

CORE STABILIZATION PROGRAM

Week	Exercises	Progression/Intensity
1	<ol style="list-style-type: none"> 1. Transverse abdominis contraction education/performance 2. Supine bent knee fall outs* 3. Dead bug alternating leg lifts* 4. Quadruped alternating arm lifts* 5. Quadruped alternating leg slides* 6. Curl ups 7. Bridge with alternating leg extension 	<ol style="list-style-type: none"> 1. Initiate in side-lying, progress to supine. 2. NA 3. Flexed knee moving leg → Sliding moving leg → straight leg raises on moving leg 4. Add exercise 4 and 5 together as alternating arm and leg movements. 5. See 4. 6. NA 7. Add transverse abdominis contraction to the exercise.
2	<ol style="list-style-type: none"> 1. Transverse abdominis contractions 2. Dead bugs with one hip held by hand in 90 degrees of flexion, alternating leg lifts* 3. Quadruped hip extensions* 4. Quadruped alternating shoulder flexion/hip extension* 5. Curl ups 6. Bridge with alternating leg extension* 	<ol style="list-style-type: none"> 1. 3 sets x 10 reps 2. Flexed knee moving leg → Sliding moving leg → straight leg raises on moving leg† 3. Add ankle weights as able. 4. Add ankle weights as able.
3	<ol style="list-style-type: none"> 1. Transverse abdominis contractions seated on BOSU ball 2. Seated on BOSU, alternating marching* 3. Dead bugs with one hip held by hand in 90 degrees of flexion, alternating leg lifts* 4. Dead bugs with one hip actively maintained in 90 degrees of flexion, alternating leg lifts* (as able, as a progression from exercise 3) 5. Quadruped hip extensions with ankle weights* 6. Quadruped alternating shoulder flexion/hip extension with ankle weights* 7. Curl ups 8. Bridge with alternating leg extension, with ankle weights* 	<ol style="list-style-type: none"> 1. 3 sets x 10 reps 2. 3 sets x 10 reps 3. Flexed knee moving leg → Sliding moving leg → straight leg raises on moving leg† 4. Flexed knee moving leg → Sliding moving leg → straight leg raises on moving leg† 5. 3 sets x 10 reps‡ 6. 3 sets x 10 reps‡ 7. 3 sets x 10 reps 8. 3 sets x 10 reps‡

4	<ol style="list-style-type: none"> 1. Seated on BOSU, alternating marching* 2. Seated on BOSU, alternating knee extensions* 3. Dead bugs with one hip actively maintained in 90 degrees of flexion, alternating leg lifts* 4. Prone alternating hip extensions 5. Seated on mat, bilateral symmetrical D2 flexion extension 6. Modified prone, and bilateral lateral planks 7. Curl ups 	<ol style="list-style-type: none"> 1. 3 sets x 10 reps 2. 3 sets x 10 reps 3. Flexed knee moving leg → Sliding moving leg → straight leg raises on moving leg† 4. 3 sets x 10 reps‡ 5. 3 sets x 10 reps, with resistance as able 6. 2 sets to fatigue for all exercises, progress to 3 sets as tolerated at second visit 7. 3 sets x 10 reps
5	<ol style="list-style-type: none"> 1. Seated on BOSU, alternating knee extensions* 2. Seated on BOSU, alternating shoulder flexion and march on opposite arm/leg* 3. Seated on BOSU, bilateral symmetrical D2 flexion extension* 4. Dead bug with both hips moving simultaneously through movements* 5. Prone alternating hip extensions with ankle weights 6. Prone bilateral, symmetrical hip extensions 7. Prone baby-Supermans 8. Modified prone, and bilateral lateral planks 	<ol style="list-style-type: none"> 1. 3 sets x 10 reps, with addition of ankle weights as tolerated 2. 3 sets x 10 reps 3. With resistance band as able. 4. Flexed knee lifts → Sliding leg extensions → straight leg raises† 5. 3 sets x 10 reps, increase weight as tolerated 6. 3 sets x 10 reps, add weight as able 7. 3 sets x 10 reps 8. Progress away from modification as tolerated, or increase to three sets. At least 2 sets to fatigue in each direction.
6	<ol style="list-style-type: none"> 1. Seated on BOSU, alternating shoulder flexion and march on opposite arm/leg* 2. Seated on BOSU, bilateral asymmetrical D1/D2 flexion/extension* 3. Dead bug with both hips moving simultaneously through movements* 4. Prone bilateral, symmetrical hip extensions with ankle weights 5. Prone baby-Supermans with hand weights (as tolerated) 6. Prone Supermans 7. Modified or non-modified (as able) prone, and bilateral lateral planks 	<ol style="list-style-type: none"> 1. 3 sets x 10 reps, with addition of ankle weights as tolerated 2. 3 sets x 10 reps 3. Flexed knee lifts → Sliding leg extensions → straight leg raises† 4. 3 sets x 10 reps, increase resistance as able 5. 3 sets x 10 reps, add resistance as able 6. 3 sets x 10 reps 7. 3 sets to fatigue in each direction.

*These exercises will be performed while the patient maintains a transversus abdominis contraction.

†One set of each progression as able.

‡Increase weight on exercises as tolerated.

||Exercises to be performed independently, every other day three times weekly as a home exercise component for each week of the program. Exercises requiring equipment will be performed without in the home setting. Details provided in the Home Exercise Program Handout

References:

Kisner C, Thorp JN. The Spine: Exercise and Manipulation Interventions. In: Kisner C, Colby LA, eds. *Therapeutic Exercise: Foundations and Techniques*. 6th ed. Philadelphia, PA: F.A. Davis Company; 2012.

Granacher U, Lacroix A, Muehlbauer T, Roettger K, Gollhofer A. Effects of Core Instability Strength Training on Trunk Muscle Strength, Spinal Mobility, Dynamic Balance and Functional Mobility in Older Adults. *Gerontology*. 2013;59:105-113.