

Core Strength Exercises

A note regarding core strength movements:

Core strength refers to the muscular, skeletal structures, and connective tissues found between mid-chest to knee level. Training this region of the body builds a strong foundation, increasing mechanical efficiency and improving force production through the appendages (arms and legs). Possessing a strong core also contributes to decreased risk of injury. Each exercise should be executed in a specific manner. Engage the abdominals first and then complete the rest of the movement as described.

Correct execution of a core strength movement through a full range of motion occurs in the following order:

1. Activation of the abdominals.
2. Curl the upper body off the ground (top left).
3. Pull the lower back off the ground (top right, bottom left).
4. When returning to the start position, the lower back should be the first to touch the ground. Avoid excessive lordosis - "snapping" the lumbar spine into an arched position.



4-Way Holds

With each of the following positions maintain a neutral spinal alignment. Do not allow the hips to flex or the back to round.

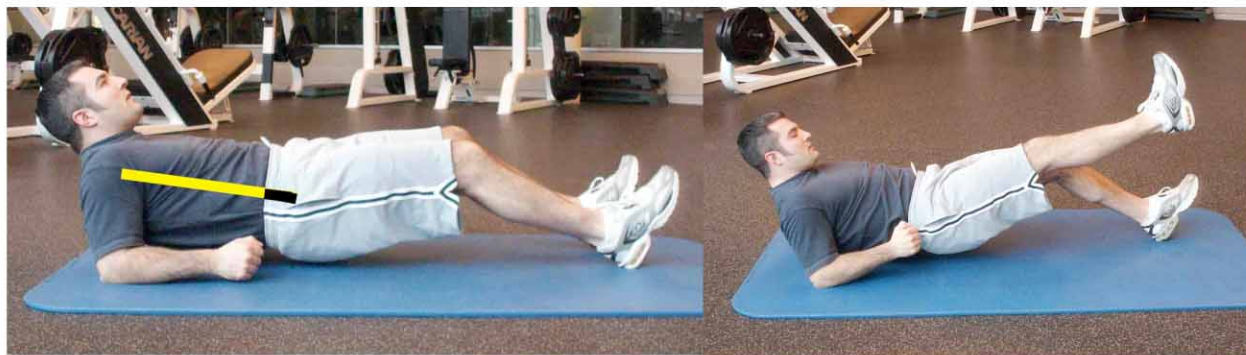
Progression of 4-Way Holds:

1. Full support (as described above)
2. Reduced support
3. Reduced stability (use a balance ball)

Side Hold Progression



Supine Hold Progression

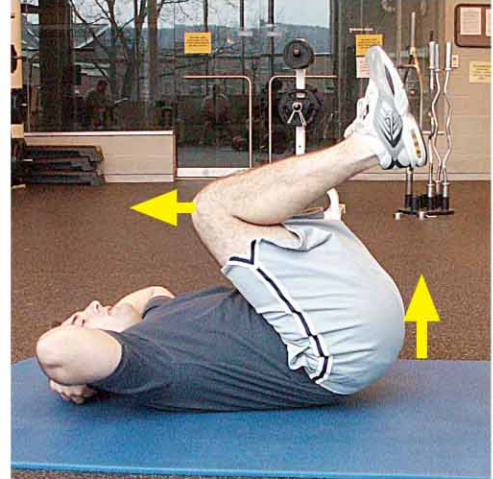
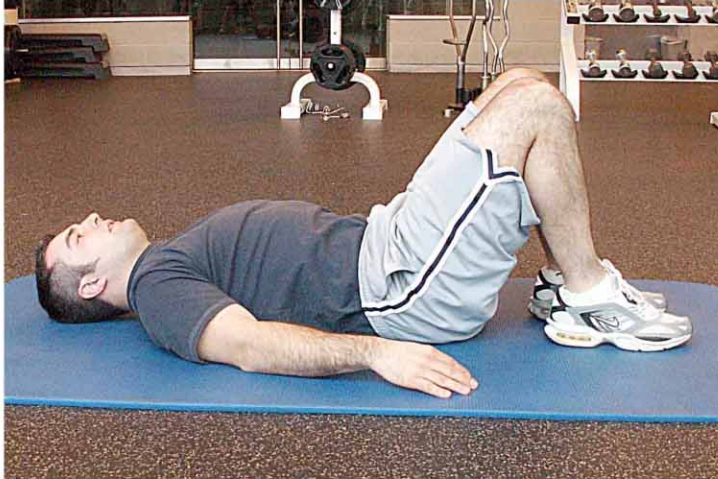


Prone Hold Progression



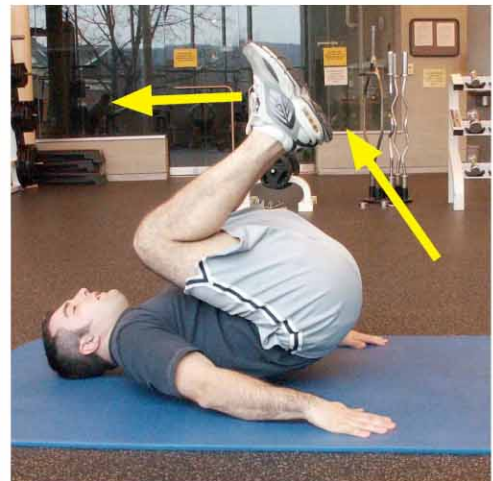
Hip raises

1. Begin in a crunch position. Lift the legs off the ground with the knees bent and close to your chest.
2. Lift the hips off the ground by contracting the abdominals. This is a short, controlled range of motion of only about two inches of movement. The feet remain off the ground at all times. Avoid using momentum to perform this movement!



Reverse Crunch

1. Begin in a regular sit up position with your arms at your side.
2. Pull the knees to your chest and lift your hips off the ground at the end of the movement.
3. Lower your legs back to the original position. The feet should touch the ground briefly. When executing this movement keep the feet close to your butt throughout the range of motion!



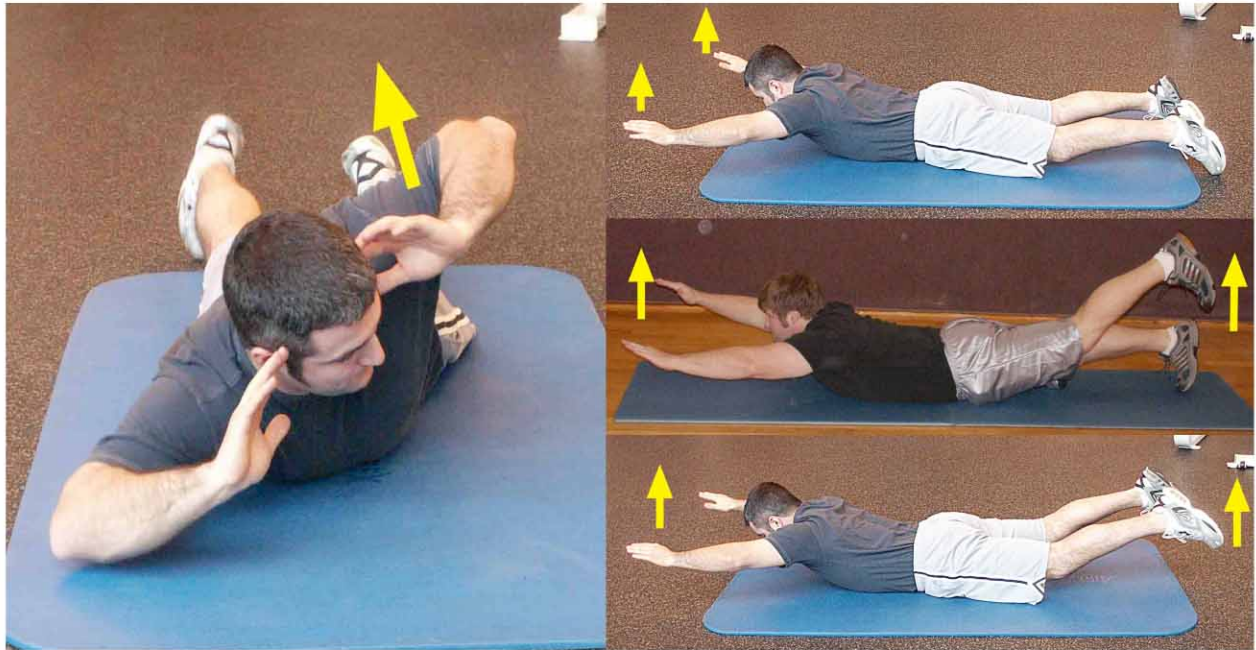
Superman

Progression of supermen:

1. Two limb trunk extension (top right)
2. Twisting trunk extension (left)
3. Three limb extension with a single foot down, opposite arm elevated higher (middle right)
4. Full body superman (bottom right)



Starting Position



Superdogs

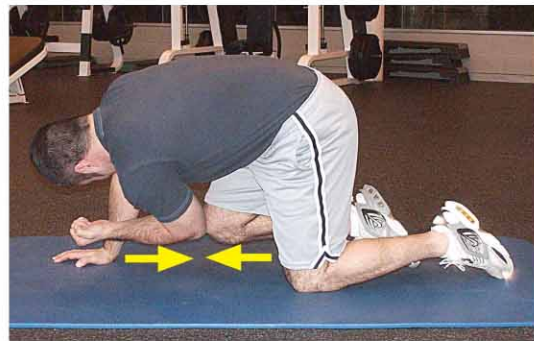
1. Begin on your hands and knees with the spine in neutral alignment. The hands and knees should be positioned directly underneath the shoulders and hips respectively. Maintain neutral spinal alignment.
2. Lift one arm up and the opposite leg. The arm should be raised as high as possible with the thumb pointing up. Extend at the hip fully, keeping the knee straight and toe pointed down. When executed properly a contraction should be felt in the gluts, lower back, and shoulder in a diagonal path across the posterior aspect of the body.
3. Switch positions while maintaining balance and stabilization of the core. Hold the top position for two seconds.

Progression of supermen:

1. Opposite limbs (top left)
2. Elbow Touches (top right)
3. Same side raises (bottom left)
4. Off bench superdogs (bottom right)



Starting Position



Alternating Accordians

1. Begin lying on your back with your arms and legs straight (top).
2. Initiate the motion by performing a crunch and lifting your trunk off the ground. Your lower back should be the last thing to leave the ground (top left).
3. Perform a full sit up whilst simultaneously pulling your knees to your chest (top right).
4. Rotate your shoulders and trunk to one side and balance on your gluteus maximus (bottom sequence).
5. When returning to the ground the lower back should be the first thing to contact. Avoid “snapping” your lower back!



Leg Lowers

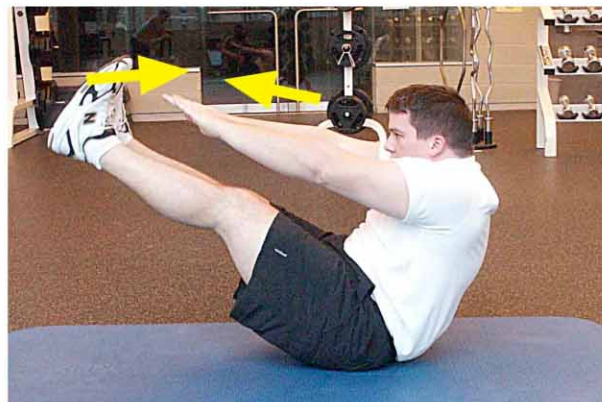
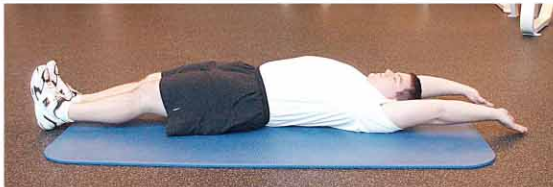
1. Begin lying on your back with your feet up and hands at the side (left).
2. Slowly lower your legs to the ground without letting them touch (top right).
3. Flex at the knees and hip and bring your legs back to the starting position (bottom right).

Pay attention to maintaining a neutral alignment of the spine throughout this movement. Stop the exercise if your lower back arches.



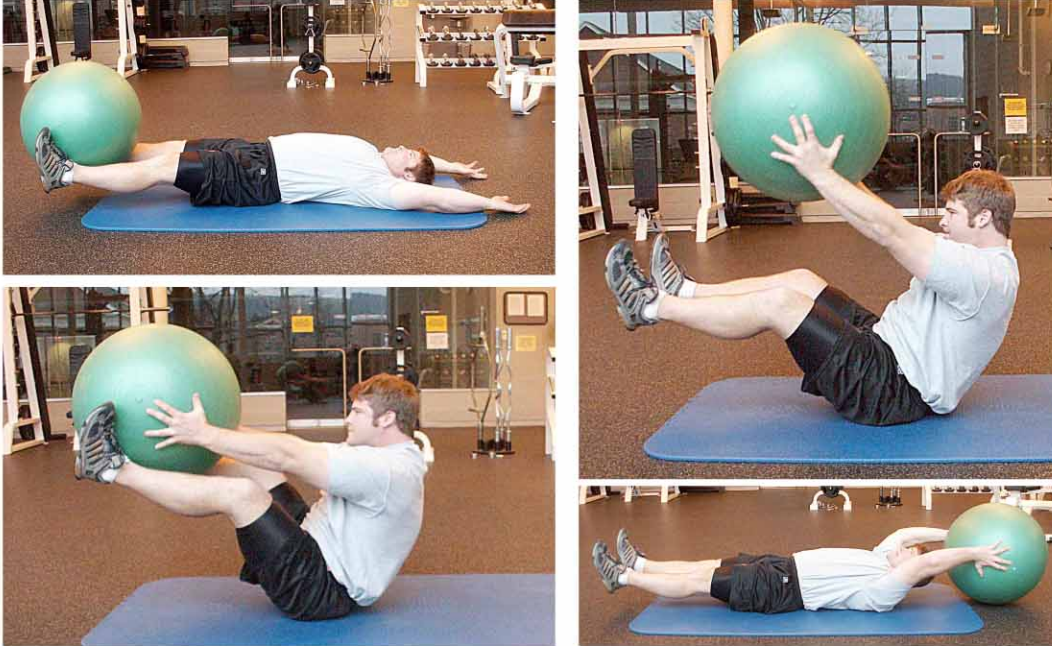
Toe Touches

1. Begin lying on your back with your arms and legs straight (top left).
2. Initiate the motion by performing a crunch and lifting your trunk off the ground. Your lower back should be the last thing to leave the ground (bottom left).
3. Simultaneously lift the legs and touch the toes in an upright position (right).



Ball Exchange

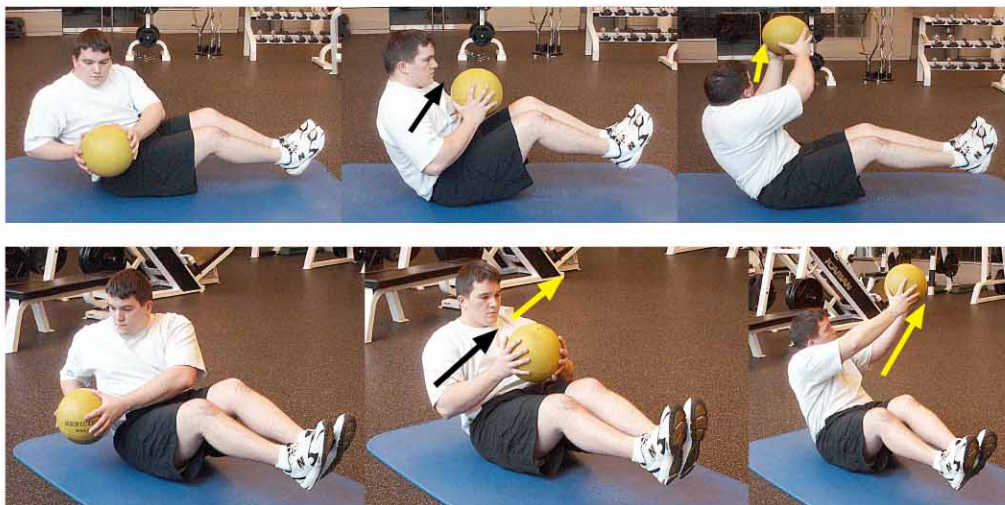
This exercise is performed in the same manner as toe touches. However, hold a ball between your legs and exchange with your hands as pictured. This extra challenge works the adductors of the hip to a greater degree while promoting increased coordination of the body as well (sequence: top left, bottom left, top right, bottom right).



V-Ups

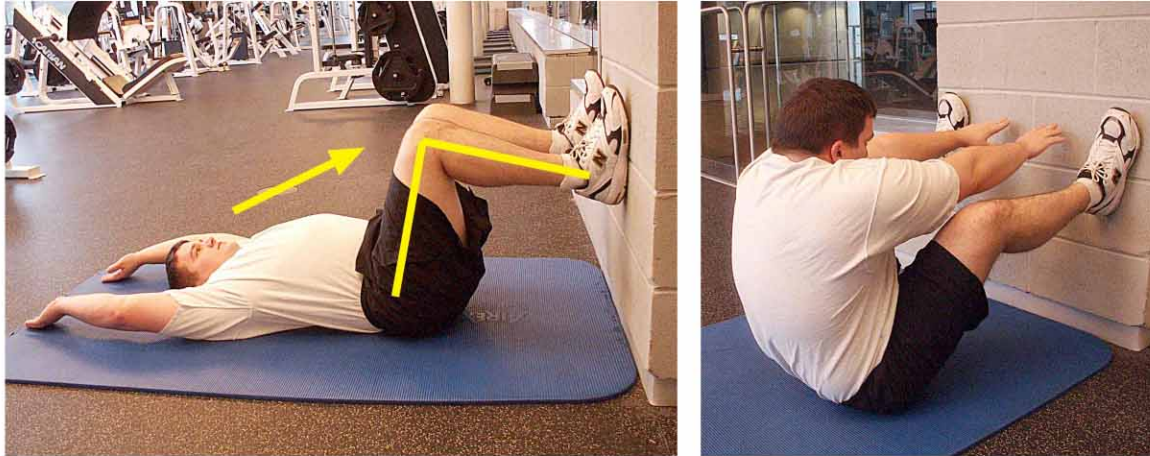
1. Begin by balancing as pictured with the shoulders rotated to one side and hands at the side.
2. Simultaneously rotate the trunk while raising your arms above your head to the opposite side in a diagonal direction.
3. Lower the arms back to your side and twist across the body again.

For added challenge hold a medicine ball or weight plate in the hands or a dumbbell between the feet.



Wall Sit-Ups

1. Begin lying in a sit up position next to a wall. The feet should be against the wall spread approximately shoulder width with a 90° bend at the knees.
2. Perform a sit up and touch the wall with your hands, holding this position for three seconds. If you cannot perform this exercise, sliding away from the wall lowers the difficulty of the exercise.



Elbow Oblique Bends

Set up on a bench as shown. Make sure your body is in a straight alignment with your feet stacked. Lower your body as far as you can and return to the starting position. Avoid twisting the shoulders while performing the movement.

