

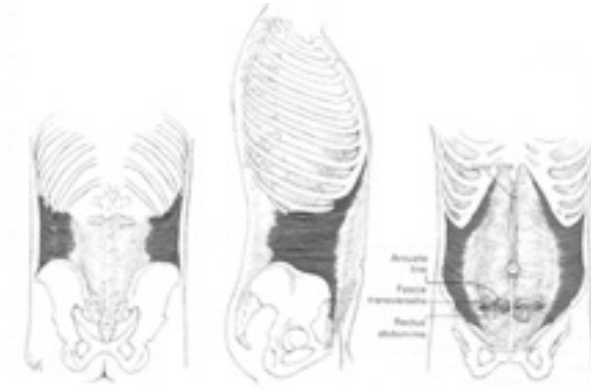


PELTONIA

CYCLING CORE STABILITY EXERCISES

OSU sports medicine is not responsible for any injuries incurred while performing these exercises. If you are unsure if you are a candidate for these exercises please consult with your physician first.

TRANSVERSE ABDOMINIS (muscle highlighted in red) serves as a “corset like” muscle thus increasing stability of the spine and in turn stability on the bike. Increased stability on the bike results in more efficient riding. This first progression is aimed at targeting this muscle group from the beginner exercises to more advanced and challenging exercises.



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TRANSVERSE ABDOMINIS SERIES

UPPER EXTREMITY



1. Begin by lying on your back, knees bent up to 90 degrees with arms lying flat on the ground.
2. Activate your core by drawing your abdominals in towards your belly button and pressing your back flat on the ground (You should not just pull your stomach in).
3. Maintain your back flat against the ground while bringing one arm up and overhead until it is flat on the ground above your head.
4. Return that arm to the starting position and alternate with the other arm the same way while keeping your core engaged and back pressed into the floor.



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CYCLING CORE STABILITY EXERCISES CONT'D

LOWER EXTREMITY: MARCHING



1. Begin by lying on your back, knees bent up to 90 degrees with arms lying flat on the ground.
2. Activate your core by drawing your abdominals in towards your belly button and pressing your back flat on the ground (You should not just pull your stomach in).

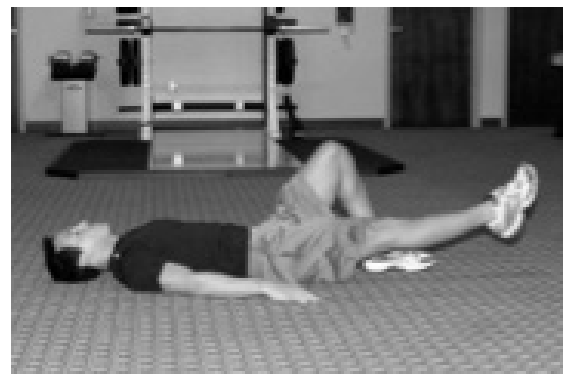


3. Flex hip and knee to 90 degrees.
4. Replace foot on the ground.
5. Repeat and alternate with the other side.

LOWER EXTREMITY: STRAIGHT LEG RAISE



1. Begin by lying on your back, knees bent up to 90 degrees with arms lying flat on the ground.
2. Activate your core by drawing your abdominals in towards your belly button and pressing your back flat on the ground (You should not just pull your stomach in).



3. Slide heel out to straighten leg, perform straight leg raise to height of opposite knee all while keeping your back pressed into the floor.
4. Replace foot on the ground and slide heel back toward buttock.
5. Repeat and alternate with the other side.



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CYCLING CORE STABILITY EXERCISES CONT'D

LOWER EXTREMITY: ADVANCED



1. Begin by lying on your back, knees bent up to 90 degrees with arms lying flat on the ground.
2. Activate your core by drawing your abdominals in towards your belly button and pressing your back flat on the ground (You should not just pull your stomach in).
3. Slide heel out and straighten leg, perform a straight leg raise to height of opposite knee, then flex hip and knee to 90 degrees, all while keeping your back pressed into the floor.
4. Replace foot on the ground.
5. Repeat and alternate with the other side.

LOWER EXTREMITY: BICYCLE



1. Begin by lying on your back, knees bent up to 90 degrees with arms lying flat on the ground.
2. Raise both feet into the air 6-8 inches from the ground.
3. Alternate one hip flexing up and the other leg extended as if you were pedaling a bicycle.
4. Remember to keep your lower back pressed into the floor throughout the exercise.



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CYCLING CORE STABILITY EXERCISES

ELBOW PLANK PROGRESSION Improves stability and efficiency on the bike by improving core strength and endurance. This exercise can be started on knees, then progress to up on toes, and then progress to reaching out with one arm, and finally opposite arm and leg. These exercises can be very challenging so start easy and progress over a period of weeks. You should not experience any joint pain during or after these exercises. If you experience any joint pain stop performing these exercises immediately. Things to watch out for include hips sagging too low, excessive shaking, and hips up too high. If you are doing this then try the previous easier plank progression.

ELBOW PLANK PROGRESSION SERIES



1. On all fours with weight evenly distributed across four contact points (elbows and feet) at the start of exercise.
2. Activate core and maintain a straight trunk position.



3. Reach with one arm forward slowly while trying not to lose balance/rotate trunk.
4. Alternate sides or complete a same side series.

*This exercise is very challenging



1. Lie on one side with feet together, elbow directly under shoulder on the ground and hand grabbing opposite side shoulder.
2. Activate core and maintain a straight trunk position, do not allow lower leg or hips to fall/touch ground.



3. Abduct (reach out) with one leg while trying not to lose balance/rotate trunk.
4. Alternate sides or complete a same side series.
5. Final progression is completing same side arm/leg reach while maintaining trunk control without losing balance/rotating trunk.



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CYCLING CORE STABILITY EXERCISES

SIDE PLANK PROGRESSION SERIES

For lateral strength and endurance



1. Lie on one side with feet together, elbow directly under shoulder on the ground and hand grabbing opposite side shoulder.
2. Activate core and maintain a straight trunk position, do not allow lower leg or hips to fall/touch ground.



3. Reach with one arm overhead slowly while trying not to lose balance/rotate trunk.
4. Alternate sides or complete a same side series.

*This exercise is very challenging



1. Lie on one side with feet together, elbow directly under shoulder on the ground and hand grabbing opposite side shoulder.
2. Activate core and maintain a straight trunk position, do not allow lower leg or hips to fall/touch ground.



3. Abduct (reach out) with one leg while trying not to lose balance/rotate trunk.
4. Alternate sides or complete a same side series.
5. Final progression is completing same side arm/leg reach while maintaining trunk control without losing balance/rotating trunk.

With questions, you can contact Kathy Kruppen, Katherine.Kruppen@osumc.edu, who is on the OSU Endurance Medicine Team.