








ITBS Exercise Prescription

Exercise	Purpose	Description	Cues	Compensations
<p>Side-lying Hip Abduction^{1,2}</p> 	<p>Strengthen the hip abductor muscles (GMed)</p>	<p>Pt positioned in side-lying, with the bottom leg bent to increase stability. Keep the top leg in knee extension and slowly raise it up towards the sky and then lower it back down.</p>	<ul style="list-style-type: none"> • Keep the trunk in line with legs; do not let hips roll forward or backward. • Do not arch the back • Want to feel this exercise in the posterior-lateral hip musculature 	<p>Rotating the entire trunk Bringing leg forward into hip flexion rather than keeping it in line with the hip</p>
<p style="text-align: center;"><u>Regression:</u></p> <p>Seated Hip Abduction (if the pt is unable to perform the exercise in side-lying due to contralateral hip pathology)</p> <p>Sit in a chair with both feet touching the floor. Move both legs outward in a direction parallel to the floor, and then bring them back in while maintaining feet to ground contact. Maintain upright posture throughout exercise.</p> <ul style="list-style-type: none"> • <u>Progress:</u> Add a looped resistance band around distal thighs. Increase resistance as appropriate. 			<p style="text-align: center;"><u>Progression(s):</u></p> <p>Standing Hip Abduction (If the pt is able to perform the exercise is weight-bearing)</p> <p>Stand next to a chair or counter for balance and support. Raise the leg, contralateral to the side that the chair is on, while keeping the knee in extension and then lower it back down. Remain upright and do not lean laterally over the stationary leg so that the GMed can work effectively.</p> <ul style="list-style-type: none"> • <u>Progress:</u> Add ankle weight to the moving leg or a looped resistance band around both ankles. Increase resistance/load as appropriate. 	

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<p>Side-lying Hip External Rotation^{1,2}</p> 	<p>Strengthen the hip abductor and hip extensor muscles (GMed & GMax)</p>	<p>Pt positioned in side-lying with both knees bent and the hips flexed to 60°. While keeping the feet together, raise the top leg by bringing the knee to the sky and then lower it back down.</p>	<ul style="list-style-type: none"> Keep hips in line with one another (Do not let the pelvis roll posteriorly) 	<p>Pelvis may roll back while performing hip external rotation as patients think they are gaining more range.</p>
<p><u>Regression:</u></p> <p>Supine Hip External Rotation (if the pt is unable to perform hip external rotation strengthening in side-lying/ against gravity)</p> <p>Pt lying supine with knees bent and feet flat on the surface (start position). Bring the knees apart while keeping the feet in contact with one another, and then bring the legs back together to the start position.</p>  <ul style="list-style-type: none"> <u>Progress:</u> Add a looped resistance band around distal thighs. Increase resistance as appropriate. 			<p><u>Progression(s):</u></p> <p>Side-lying Hip External Rotation w/ resistance</p> <ul style="list-style-type: none"> Add a looped resistance band around the distal thighs. Increase the level of resistance as needed. <p>Side-lying Hip Internal rotation</p> <p>Pt side-lying with legs stacked and both knees bent (start position). Keeping the knees together, pt will lift the top ankle up as high as possible and bring it back down to the start position.</p>  <ul style="list-style-type: none"> <u>Progress:</u> Add a looped resistance band around the ankles. Increase resistance as appropriate 	

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<p>Lunge^{2, 3}</p> 	<p>Strengthen gluteal muscles, quadriceps, and hamstring muscles.</p> <p>Improve dynamic balance</p> <p>Challenge hip, knee, ankle stability, and core</p>	<p>Begin by standing with feet shoulder width apart. Then take a large step forward with 1 foot, flexing both the forward and backward knees. The forward knee should be directly above the ankle in a vertical line (to prevent knee valgus or varus stress). The push off with the leg that is forward to return to the start position. Maintain upright posture throughout.</p>	<ul style="list-style-type: none"> • Do not bend forward at the hips. • Maintain upright posture. • Do not let the knee go past the toes. 	<p>Knee goes too far forward, past the ankle, increasing strain on knee</p> <p>Pt may lean forward and use their body to bring their leg back to the start position, which works the LEs less.</p>

Regression:

Split Squat (if a traditional lunge is too difficult)

In standing, take a large step forward with 1 leg (start position). Drop the knee of the posterior leg down to end in a lunge position. Don't let the opposite knee go past the toes. Then return to the start position.



Progression(s):

Reverse Lunge to Knee Drive (improves strength, dynamic balance, coordination, and control)

Perform a reverse lunge, by taking a step back and assuming a lunge position. Then quickly drive the same knee of the moving leg up into a running position and hold here for a few seconds. Then bring the leg back to assume a reverse lunge position (start position). Maintain a neutral spine throughout.



References:

1. Bishop BN, Greenstein J, Etnoyer-Slaski JL, Sterling H, Topp R. Electromyographic Analysis of Gluteus Maximus, <http://buffalorehab.com/blog/3-ways-bad-posture-hurting-shoulder/>Gluteus Medius, and Tensor Fascia Latae During Therapeutic Exercises With and Without Elastic Resistance. *Int J Sports Phys Ther.* 2018;13(4):668-675.
2. Reiman MP, Bolgla LA, Loudon JK. A literature review of studies evaluating gluteus maximus and gluteus medius activation during rehabilitation exercises. *Physiother Theory Pract.* 2012;28(4):257-268. doi:10.3109/09593985.2011.604981
3. Jahanshahi M, Nasermelli MH, Baker RL, Rabiei P, Moen M, Fredericson M. Comparing Functional Motor Control Exercises With Therapeutic Exercise in Wrestlers With Iliotibial Band Syndrome. *J Sport Rehabil.* 2022;31(8):1006-1015. Published 2022 Jun 25. doi:10.1123/jsr.2020-0541

Images:

- HEP2go - Build a HEP < Home Exercise Program> For Free. Accessed April 8, 2023. https://www.hep2go.com/exercise_editor.php?exId=49444&userRef=gciaake
- Reverse Lunges To Knee Hops Home Exercise Guidance. Lunges To Knee Drive Young Woman Does Fitness. Stock Vector - Illustration of girl, physical: 233236027. Accessed April 9, 2023. <https://www.dreamstime.com/reverse-lunges-to-knee-hops-home-exercise-guidance-lunges-to-knee-drive-young-woman-does-fitness-reverse-lunges-to-knee-hops-home-image233236027>