

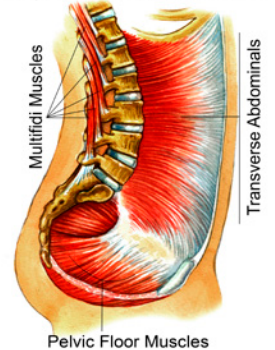


VPAC: VOLITIONAL PREIMPTIVE ABDOMINAL CONTRACTION

Lumbar Stabilization
Controlled Mobility Program →

The VPAC is a series of activation strategies for your inner core muscles. Your physical therapist will help you learn how to activate each of these muscles in isolation and then learn how to progressively control the muscle contraction. The goal is to use these strategies with all movements. The VPAC skill set will help stabilize your spine and help proper order for muscle activation in your back and hip muscles.

Deep Stabilization Muscles: Side View



Exercise Steps

1. Pelvic Floor: Gently activate your pelvic floor muscles by trying to stop the flow of urine.
2. ADIM: Abdominal Drawing in Maneuver: Draw your belly button up and in. Try to pull the front of your hip bones together. Do not hold your breath or 'suck in' your stomach.
3. ABM: Abdominal Bracing: Brace your stomach as if someone is going to punch your in the stomach.
4. Internal Obliques: Hold you sides and perform you ABM as strong as you can without holding your breath. You should feel your sides push out when activating your oblique muscles.
5. Multifidus: Perform a short lordosis. The C shaped curve of the low back is called lordosis. Try to make the curve 2 degrees more. Imaging a cable from your belly button through to the bones in your low back. Imagine that cable getting pulled forward to pull the mid lumbar spinous processes forward creating slightly more curve in the low back.
6. Progressive Control: Once you have learned how to activate the muscles in steps 1-5, now focus on progressively controlling the amount of contraction of the VPAC. Start with 10%, 25%, 50%, 75% and 100% and then release the contraction the same pattern.
 - Practice maintaining the contractions for longer periods of time. 10% for 2 minutes, 25% for 1 minute. 50% for 30 seconds and 100% for 15 seconds.
 - The greatest forces to spine occurs with heavy lifting, quick motions, transitional movements and rotational motions. Use a stronger VPAC during these activities.
 - Some forces of the spine may be lighter but have longer duration, such as carrying objects. These activities require lighter VPAC contractions but held for longer periods of time.