

# Pilates Equipment Exercises for Hip and Knee Syndromes and Arthroplasties

This web resource provides content for a Pilates instructor who is fully qualified in using equipment when working with a client with a knee or hip syndrome or joint replacement. This resource provides tables for using the reformer, trapeze, barrel, and chair exercises in the beginner and intermediate classical Pilates system. The tables recommend when to include the exercise in the routine or leave it out of the program based on the postoperative timeline. Knee and hip syndromes are also included in the tables. The suggestions for including or not including an exercise in the routine are based on the baseline recommendations for range of motion and the modifications for knee and hip syndromes or arthroplasties shown in chapter 3 on pages 32 to 36.

A qualified Pilates instructor utilizing the full Pilates apparatus has completed the minimum course requirement from a Pilates

training program. The training program might include lecture, observation, personal Pilates practice, apprenticeship, and supervised student teaching and should cover the mat, reformer, trapeze, barrel, and chair. Resources on finding a qualified training program and instructor are included in the resource section.



All exercises should be performed under the guidance of a qualified Pilates instructor and with referral from the operative physician. The client's needs, restrictions, and ROM recommendations should be specified by the physician and followed accordingly. These guidelines may vary from the protocols that follow, and the protocols should be modified based on the individual's needs and the surgeon's preferences.

# Reformer



Legacy Reformer®.

Photo courtesy of Balanced Body®, at [www.pilates.com](http://www.pilates.com).

- Maintain modifications for hip and knee located in chapter 3 on pages 32 to 36 for all of the exercises.
- OK means that the exercise can be performed as is or with additional notations or options.
- Avoid means that the exercise cannot be performed at this timeline or not at all.
- Beginner means that the exercise is in the beginner classical Pilates system.

- Intermediate means that the exercise is in the intermediate classical Pilates system. These exercises are performed at this level only if the client has demonstrated proper control of the core musculature and has the ROM needed to perform the movement.
- The Reformer exercises listed in this table come from the Pilates Method Alliance. *The PMA Pilates Certification Exam Study Guide*. Miami, FL: Pilates Method Alliance; 2005:73-88.

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Footwork, all versions • Pilates V • Arches • Heels • Tendon stretch Beginner	<ul style="list-style-type: none"> <li>• OK</li> <li>• Parallel legs hip-distance apart, no turnout, all versions</li> <li>• Extend carriage out by one gear as needed</li> </ul> <p><b>Options</b></p> <ul style="list-style-type: none"> <li>• Soft pad between inner thighs</li> <li>• Small, soft ball between knees</li> <li>• Adjust springs as needed</li> </ul>	<p>OK</p> <p>Hip</p> <ul style="list-style-type: none"> <li>• Parallel legs, 3-finger Pilates turnout for Pilates V and tendon stretch</li> <li>• Extend carriage out by one gear if needed</li> </ul> <p>Knee</p> <ul style="list-style-type: none"> <li>• Parallel leg, all versions</li> <li>• Continue hip distance as needed</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• 3-finger Pilates turnout for Pilates V and tendon stretch</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Parallel legs hip-distance apart and turnout as tolerated, all versions</li> <li>• Extend carriage out by one gear as needed</li> </ul> <p><b>Options</b></p> <ul style="list-style-type: none"> <li>• Soft pad between inner thighs</li> <li>• Small, soft ball between knees</li> <li>• Adjust springs as needed</li> </ul>
Hundred Beginner	<ul style="list-style-type: none"> <li>• OK</li> <li>• Feet parallel on the foot bar, use a small, soft ball between knees</li> <li>• Work legs into tabletop as tolerated by 3 months</li> <li>• Adjust springs as needed</li> </ul> <p><b>Option</b></p> <p>No straps</p>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Tabletop legs with or without small, soft ball between knees</li> <li>• Parallel legs</li> </ul> <p><b>Option</b></p> <p>Extend legs to 90° as tolerated by 6 months</p>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Extend legs out to 90° or 45°</li> <li>• Parallel legs</li> </ul>	OK, legs extended to tabletop, 90° or 45° as tolerated
Coordination Intermediate	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Extend parallel legs out to 75° with slightly flexed knees</li> </ul> <p><b>Options</b></p> <ul style="list-style-type: none"> <li>• Keep legs in tabletop</li> <li>• Perform upper-body rounding up with arms in straps</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knees</li> <li>• Extend parallel legs out as tolerated to 45°</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knees</li> <li>• Extend parallel legs out as tolerated to 45°</li> </ul>

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Pulling straps, T-straps Intermediate	Avoid <b>Options:</b> sit tall on long box with feet on the headrest <ul style="list-style-type: none"> <li>• Sit tall, press arms with straps straight back</li> <li>• Sit tall, cross straps, and press arms out to sides</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Place towel under hips as needed</li> </ul>	OK	OK
Backstroke Intermediate	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Extend legs out to 75°-45° with slightly flexed knees as tolerated</li> </ul> <b>Options</b> <ul style="list-style-type: none"> <li>• Start as a mat exercise</li> <li>• Place long box on the mat to perform movement</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Extend legs out as tolerated with slightly flexed knees</li> </ul>
Long-stretch series <ul style="list-style-type: none"> <li>• Elephant</li> <li>• Long stretch</li> <li>• Down stretch</li> </ul> Intermediate	Avoid all movements	<ul style="list-style-type: none"> <li>• OK; introduce at 5 months</li> <li>• Start with elephant, slightly flexed knees in all versions, extend carriage as needed</li> </ul> Knee Avoid down stretch	<ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knees, extend carriage if needed</li> <li>• Use pads under knees</li> </ul> Knee Avoid down stretch if needed	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• For knee, use pads under knees</li> </ul> Knee <ul style="list-style-type: none"> <li>• Avoid down stretch if needed</li> </ul>
Stomach massage <ul style="list-style-type: none"> <li>• Round beginner</li> <li>• Flat</li> <li>• Reach</li> </ul> Intermediate	<ul style="list-style-type: none"> <li>• Avoid</li> <li>• Avoid</li> <li>• Avoid</li> </ul>	Knee <ul style="list-style-type: none"> <li>• OK; introduce at 5 months</li> <li>• Low bar, sit back</li> <li>• Hands under thighs if needed</li> <li>• Parallel legs hip-distance apart</li> <li>• Adjust spring tension</li> </ul> Hip Avoid	Knee <ul style="list-style-type: none"> <li>• OK</li> <li>• Low bar, sit back</li> <li>• Adjust spring tension</li> </ul> Hip <ul style="list-style-type: none"> <li>• OK; add in at 9 months with precautions maintained</li> <li>• 115° of flexion and lighter springs</li> <li>• Low bar, sit back</li> <li>• Parallel legs hip-distance apart</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Low bar, sit back</li> <li>• Adjust spring tension</li> <li>• Perform exercise as tolerated or leave it out</li> </ul>
Short spine massage Intermediate	Avoid	Avoid	OK Knee Bend knees as tolerated Hip Introduce at 9 months Maintain precautions	OK as tolerated

(continued)

## Reformer (continued)

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Semicircle Intermediate	Avoid	Avoid	Hip <ul style="list-style-type: none"> <li>• OK; introduce at 10 months as tolerated</li> <li>• Extend carriage</li> <li>• Legs hip-distance apart and parallel</li> <li>• Small ROM, hinge down</li> </ul> Knee Avoid	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Small ROM</li> </ul>
Side stretch or Cleopatra Intermediate	Avoid	Avoid	Avoid	OK as tolerated
Mermaid Intermediate	Avoid	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Try the Z-sit setup</li> </ul>
Grasshopper Intermediate	Avoid	Avoid	Avoid	Avoid
Swimming Intermediate	Avoid	<ul style="list-style-type: none"> <li>• Avoid</li> <li>• Perform on the mat</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid</li> <li>• Perform on the mat</li> </ul>	<ul style="list-style-type: none"> <li>• Avoid</li> <li>• Perform on the mat</li> </ul>
Short box <ul style="list-style-type: none"> <li>• Round</li> <li>• Flat</li> <li>• Twist</li> <li>• Tree</li> </ul> Intermediate	Longer safety strap on Reformer <ul style="list-style-type: none"> <li>• OK with slightly flexed knees</li> <li>• OK with slightly flexed knees</li> <li>• OK with slightly flexed knees</li> <li>• Avoid tree—do single-leg circle on mat</li> </ul> <b>Option</b> Small, soft ball between knees	Longer strap on Reformer <ul style="list-style-type: none"> <li>• OK</li> <li>• OK</li> <li>• OK</li> </ul> <ul style="list-style-type: none"> <li>• Use a strap or ring for half tree only, maintain precautions up to 110° for hip</li> </ul> <b>Option</b> Use a small ball between knees	<ul style="list-style-type: none"> <li>• OK</li> <li>• OK</li> <li>• OK</li> </ul> <ul style="list-style-type: none"> <li>• OK, use a strap or ring, maintain precautions up to 115° for hip</li> </ul>	OK as tolerated
Long spine massage Intermediate	Avoid	Avoid	Avoid	OK as tolerated
Knee stretch series <ul style="list-style-type: none"> <li>• Round</li> <li>• Flat</li> </ul> Beginner <ul style="list-style-type: none"> <li>• Knees off</li> </ul> Intermediate	Knee and Hip Avoid Knee Introduce scooter at 2 months, knees off	Hip Maintain precautions up to 110°, avoid Knees off, ease in by 6 months Knee Continue scooter with knees off <b>Option</b> Use scooter for hip and knee	Hip OK Knee Knees off: Add extra padding for round and flat positions as tolerated or avoid if uncomfortable <b>Options</b> <ul style="list-style-type: none"> <li>• Continue the scooter</li> <li>• Place hands on frame of Reformer for knees off</li> </ul>	OK as tolerated <b>Option</b> Place hands on the frame of the Reformer for knees off
Running Beginner	<ul style="list-style-type: none"> <li>• OK</li> <li>• Soft knees</li> <li>• Slower rhythm</li> <li>• Parallel hip distance</li> <li>• Lighter springs as needed</li> </ul>	OK <b>Option</b> Legs parallel, hip distance	OK	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Soft knees</li> <li>• Slower rhythm</li> <li>• Parallel hip distance</li> <li>• Lighter springs as needed</li> </ul>

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Pelvic lift Beginner	<ul style="list-style-type: none"> <li>• OK</li> <li>• Feet on foot bar just outside of hip-distance apart, arch to heel</li> <li>• Start with pelvic curl</li> <li>• Adjust spring</li> </ul> <b>Optional movement:</b> <ul style="list-style-type: none"> <li>• Head piece down</li> <li>• Bridging with no carriage movement</li> <li>• Legs wider than hip distance on the arch of foot, no turnout</li> <li>• Build into a bridge, maintain spinal articulation, and watch for hip shifting</li> <li>• Smaller ROM, watch for cramping</li> <li>• Hold carriage in and roll up and down into bridge</li> <li>• Adjust springs as needed</li> <li>• Extend carriage</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Feet on foot bar just outside of hip-distance apart, arch to heel</li> <li>• Adjust springs as needed</li> </ul> <b>Optional movement:</b> <ul style="list-style-type: none"> <li>• Head piece down</li> <li>• Bridging with carriage movement</li> <li>• Legs wider than hip-distance apart on the heel of the foot, no turnout</li> <li>• Maintain spinal articulation and watch for hip shifting, press out and in as tolerated</li> <li>• Smaller ROM</li> <li>• Adjust springs as tolerated</li> </ul> <b>Option</b> Hold carriage in and roll up and down into bridge	OK <b>Optional movement:</b> <ul style="list-style-type: none"> <li>• Head piece down</li> <li>• Bridging with carriage movement</li> <li>• Legs wider than hip-distance apart on the heel of the foot, no turnout</li> <li>• Maintain spinal articulation and watch for hip shifting, press out and in</li> <li>• Adjust springs as tolerated</li> </ul> <b>Option</b> Hold carriage in and roll up and down into bridge	OK <b>Optional movement:</b> <ul style="list-style-type: none"> <li>• Head piece down</li> <li>• Bridging with carriage movement</li> <li>• Legs wider than hip-distance apart on the heel of the foot, no turnout</li> <li>• Maintain spinal articulation and watch for hip shifting, press out and in as tolerated</li> <li>• Smaller ROM</li> <li>• Adjust springs as tolerated</li> </ul> <b>Option</b> Hold carriage in and roll up and down into bridge
<b>OPTIONAL MOVEMENTS IN SUPINE ON REFORMER</b>				
Leg circle and frog with straps	<ul style="list-style-type: none"> <li>• OK</li> <li>• Small ROM, slightly flexed knees</li> </ul>	OK	OK	OK as tolerated
Arms in supine <ul style="list-style-type: none"> <li>• Up and down</li> <li>• Circle</li> <li>• V-press</li> <li>• Triceps press-down</li> </ul>	<ul style="list-style-type: none"> <li>• OK, all versions</li> <li>• Legs on foot bar spring accordingly</li> <li>• Legs in table-top position as tolerated</li> </ul>	OK	OK	OK as tolerated

## Trapeze



**Trapeze Table.**

Photo courtesy of Balanced Body®, at [www.pilates.com](http://www.pilates.com).

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- Avoid means that the exercise cannot be performed at this timeline or not at all.
- Beginner means that the exercise is in the beginner classical Pilates system.
- Intermediate means that the exercise is in the intermediate classical Pilates system. These exercises are performed at this level only if the client has demonstrated proper control of the core musculature and has the ROM needed to perform the movement.
- The Trapeze exercises listed in this table come from the Pilates Method Alliance. *The PMA Pilates Certification Exam Study Guide*. Miami, FL: Pilates Method Alliance; 2005:90-102.

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
<b>PUSH-THROUGH BAR SPRINGS FROM ABOVE</b>				
Upper arms Roll-up Beginner	<ul style="list-style-type: none"> <li>• OK</li> <li>• Roll up with bent knees</li> <li>• Maintain precautions of 90°-100° of hip flexion</li> </ul> <b>Option</b> <ul style="list-style-type: none"> <li>• Place ball between knees</li> </ul>	OK	OK	OK
Swan Intermediate	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Modified</li> <li>• Small ROM-thoracic extension</li> </ul>	OK	OK as tolerated
Push-through, seated front Intermediate	Avoid	OK Hip <ul style="list-style-type: none"> <li>• Maintain precaution of 110° of hip flexion</li> <li>• Push-up is OK, short push-through</li> </ul> Knee <ul style="list-style-type: none"> <li>• Bend knees</li> </ul>	OK Hip Maintain precaution of 115° of flexion Knee Slightly flexed knees	OK as tolerated
Push-through, seated back Intermediate	Avoid	Knee <ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly bent knees</li> <li>• Parallel with soft ball or rolled-up towel under knees</li> </ul> Hip Avoid	OK Hip Maintain precaution of 115° of flexion	Knee OK as tolerated Hip Avoid

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Cat Intermediate	Avoid	Avoid	OK Hip Maintain precaution of 115° of hip flexion	Knee OK as tolerated Hip Avoid
Teaser Intermediate	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Bent-knee teaser</li> <li>• Single-leg teaser</li> </ul> Hip <ul style="list-style-type: none"> <li>• Maintain precaution of 110° of flexion</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Tabletop legs</li> <li>• Extend legs as tolerated with slightly flexed knees</li> </ul>	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Tabletop legs</li> </ul>
Mermaid Intermediate	Avoid	Knee <ul style="list-style-type: none"> <li>• OK</li> <li>• Feet on box</li> </ul> Hip Avoid	Knee OK Hip <ul style="list-style-type: none"> <li>• OK</li> <li>• Small ROM</li> <li>• Feet on box</li> </ul>	OK as tolerated
<b>PUSH-THROUGH BAR SPRINGS FROM BELOW</b>				
Bend and stretch and footwork Intermediate	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 10 months with light, long springs</li> <li>• Maintain precaution of 115° of hip flexion when getting into position and performing the movement</li> </ul>	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Light, long springs</li> </ul>
Sit-up Intermediate	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knees</li> </ul>	OK as tolerated
Monkey Intermediate	Avoid	Avoid	Avoid	Avoid
Tower Intermediate	Avoid	Avoid	Avoid	Avoid
<b>ROLL-DOWN BAR</b>				
Roll-down Beginner	<ul style="list-style-type: none"> <li>• OK</li> <li>• Flexed knees</li> </ul> <b>Option</b> Use a towel under knees	<ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knees</li> </ul>	OK	OK
Breathing Beginner	<ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 2 months</li> <li>• Slightly flexed knees</li> <li>• Small ROM</li> </ul>	OK	OK	OK as tolerated
Hundred Intermediate	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Facing end of trap</li> <li>• Slightly flexed knees</li> <li>• Adjust spring tension</li> </ul>	OK as tolerated	OK <ul style="list-style-type: none"> <li>• Facing end of trap</li> <li>• Flexed knees</li> <li>• As tolerated</li> </ul>

(continued)

# Trapeze (continued)

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
<b>LEG SPRINGS, SUPINE, AND SIDE LYING</b>				
Leg springs, supine <ul style="list-style-type: none"> <li>• Frog</li> <li>• Circle</li> <li>• Walking</li> <li>• Scissors</li> <li>• Bicycle</li> </ul> Beginner	<ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 3 months</li> <li>• Light to medium springs</li> <li>• Small ROM</li> <li>• Slightly flexed knees</li> <li>• No bicycle</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Light to medium springs</li> <li>• Slightly flexed knees</li> <li>• No bicycle</li> </ul>	OK	OK <ul style="list-style-type: none"> <li>• Light springs</li> <li>• Slightly flexed knees</li> <li>• No bicycle</li> </ul>
Leg springs, side lying <ul style="list-style-type: none"> <li>• Circle</li> <li>• Bicycle</li> </ul> <b>Optional movement:</b> Parallel leg up and down Intermediate	<ul style="list-style-type: none"> <li>• Avoid</li> <li>• Do SKS on the mat only</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Small circle and up and down only</li> <li>• Light to medium springs</li> <li>• Slightly flexed knee</li> <li>• Small ROM</li> <li>• No bicycle</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Small circle and up and down only</li> <li>• Light to medium springs</li> <li>• Slightly flexed knee</li> <li>• Small ROM</li> <li>• No bicycle</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Small circle and up and down only</li> <li>• Light to medium springs</li> <li>• Slightly flexed knee</li> <li>• Small ROM</li> <li>• No bicycle</li> </ul>
<b>ARM SPRINGS, SUPINE, PRONE, SITTING, KNEELING</b>				
Supine arm springs Circle <b>Optional movements</b> <ul style="list-style-type: none"> <li>• Triceps</li> <li>• Angel arms</li> </ul> Intermediate	OK	OK	OK	OK
<b>SUPINE, PRONE POSITION</b>				
Circle	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Towel or padding under hip and knee as needed</li> </ul>	OK	OK
<b>SITTING ARM SPRINGS</b>				
Rowing back Intermediate	Avoid	Avoid	OK Hip Maintain precautions 115°	OK
Flat back, sitting Intermediate	Avoid	Avoid	OK Hip Maintain precautions 115°	OK
Rowing front, sitting tall Intermediate	Avoid	Avoid	OK <b>Option</b> Sit on a moon box	OK
Bending down, sitting Intermediate	Avoid	Avoid	OK <b>Option</b> Sit on a moon box	OK
Salute, sitting Intermediate	Avoid	<ul style="list-style-type: none"> <li>• Avoid</li> <li>• OK sitting on a moon box</li> </ul>	OK <b>Option</b> Sit on a moon box	OK
Salute, kneeling Intermediate	Avoid	Hip OK Knee Avoid	Hip OK Knee Avoid	Hip OK Knee Avoid



Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Hug a tree, sitting Intermediate	Avoid	Avoid	• OK <b>Option</b> Sit on a moon box	• OK
Hug a tree, kneeling Intermediate	Avoid	Avoid	Hip OK Knee Avoid	Hip OK Knee Avoid
<b>FULL TRAPEZE TABLE</b>				
Hanging down Intermediate	Avoid	Avoid	Avoid	Avoid
Hanging up Intermediate	Avoid	Avoid	Avoid	Avoid
Spread eagle Intermediate	Avoid	Avoid	OK Hip 30° external rotation Knee Slightly flexed knees	• As tolerated • Slightly flexed knees
Standing on floor Arm springs These movements are considered <i>advanced</i> , but most can be included at 6 months postoperative or for syndromes as tolerated				
Upper-arm control, facing in	Avoid	Avoid	OK	OK
Facing out	Avoid	Avoid	OK	OK
Arm circle, facing in	Avoid	Avoid	OK	OK
Punching	Avoid	Avoid	OK	OK
Salute	Avoid	Avoid	OK	OK
Hug a tree	Avoid	Avoid	OK	OK
Twist	Avoid	Avoid	Avoid	Avoid
Butterfly	Avoid	Avoid	Avoid	OK as tolerated
Chest expansion	Avoid	Avoid	OK	OK
Reverse chest expansion	Avoid	Avoid	OK	OK
Lunge	Avoid	Avoid	• OK • Back leg with slightly flexed knee	• OK as tolerated • Back leg with slightly flexed knee

## Wunda Chair



**Wunda Chair.**

Photo courtesy of Balanced Body®, at [www.pilates.com](http://www.pilates.com)

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- Avoid means that the exercise cannot be performed at this timeline or not at all.
- Beginner means that the exercise is in the beginner classical Pilates system.
- Intermediate means that the exercise is in the intermediate classical Pilates system. These exercises are performed at this level only if the client has demonstrated proper control of the core musculature and has the ROM needed to perform the movement.
- The exercises listed in this table come from the Pilates Method Alliance. *The PMA Pilates Certification Exam Study Guide*. Miami, FL: Pilates Method Alliance; 2005:103-113.

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Double-leg pump <ul style="list-style-type: none"> <li>• V-position</li> <li>• Parallel hip-width position</li> <li>• Heels</li> </ul> <b>Option</b> <ul style="list-style-type: none"> <li>• Arches</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Sit on a moon box or hard pad to elevate the pelvis</li> <li>• Avoid V-position</li> <li>• Small ROM</li> <li>• Observe flexion precautions</li> <li>• Adjust spring tension</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• All versions</li> <li>• Small turnout for V-position</li> <li>• Adjust springs</li> <li>• Observe flexion precautions</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• All versions</li> <li>• Adjust springs</li> <li>• Observe flexion precautions</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• All versions</li> <li>• Adjust tension</li> </ul>
Single-leg pump <ul style="list-style-type: none"> <li>• Heels</li> <li>• Toes</li> </ul> Beginner	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knees</li> </ul>	OK	OK
Washer woman and hamstring I Beginner	Knee <ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knees</li> </ul> Hip Avoid	Knee <ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knees</li> </ul> Hip Avoid	Knee <ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knees</li> </ul> Hip Avoid	OK
Washer woman over the chair and hamstring II Intermediate	Avoid	Avoid	OK	OK
Washer woman over the chair, one arm Intermediate	Avoid	Avoid	OK	OK
Pull-up and hamstring III Intermediate	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Legs parallel with slightly flexed knees</li> <li>• Adjust springs up</li> </ul>	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Slightly flexed knees</li> </ul>

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Swan front and chest press Intermediate	<ul style="list-style-type: none"> <li>• OK</li> <li>• Use the Cadillac and add Wunda Chair to the front of the Cadillac</li> <li>• Lie on the table and chair in prone position</li> <li>• Perform upper thoracic extension</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Use the Cadillac and add the Wunda Chair to the front of the Cadillac</li> <li>• Lie on the table and chair in prone position</li> <li>• Perform upper thoracic extension</li> </ul>	OK as tolerated <b>Option</b> <ul style="list-style-type: none"> <li>• Use the Cadillac and add the Wunda Chair to the front of the Cadillac</li> <li>• Lie on the table and chair in prone position</li> </ul>	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Use the Cadillac; add the Wunda Chair to the front of the Cadillac</li> </ul>
Seated mermaid and sidearm sit Intermediate	Avoid	Knee OK; sit sideways <b>Option</b> <ul style="list-style-type: none"> <li>• Sit with back leg extended out to back side of chair</li> <li>• Keep leg parallel, no turnout</li> </ul> Hip Avoid	Knee OK; sit sideways <b>Option</b> <ul style="list-style-type: none"> <li>• Sit with back leg extended out to back side of chair</li> <li>• Keep leg parallel, no turnout</li> </ul> Hip Avoid	OK as tolerated
Kneeling mermaid and sidearm kneeling Intermediate	Avoid	Avoid	Hip <ul style="list-style-type: none"> <li>• OK</li> <li>• Small ROM toward operative side</li> </ul> Knee Avoid	Hip OK  Knee Avoid
Chest expansion and triceps-press sit Intermediate	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Sit on a moon box</li> <li>• Avoid with bilateral joint replacement</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Sit on a moon box</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Sit on a moon box</li> </ul>
Piano lesson and plie front Intermediate	Avoid	Avoid	Avoid	Avoid
Piano lesson and plie back Intermediate	Avoid	Avoid	Avoid	Avoid
Horseback Intermediate	Avoid	Avoid	Avoid	Avoid
Sidearm twist Intermediate	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK with the Wunda Chair at the end of a Trapeze Table</li> <li>• Sit with legs on the Trapeze Table</li> </ul>	<ul style="list-style-type: none"> <li>• OK with the Wunda Chair at the end of a Trapeze Table</li> <li>• Sit with legs on the Trapeze Table</li> </ul>
Pike and teaser on floor Beginner	Avoid	Avoid	Avoid	OK as tolerated
Cat (kneeling on top of chair) Intermediate	Avoid	Avoid	Avoid	Avoid
Jackknife from floor and corkscrew Intermediate	Avoid	Avoid	Avoid	OK as tolerated

(continued)

## Wunda Chair *(continued)*

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Swan from floor Intermediate	Avoid	<ul style="list-style-type: none"> <li>• OK with a long box placed in front of chair to lie prone on</li> <li>• Avoid with bilateral joint replacement</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Continue to place a long box in front of the chair to lie prone on as needed</li> </ul>	OK as tolerated
Frog, lying flat Beginner	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Parallel legs only on arches or heels</li> <li>• Sit farther back as needed</li> <li>• Avoid with bilateral joint replacement</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Maintain precautions for hip with 30° of external rotation</li> </ul>	OK
Single-leg pump, lying flat Beginner	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 4 months</li> <li>• Parallel legs only on arches or heels</li> <li>• Sit farther back as needed</li> <li>• Avoid with bilateral joint replacement</li> </ul>	OK	OK
Scissor leg, side lying Intermediate	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 9 months</li> </ul>	OK as tolerated
Standing leg and foot press Intermediate	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 5 months</li> <li>• Slightly flexed knees</li> <li>• Adjust springs</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Adjust springs</li> </ul>	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Adjust springs</li> </ul>
Side body twist Intermediate	Avoid	Avoid	Avoid	Knee As tolerated Hip Avoid
Spine stretch forward and sitting arm push-down Intermediate	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Sit farther back</li> </ul>	OK
<b>OPTIONAL MOVEMENTS</b>				
Reverse swan and teaser Intermediate	Avoid	Avoid	OK with Wunda Chair in front of Trapeze Table to rest legs on <b>Option</b> Tabletop legs	OK <b>Option</b> Place Wunda Chair in front of the Trapeze Table to rest legs on
Going up front Intermediate	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 9 months</li> <li>• Use a box to step up on the chair, start from top</li> </ul>	OK as tolerated Knees Avoid

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Going up side Intermediate	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 11 months</li> <li>• Use a box to step up on the chair, start from top</li> <li>• Maximum of 30° of external rotation</li> </ul>	OK as tolerated Knee Avoid
Mountain climber prep Intermediate	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 11 months</li> <li>• For hip, chest lifted and slightly rounded over, hands on top of knee, maintain pre-cautions to 115°</li> </ul>	OK as tolerated Knee Avoid

## Wunda Chair With High Back



**Wunda Chair with High Back.**

Photo courtesy of Balanced Body®, at [www.pilates.com](http://www.pilates.com).

- Maintain modifications for hip and knee located in chapter 3 on pages 32 to 36 for all of the exercises.
- OK means that the exercise can be performed as is or with additional notations or options.
- Avoid means that the exercise cannot be performed at this timeline or not at all.
- Beginner means that the exercise is in the beginner classical Pilates system.
- Intermediate means that the exercise is in the intermediate classical Pilates system. These exercises are performed at this level only if the client has demonstrated proper control of the core musculature and has the ROM needed to perform the movement.
- The exercises listed in this table come from the Pilates Method Alliance. *The PMA Pilates Certification Exam Study Guide*. Miami, FL: Pilates Method Alliance; 2005:103-113.

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Standing leg pump Front Beginner	<ul style="list-style-type: none"> <li>• OK</li> <li>• Place arch of foot on pedal</li> <li>• Adjust spring tension</li> </ul>	OK	OK	OK
Side Beginner	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• No external rotation</li> <li>• Adjust spring</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Maximum of 30° of external rotation</li> </ul>	Hip OK Knee Avoid, no external rotation
Crossover Beginner	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Stand farther back to side of chair</li> <li>• No crossing the mid-line of body</li> <li>• Adjust springs</li> <li>• Full foot on the foot bar, parallel</li> </ul>	Hip OK as tolerated Knee Keep parallel
Achilles stretch Beginner	Avoid	Avoid	Hip OK Knee Avoid	Hip OK Knee Avoid

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
<b>OPTIONAL MOVEMENTS FOR STANDING</b>				
Going up front Beginner	Avoid	Knee <ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 5 months</li> <li>• Use a box to help step up onto the chair</li> <li>• Start from the top and lower a few inches (centimeters) and back up</li> <li>• Use two top springs, adjust as needed</li> </ul> Hip <ul style="list-style-type: none"> <li>• Avoid</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Use a box to help step up onto the chair</li> <li>• Use wedge under foot bar</li> <li>• Start from the top</li> <li>• Watch for unilateral hip drop</li> <li>• Adjust springs</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Use a box to help step up onto the chair</li> <li>• Use wedge under foot bar</li> <li>• Start from the top</li> <li>• Watch for unilateral hip drop</li> <li>• Adjust springs</li> </ul>
Going up side Intermediate	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Use a box to help step up onto the chair</li> <li>• Start from the top</li> <li>• Maximum of 30° external rotation</li> </ul>	OK as tolerated
<b>OPTIONAL MOVEMENTS FOR SITTING</b>				
Double-leg pump <ul style="list-style-type: none"> <li>• V-position</li> <li>• Parallel hip-width position</li> <li>• Arches</li> <li>• Heels</li> </ul> Single-leg pump Beginner <ul style="list-style-type: none"> <li>• Heels</li> <li>• Toes</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Sit on a moon box or hard pad to elevate the pelvis</li> <li>• Avoid V position</li> <li>• Small ROM</li> <li>• Observe flexion precautions</li> <li>• Adjust spring tension</li> <li>• OK</li> <li>• Introduce at 3 months</li> <li>• Slightly flexed knee</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Small turnout for V-position</li> <li>• Adjust springs</li> <li>• Observe flexion precautions</li> </ul> <ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knee</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Adjust springs</li> <li>• Observe flexion precautions</li> </ul> OK	<ul style="list-style-type: none"> <li>• OK</li> <li>• Parallel legs</li> <li>• Adjust tension</li> </ul> OK

# Ladder Barrel



**Ladder Barrel.**

Photo courtesy of Balanced Body®, at [www.pilates.com](http://www.pilates.com).

- Maintain modifications for hip and knee located in chapter 3 on pages 32 to 36 for all of the exercises.
- OK means that the exercise can be performed as is or with additional notations or options.
- Avoid means that the exercise cannot be performed at this timeline or not at all.
- Beginner means that the exercise is in the beginner classical Pilates system.
- Intermediate means that the exercise is in the intermediate classical Pilates system. These exercises are performed at this level only if the client has demonstrated proper control of the core musculature and has the ROM needed to perform the movement.
- The exercises listed in this table come from the Pilates Method Alliance. *The PMA Pilates Certification Exam Study Guide*. Miami, FL: Pilates Method Alliance; 2005:120-124.

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Swan	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Feet on frame, with heels on vertical frame and balls of feet on base frame, legs parallel, hips on barrel</li> <li>• Slightly flexed knees</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Feet on frame, with heels on vertical frame and balls of feet on base frame, legs parallel, hips on barrel</li> <li>• Slightly flexed knees</li> </ul>	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Feet on frame, with heels on vertical frame and balls of feet on base frame, legs parallel, hips on barrel</li> <li>• Slightly flexed knees</li> </ul>
Swimming	Avoid	Avoid	Avoid	Avoid
Grasshopper	Avoid	Avoid	Avoid	Avoid
Side sit-up	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Feet staggered on the base frame</li> <li>• Hands behind head as tolerated</li> <li>• Hands as a pillow on forehead</li> <li>• Pad the barrel as needed</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Feet staggered on base frame</li> <li>• Hands behind head</li> <li>• Hands as a pillow on forehead</li> </ul> <p><b>Optional movement</b></p> <ul style="list-style-type: none"> <li>• Introduce at 10 months</li> <li>• Feet staggered on first rung with straight legs and slightly flexed knees</li> </ul>	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Feet staggered on base frame or feet staggered on first rung with straight legs and slightly bent knees</li> </ul>
Short-box series on the ladder barrel Round back	Avoid	OK Feet on lowest rung	OK Feet on lowest rung	OK Feet on lowest rung
Flat back	Avoid	OK	OK	OK as tolerated
Twist	Avoid	OK	OK	OK as tolerated
Climb a tree	Avoid	Avoid	Avoid	OK as tolerated



Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Horseback	Avoid	Avoid	Knee OK Hip Avoid	OK as tolerated
Back to forward bend	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Use a long box to stand on in front of the barrel</li> </ul>	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Use a long box on in front of the barrel</li> </ul>
<b>OPTIONAL MOVEMENT</b>				
Ballet stretch	Avoid	Avoid	Knee <ul style="list-style-type: none"> <li>• Front only</li> <li>• As tolerated</li> </ul> Hip Avoid	OK as tolerated

## Spine Corrector



**Contour Step Barrel™.**

Photo courtesy of Balanced Body®, at [www.pilates.com](http://www.pilates.com).

- Maintain modifications for hip and knee located in chapter 3 on pages 32 to 36 for all of the exercises.
  - OK means that the exercise can be performed as is or with additional notations or options.
  - Avoid means that the exercise cannot be performed at this timeline or not at all.
- Beginner means that the exercise is in the beginner classical Pilates system.
  - Intermediate means that the exercise is in the intermediate classical Pilates system. These exercises are performed at this level only if the client has demonstrated proper control of the core musculature and has the ROM needed to perform the movement.
  - The exercises listed in this table come from the Pilates Method Alliance. *The PMA Pilates Certification Exam Study Guide*. Miami, FL: Pilates Method Alliance; 2005:115-119.

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Reach and roll-down	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knees</li> </ul>	OK	<ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knees</li> </ul>
Overhead reach and rollover	Avoid	Avoid	Avoid	OK as tolerated
Leg series <ul style="list-style-type: none"> <li>• Lower and lift</li> <li>• Scissors</li> <li>• Walking</li> <li>• Bicycle</li> <li>• Frog</li> <li>• Circle</li> </ul>	Avoid	Knee <ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 5 months</li> </ul> Hip Avoid all movements	Knee OK Hip <ul style="list-style-type: none"> <li>• OK</li> <li>• Minimal hip extension over barrel</li> <li>• Reduce ROM</li> </ul>	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Slightly flexed knees</li> </ul>
Helicopter	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Maintain precautions</li> </ul>	OK as tolerated
Rolling in and out	Avoid	Avoid	Hip <ul style="list-style-type: none"> <li>• OK</li> <li>• Maintain precautions</li> </ul> Knee <ul style="list-style-type: none"> <li>• OK</li> <li>• Small ROM</li> </ul>	OK as tolerated
Corkscrew	Avoid	Avoid	Hip <ul style="list-style-type: none"> <li>• OK</li> <li>• Maintain precautions</li> </ul> Knee OK	OK as tolerated
Low bridge	Avoid	Avoid	Avoid	OK as tolerated
Back arch and bridge	Avoid	Avoid	Avoid	Avoid
Balance	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knees</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knees</li> </ul>

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Swan	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Use a pad under the hips</li> <li>• Add a towel under the knees</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Use a pad under the hips</li> </ul>	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Use a pad under the hips</li> </ul>
Grasshopper	Avoid	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Use a pad under the hips</li> </ul>
Swimming	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 9 months</li> </ul>	OK as tolerated
Rocking	Avoid	Avoid	Avoid	Avoid
Teaser	Avoid	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Slightly flexed knees as needed</li> <li>• Tabletop legs</li> </ul>	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Slightly flexed knees as needed</li> </ul>
Hip circle	Avoid	Avoid	Avoid	OK as tolerated
High bridge	Avoid	Avoid	Avoid	Avoid
Forward stretch and rest position	Avoid	OK	OK	OK
<b>OPTIONAL MOVEMENTS</b>				
Leg series, single leg <ul style="list-style-type: none"> <li>• Lower and lift</li> <li>• Frog</li> <li>• Circle</li> <li>• Bicycle</li> </ul>	Avoid	Knee <ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 5 months</li> </ul> Hip Avoid	OK Hip Minimal hip extension over barrel	OK Smaller ROM as tolerated
Optional movement arm series	<ul style="list-style-type: none"> <li>• OK</li> <li>• Perform on a raised table</li> </ul>	OK	OK	OK

## Small Barrel



### EAST COAST BABY ARC.

Photo courtesy of Balanced Body®, at [www.pilates.com](http://www.pilates.com).

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- OK means that the exercise can be performed as is or with additional notations or options.
- Avoid means that the exercise cannot be performed at this timeline or not at all.
- Beginner means that the exercise is in the beginner classical Pilates system.
- Intermediate means that the exercise is in the intermediate classical Pilates system. These exercises are performed at this level only if the client has demonstrated proper control of the core musculature and has the ROM needed to perform the movement.
- The east coast baby arc is a small barrel version of the spine corrector. The exercises below are adapted from the spine corrector series that were listed in this table from the Pilates Method Alliance. *The PMA Pilates Certification Exam Study Guide*. Miami, FL: Pilates Method Alliance; 2005:115-119.

Name of exercise	6 weeks to 3 months postop	3 to 6 months postop	6 months and beyond postop	Knee and hip syndromes
Leg series, single <ul style="list-style-type: none"> <li>• Lower and lift</li> <li>• Frog</li> <li>• Circle</li> <li>• Bicycle</li> </ul>	Avoid	Knee <ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 5 months</li> </ul> Hip Avoid all movements	OK Hip Minimal hip extension over barrel	<ul style="list-style-type: none"> <li>• OK</li> <li>• Smaller ROM as tolerated</li> </ul>
Leg series, double <ul style="list-style-type: none"> <li>• Lower and lift</li> <li>• Scissors</li> <li>• Walking</li> <li>• Bicycle</li> <li>• Frog</li> <li>• Circle</li> <li>• Helicopter</li> </ul>	Avoid	Knee <ul style="list-style-type: none"> <li>• OK</li> <li>• Introduce at 5 months</li> </ul> Hip Avoid all movements	OK Hip <ul style="list-style-type: none"> <li>• Minimal hip extension over barrel</li> <li>• Small ROM with helicopter</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Smaller ROM as tolerated</li> <li>• Small ROM with helicopter</li> </ul>
Swan	Avoid	<ul style="list-style-type: none"> <li>• OK</li> <li>• Place a mat or towel under the hips as needed for comfort</li> </ul>	<ul style="list-style-type: none"> <li>• OK</li> <li>• Place a mat or towel under the hips as needed for comfort</li> </ul>	<ul style="list-style-type: none"> <li>• OK as tolerated</li> <li>• Place a mat or towel under the hips as needed for comfort</li> </ul>
Optional movement arm series	<ul style="list-style-type: none"> <li>• OK</li> <li>• Perform on a raised table</li> </ul>	OK	OK	OK