

Assistant Professor in Residence Sports Medicine & Shoulder Surgery UCSF Department of Orthopaedic Surgery

Sports Medicine

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Seat I	Height Methods ⁴	
Method	Description	AR
Hamley and Thomas ⁵	Height set at 109% of inseam leg measurementProduce longer time to exhaustion	
Trochanteric Length ⁶	 100% of length of greater trochanter to floor Cycling economy better at 96% of 100% relative to 104% 	
Ischial Tuberosity ⁸	• 113% of length of ischial tuberosity to the floor	
LeMond ⁷	• 88.3% of distance from top of saddle and center of bottom bracket	
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Method	Description	
Heel ⁷	• When seated on saddle, knee fully straight with heel on pedal	
Holmes ⁹	 Knee flexion angle at 6 o'clock set to 25-30 degrees 25 degrees has lower VO2 compared to 35 degrees or 109% inseam 	
Howard ⁷	• Knee flexion angle at 6 o'clock of 30 degrees with neutral foot	















Strategies to Treat PF Syndrome

- Quadriceps strengthening
 - Especially focus on VMO
- Stretching
 - Quadriceps
 - Hamstrings
 - · Gastrocnemius-soleus
- Patellofemoral brace or McConnell taping
- Foot orthoses to adjust foot pronation and hindfoot alignment



Sports Medicine Image: https://www.physioadvisor.com.au/wpcontent/uploads/20193256300x300.jpg UCSF Medical Center























[Physical Therapy] Relationship Between Body Positioning, Muscle Activity, and Spinal Kinematics in Cyclists With and Without Low Back Pain: A Systematic Review Gabriel M. Streisfeld, DPT,*[†] Caitlin Bartoszek, DPT,[†] Emily Creran, DPT,[†] Brianna Inge, DPT,[†] Marc D. McShane, DPT,[†] and Therese Johnston, PT, PhD, MBA[†] Subjects with low back pain showed: · Fatigue in arm muscles and postural spine musculature · Reduced abdominal and back muscle thickness at rest and during contraction · Greater lumbopelvic flexion Position and pain may be improved with biofeedback training UCSF Medical Center **UCSF** Health UCSF Benioff Children's Hospitals Sports Medicine



Treatment Recommendations for Low Back Pain

- Core strengthening exercises
- Biofeedback training for positioning of spine/pelvis
- Consider changing saddle tilt

















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