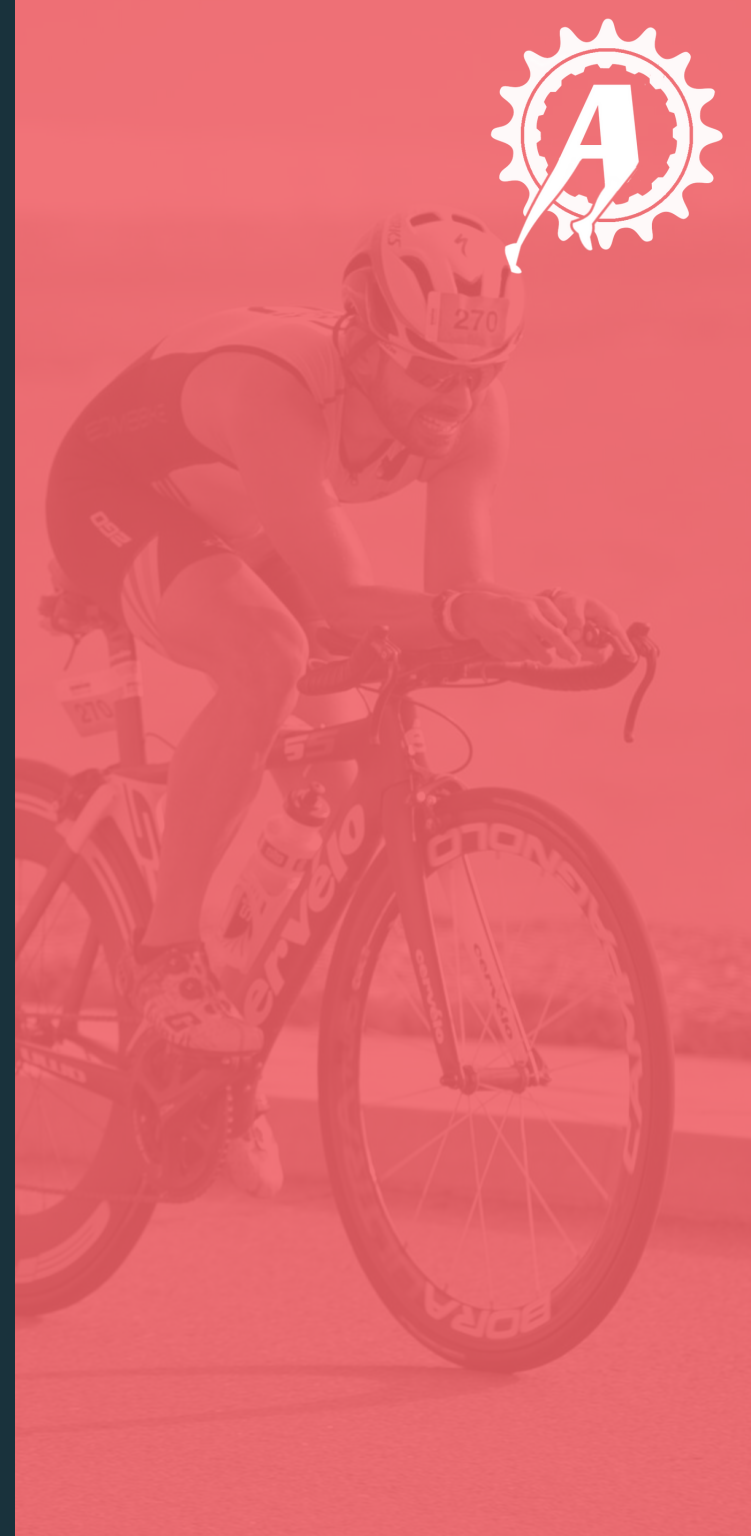
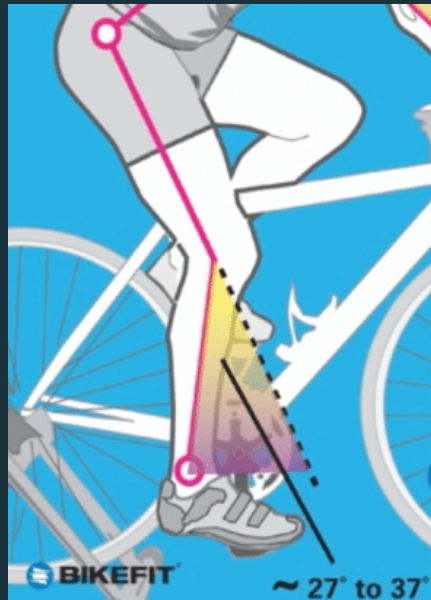
# ROAD BIKE FIT

## Saddle Tilt



# ROAD BIKE FIT

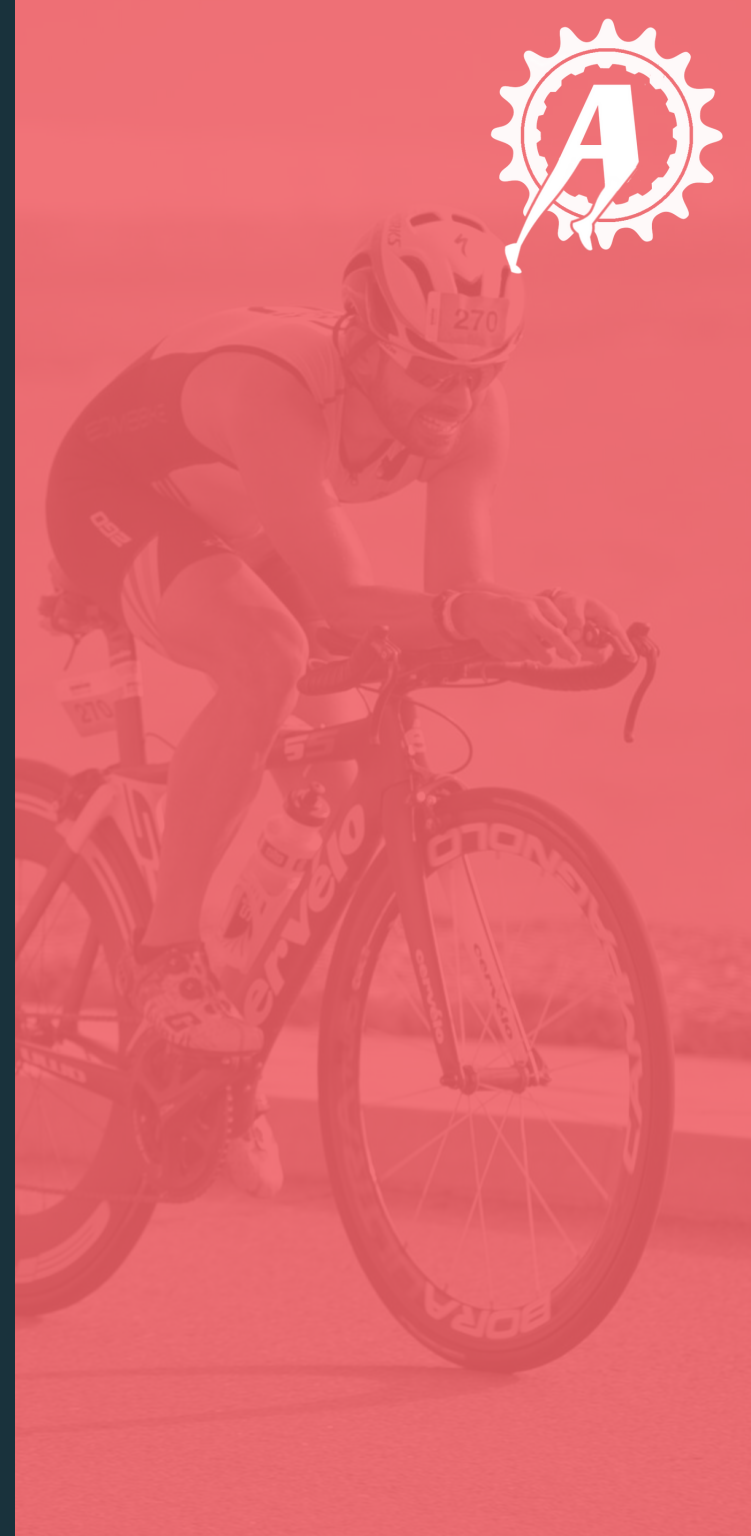
## Saddle Height





# ROAD BIKE FIT

Saddle Fore / Aft

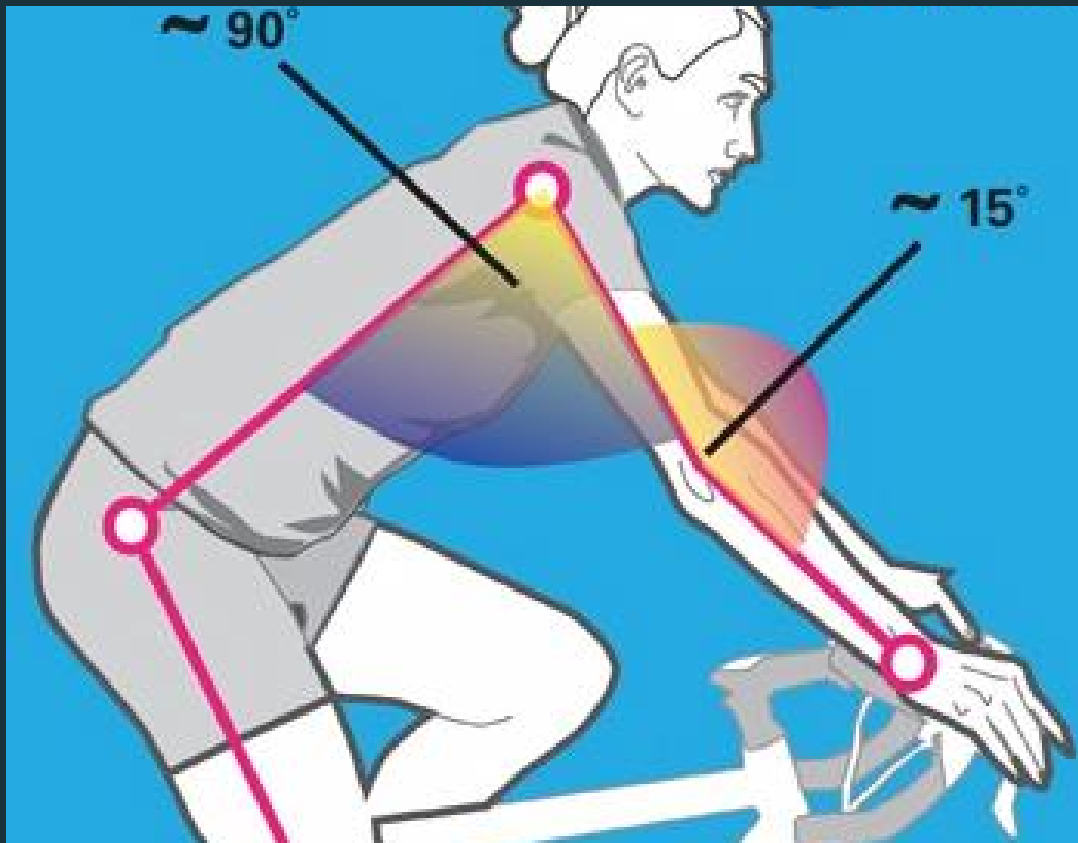






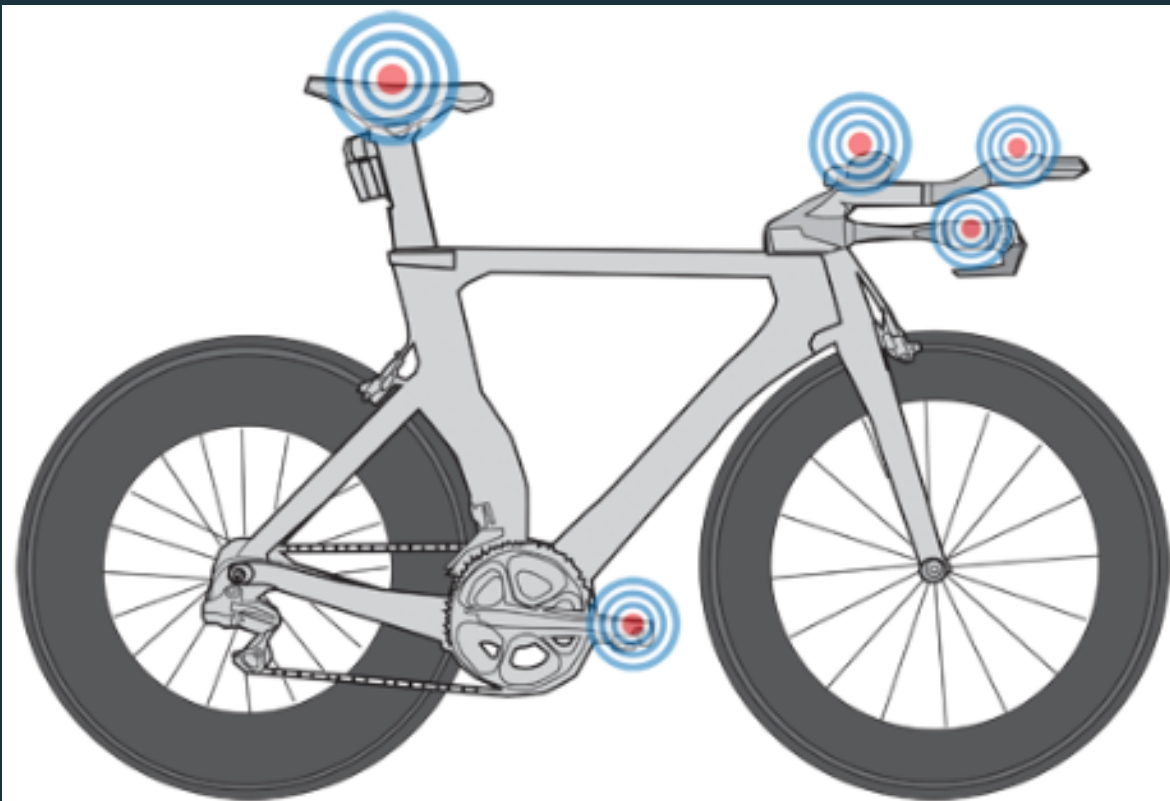
# ROAD BIKE FIT

## Handle Bar Adjustments



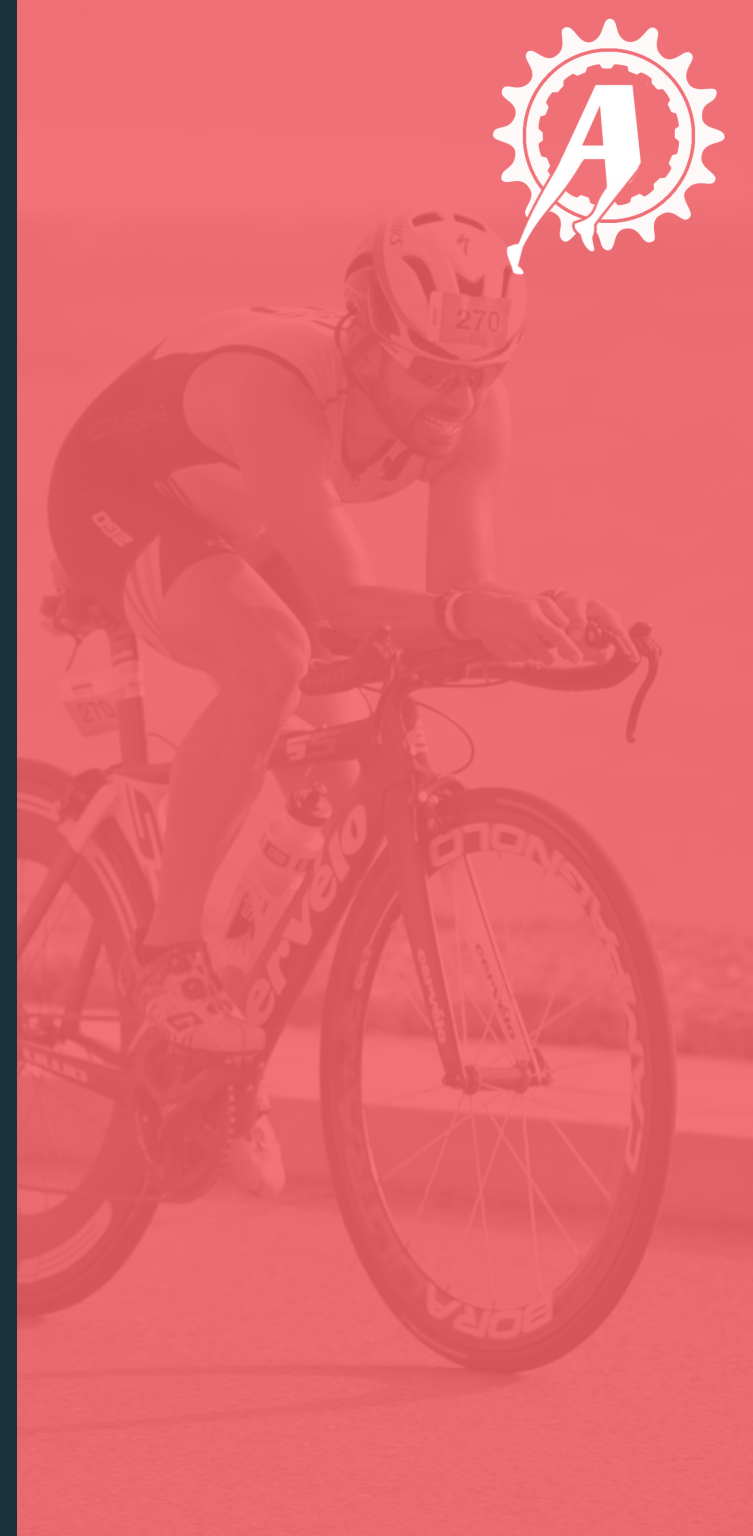
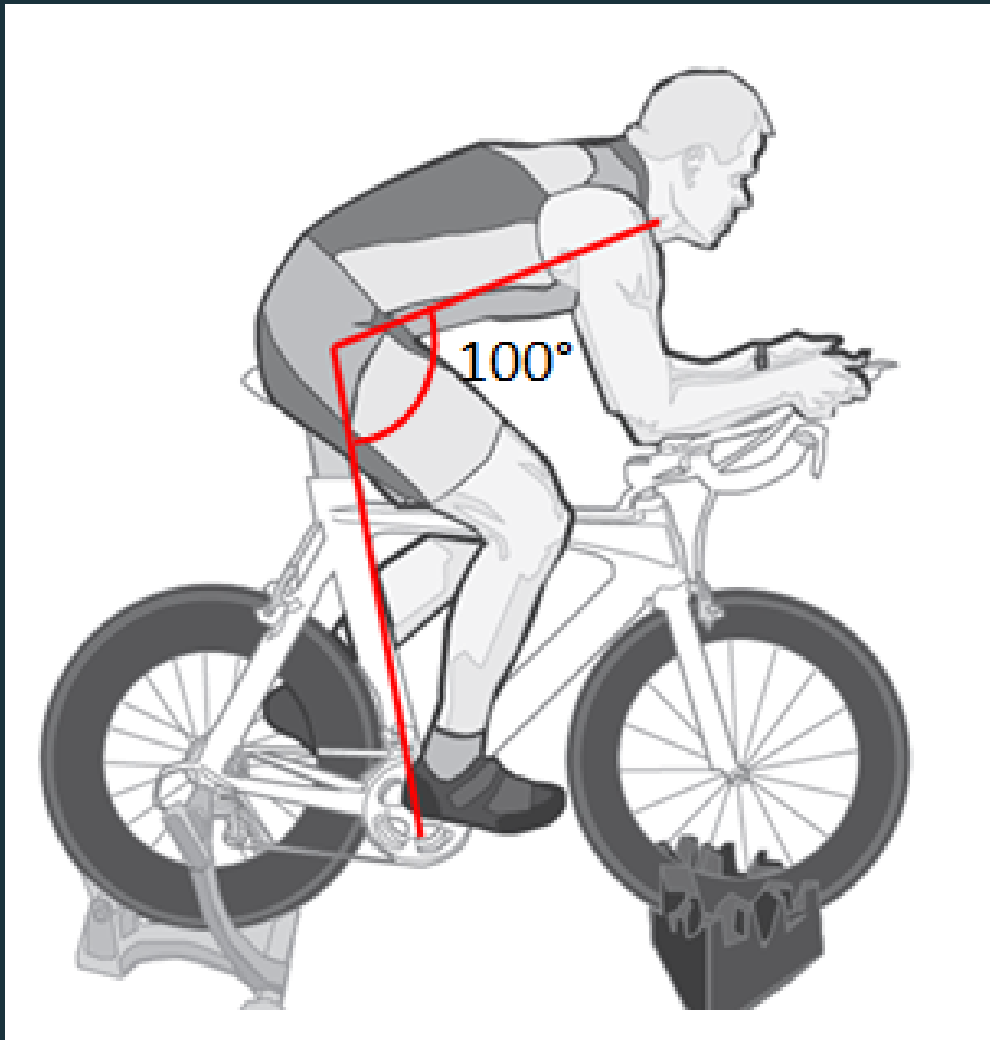
# TRI BIKE FIT

Body Contact Points



# TRI BIKE FIT

Hip & Shoulder Angle





# TRI BIKE FIT

Frontal





## PAIN AREA

## ADJUSTMENT

Front of Knee	Saddle ↑ & ← (backward)
Back of Knee	Saddle ↓ & maybe → (forward)
Outside of Knee (lateral)	Foot out or away ↔ (cleat in)
Inside of Knee (medial)	Foot in or closer ↔ (cleat out)
Achilles	Foot forward (cleat back)
Pressure on bottom/outside of foot	Wedge to the inside (varus wedge)
Saddle - front & center	Bars ↑ &/or tip of saddle ↓ <i>or incorrect saddle fit</i>



# THANK YOU!



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