Objectives - Clinical Level 1

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Biomechanics of Cycling, Bike Fit Skills & Physical Therapy Interventions

Eastside Sports Rehabilitation Clinics, Kirkland, WA

The fundamental goal of this class is to further the understanding of normal and pathological movement patterns of cycling. As physical therapists, we tell patients to "ride a bike to get some exercise and take pressure off your joints." However, that may not be as simple as it sounds.
As humans, we are asymmetrical creatures. Yet, we place ourselves and our patients on very symmetrical bicycles. Thus, the dilemma from the least experienced cyclist to the most advanced racer.

Therefore, the objectives of this class include but are not exclusive to:

1) Understand the basic biomechanics of cycling (static and dynamic assessment).

2) Identify patterns of motion that indicate inefficiency and potential pathology.

3) Identify and Associate the significance of physical therapy testing (manual, static, dynamic) procedures to cycling biomechanics.

4) Bike Fit Skills: Learn how to alter the bike to better accommodate the patient's biomechanical needs, including stem length/angle, seat height, seat fore-aft and handle bar position.

5) Identify specific foot types and unique LE architecture and their implications in cycling biomechanics.

6) Bike Fit Skills: Learn how to address the foot/pedal interface to accommodate the patient's biomechanical needs, including fore-aft, rotation, medial-lateral and canting of the foot.

7) Discuss the role and relevance of OTC inserts & custom orthotics for cyclists.

8) Discussion of the triathlete position versus the "comfort position" and it's relevance in performance.

9) Building a relationship with a local bike shop.

We hope you enjoy this class as much as we enjoy teaching it.

Happy Pedals!
Kit & Paul

(Objectives are subject to change according to alterations within the curriculum.)

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