## Addendum to The Transversus Abdominis and Reconditioning the Lower Back

## summary

This addendum discusses 8 basic exercises of a core stability training program. See *Strength & Conditioning Journal*, 25(6), pp. 60–66, for the full article.

he "core stabilization" program begins with the quadruped exercise, making use of both one arm and the opposite leg (Figure 1). This exercise will enhance abdominal stabilizers when the transversus abdominis (TrA) is contracted, as well as influence the balancing component caused by the arm/leg position. This exercise should be held for 20–30 seconds before alter-

nating. The side thrust exercise (Figure 2) is next, enhancing shoulder stabilizers while influencing abdominal control. A 20–30 second hold time is recommended again before alternating. Next, the abdominals are trained using the curl-up (Figure 3), the oblique curl-up (Figure 4), and the reverse curl-up (Figure 5). Remember to keep the TrA contracted in both the up and down



Figure 1. Quadruped.







Figure 4. Oblique curl-up.

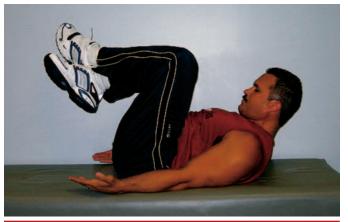






Figure 7. Piriformis stretch.



Figure 6. Dynamic hamstring stretch.



Figure 8. Psoas/quadriceps stretch.

phase of the curl. Chin retraction can be used to address the deep neck flexors and scapular retraction can be used on the reverse curl-up to enhance lower trapezius work for upper core stabilization (Figure 5). I use the bridge for the next exercise, not shown, making use of a supine position with my hands at my sides, palm up. The typical bridge exercise is performed with the TrA contracting first. This should produce a pelvic rock, which places the lower core in neutral. Now the gluteus maximus is

contracted while the scapulae are pressed into the floor for upper core balance.

The next exercise in this program is the "dynamic hamstring stretch" (Figure 6). Once again the TrA is contracted and the pelvis is rocked into neutral prior to any lower extremity movement. Remind clients to avoid pulling the leg to the chest. The object is to contract the quadriceps in an attempt to straighten the leg. This will cause hamstring inhi-

bition, therefore, producing a better stretch. The buttock is stretched next paying particular attention to the piriformis and other external rotators (Figure 7). Longer holding times allow for better form and improved results. Hold this for about 10–15 seconds. This can be followed with the traditional adductor stretch, the "butterfly". This exercise is also not shown. The quadriceps and psoas stretch (Figure 8) is the final stretch in the core stabilization program. •