



**APTA**  
**Pelvic Health.**

An Academy of the American  
Physical Therapy Association

**PREGNANCY & POSTPARTUM  
SPECIAL INTEREST GROUP**

# POSTPARTUM RETURN TO RUNNING PROGRAM FOR THE PHYSICAL THERAPIST

*Developed by the members of the **Pregnancy & Postpartum Special Interest Group (PPSIG)** of the Academy of Pelvic Health Physical Therapy*

This packet is designed to serve as a guide for the physical therapist (PT) treating a patient who wishes to return to running postpartum.

Learn more about the PPSIG and its other projects and initiatives at [www.aptapelvichealth.org/ppsig](http://www.aptapelvichealth.org/ppsig)

## Acknowledgements

We would like to thank the following members of the Academy of Pelvic Health Physical Therapy for contributing the development of this handout.

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## Disclaimer

The Academy of Pelvic Health Physical Therapy publishes guides and other patient education materials as a service to its members. This patient/clinician education handout was developed by the Academy of Pelvic Health Physical Therapy (APTA Pelvic Health) Pregnancy & Postpartum Special Interest Group (PPSIG) and is meant to provide general information, not specific medical advice. It is not intended to substitute for the judgment of a person's healthcare provider.

Additional information can be found at [www.aptapelvichealth.org/ppsig](http://www.aptapelvichealth.org/ppsig).

## Inquiries & Comments

This is a live document which may be regularly updated by the members of the PPSIG. For inquiries, comments, and concerns about this handout, please contact the Academy office at [www.aptapelvichealth.org/contact](http://www.aptapelvichealth.org/contact) to share your feedback.

# POSTPARTUM RETURN TO RUNNING PROGRAM FOR THE PHYSICAL THERAPIST

## INTRODUCTION

This clinical packet is designed to serve as a guide for the physical therapist (PT) treating a patient who wishes to return to running postpartum. This running recovery program has six phases. Physical therapists are expected to initially examine each patient to determine their readiness to return to running. If ready, this program can be initiated in any phase appropriate for that patient. The therapist is encouraged to modify this information accordingly to assure each patient receives a program designed to meet their specific needs. Each phase has been developed in the form of a handout, so it can be easily shared with the patient.

This program is not designed for the patient or layperson to use alone without guidance from a physical therapist. It is intended to be used when treating women following uncomplicated childbirths, or who have previously received appropriate treatment to get them ready to begin the return to running phase of their recovery. It is the professional's role to assure that each patient who is not ready to return to running, receives appropriate evidence-based care prior to advancing to this program. Women wishing to return to running following a cesarean birth, vaginal birth with significant perineal trauma, pubic symphysis complications, coccygeal injuries, or other medical/birth complications may require physical therapy treatment prior to initiating this program. Throughout this program, the physical therapist must monitor for onset of symptoms (such as pain, urinary or anal incontinence, potential prolapse or pelvic heaviness, etc.) and adjust the patient's plan of care accordingly. For example, if the childbirth was more complex, consider that the patient may need a longer time than usual to begin impact training and higher-intensity activities.

Recommendations for strengthening exercises is for the patient to perform 3 sets of 8-12 reps with a 2-3 mins rest between sets. Rest is required for muscles that have been exercised but the patient can exercise a different group of muscles during the "rest" period (for example, rest the abdominal muscles while exercising the gluteal muscles). Physical therapists can determine more specific sets and reps if needed to promote muscle fatigue for effective strengthening. Exercise progression can occur when the patient is able to perform approximately 3 sets of 10 repetitions of a given exercise using proper form, proper muscle activation patterns, and without fatigue. This can include adding weights (such as holding the baby), modifying the position to be more against gravity, changing from bilateral support to single-limb support, etc. Progressing exercises may also include performing higher amounts of repetitions to the point of fatigue but not exhaustion.

Pelvic floor muscle exercise prescription should be specific to each patient following an internal pelvic floor muscle examination. Perineal scar tissue mobilization is noted in these handouts, however if appropriate, the physical therapist must use their skills learned outside from this material to educate

and guide the patient in proper perineal scar mobilization techniques. Specific details on these techniques are not provided in this packet. Recommendations for cardiovascular exercise progression is to increase exercise duration and/or intensity at a rate of 10% weekly or within tolerance. The Rate of Perceived Exertion (RPE) can serve as a guide when advancing cardiovascular fitness.

The physical therapist is reminded to include education on proper breathing during exercise and activity in order to avoid excessive intra-abdominal pressure and to maximize strengthening and patient safety. Patients should be reminded to exhale immediately before and during the exertion or more challenging phase of strengthening exercise to enhance motor control. During exhalation, the transversus abdominus (TrA) and pelvic floor muscles (PFM) should be sub-maximally contracted, and the effort level when contracting these deep core muscles should match the level of effort to perform the exercise. For example, the TrA and PFM can be sub-maximally contracted when performing a sit-to-stand exercise as compared to a maximal contraction during a single-leg squat or deadlift with weight. All exercises should be initiated with the guidance of the PT prior to recommending it be included in the home exercise program. This assures that proper form, muscle contraction, and breathing are optimized for the safety and effectiveness of the home program. Patients who are unable to perform the exercises symptom-free (despite form and breath modifications) would not be ready for that exercise, and more time may be needed in a particular phase to build strength before progressing to the next phase. Exercises suggested in these handouts are phase-specific rather than time-specific so that each postpartum patient who is ready to begin the exercise, regardless of the time that has passed since childbirth, can begin in the appropriate phase at their own pace to assure safety when exercising and returning to running.

## RETURN TO RUNNING, STRENGTHENING, AND ABILITIES TESTING

(Goom et al. 2019)

The table below is a quick reference guide for the physical therapist to use when working with patients who desire to return to running postpartum. It provides a framework for assessing strength and abilities prior to beginning to run. If a patient is unable to complete a task listed in the table below, consider how to progress them toward being able to complete that task. Physical therapists are expected to use their professional skills when assessing patients' readiness to return to running and to modify the program as needed.

### Return to Running Strength and Ability Testing Table

#### Load and Impact Management

Walk x 30 minutes

Single-Leg Stance x 10 seconds each leg

Single-Leg Squat X 10 each leg

Jog on spot x 1 minute

Forward Bounds x 10 reps

Hop in place x 10 each leg

Singl-Leg "Running Man" x 10 each side

#### Strength Testing (target is 20 reps)

Single leg calf raises

Single leg bridge

Single leg sit to stand

Side lying abduction

#### Pelvic Floor Testing

Supine Exam (3/5 or >)

Standing Exam (3/5 or >)

10 reps of quick flicks (standing)

8-12 reps of 6-8s max contraction (standing)

60 seconds submaximal 30-50% contraction (standing)

## CONSIDERATIONS FOR POSTPARTUM MOMS

### **Before Exercising or Running:**

- ❖ Breastfeed or pump so your breasts aren't as full.
- ❖ Use the bathroom before you start.
- ❖ Warm-up ideas:
  - Marching in place, walking lunges, side shuffles, standing trunk rotation
  - Dynamic stretching of the hamstrings, hip flexors, and hip abductors/adductors

### **Clothing:**

- ❖ Wear a sports bra that fits well and gives you support. Your bra size may be different now. Double bra support if needed.
- ❖ Be sure your sneakers fit well. Your feet may be larger than before you were pregnant.

### **Running Form:**

- ❖ Listen to your physical therapist's directions for how you should run. For most people, these tips help:
  - Lean forward a little instead of being fully upright. This lets your gluteal (butt) muscles help more.
  - Push off with your toes.
  - Look about 20 feet in front of you.

### **Cool Down:**

- ❖ Walk to cool down.
- ❖ Drink lots of water, especially if you breastfeed, run when it's hot outside, or sweat a lot.
  - Divide your weight in pounds by two. That's how many fluid ounces of water you should drink every day. You should drink more if you breastfeed.
  - Example: If you weigh 200 pounds, you should drink at least 100 fluid ounces of water every day.

### **Staying strong and healthy:**

- ❖ Running for exercise is not enough. You need to strengthen!
- ❖ Strengthening should include exercises where you are up on your feet.
- ❖ See the handout for strength training exercises.

# POSTPARTUM EXERCISE PROGRESSION

## RETURN TO RUNNING: PHASE 1

**WARNING:** IF YOU EXPERIENCE ANY PAIN OR IF YOUR SYMPTOMS GET WORSE, STOP THE EXERCISE AND TALK WITH YOUR PHYSICAL THERAPIST OR MEDICAL PROVIDER. THESE ARE GUIDELINES ASSUMING UNCOMPLICATED DELIVERY.

### Active Breathing

Do this exercise in every phase of the program.

1. Inhale through your nose. Let your breath make your belly, ribs, and chest bigger.
2. Exhale through your mouth. Pull your pelvic floor up and think about making your belly tighter and flatter to help push the air out.
3. Take at least 30 breaths like this every day. Take deep breaths in different positions, like sitting, side-lying, and standing.



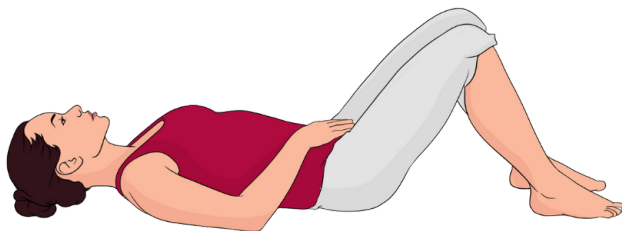
### Pelvic Floor Squeeze

#### Quick flicks

1. Squeeze and lift the pelvic floor muscles. Pretend you're trying not to pee or fart.
2. Hold for 1 second and rest for 3 seconds.
3. Repeat 10 repetitions.
4. Perform 3 times daily.
5. You can do this sitting, side-lying, or lying on your back

#### Endurance holds

1. Squeeze and lift the pelvic floor muscles. Pretend you're trying not to pee or fart.
2. Hold \_\_\_ second, rest \_\_\_ seconds.
3. Repeat \_\_\_ repetitions.
4. Perform 3 times daily.
5. You can do this sitting, side-lying, or lying on your back.



## Core Strengthening

### **Abdominal Bracing**

1. You can do this exercise in sitting or standing, or you can lie on your side, back, or stomach.
2. Find the Transverse Abdominis (TrA) muscle by placing two fingers on your belly 1-2 inches inside the pelvic bone.
3. Gently inhale. As you exhale, gently pull your belly button toward your spine.; Try to feel the TrA muscle tightening under your fingers.
4. Try to make your belly flat without moving your back or the rest of your body.
5. The next time you breathe out and tighten your muscles, make a long “shh” or “haa” sound with your breath..
6. Do it again. Try to add a pelvic floor muscle squeeze at the same time.
7. Hold for 5 seconds, then relax.
8. Do this 10 times in a row.
9. Perform 1-2 times daily.



**TIP:** Squeezing the Transverse Abdominis (TrA) and pelvic floor muscles when you are lifting the baby, picking up the car seat, or doing other difficult things helps to support your back and the rest of your body.

### **Toe Lifts**

1. While doing an abdominal brace and pelvic floor squeeze, lift your big toe off the floor while pressing the rest of your toes down. Then switch to pressing your big toe down and lifting the rest of your toes. You can do this with both feet at the same time. Breathe through the exercise.

### **Supine March**

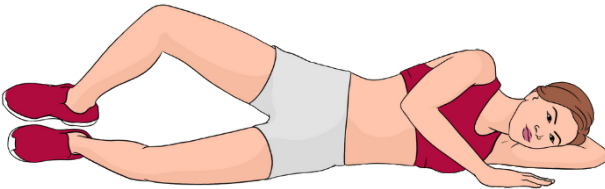
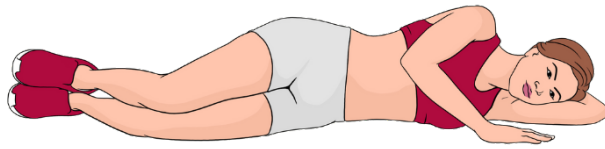
Lie on your back with your legs bent and your feet flat on the surface. Do an abdominal brace with a pelvic floor squeeze and slowly lift one foot an inch from the floor. Then put your foot back on the surface. If this is too difficult, just pick up your heel instead of your whole foot. Do it again on your other side. Do 10 repetitions on each side.





## Clamshell

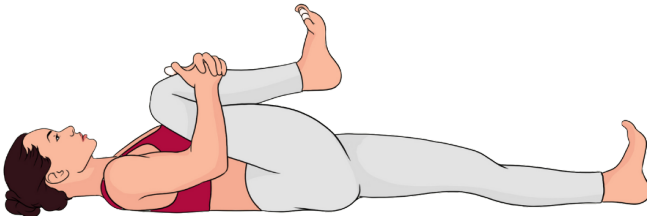
1. Lie on your side with both knees bent. Do an abdominal brace. Lift your top knee while keeping your feet together without rolling toward your back. Then put your legs back together.
2. Do this 10 times on each side.



## Walking Progression

### Walking

1. Warm-up movements: Gently march in place. Circle your arms forward and backward. Twist and reach side to side while looking over your shoulder.
2. Warm up by walking at an easy pace.
3. "Brisk walking" should be fast enough that it feels like a "very light activity." On the Rate of Perceived Exertion chart, that's a Level 2 or 3.
4. Begin walking on flat surfaces. Avoid hills.
5. You can walk with or without a stroller but try not to walk for exercise with a baby carrier.
6. Cool down by walking at an easy pace. Then stretch the muscles in your legs and chest.
7. Stretch your hips and legs after your walk



Week #	Warm Up	Brisk Walking	Cool Down
Week 1	5 minutes	5 minutes	5 minutes
Week 2	5 minutes	7 minutes	5 minutes

## Rate of Perceived Exertion

**10**

### **Max Effort Activity**

Feels almost impossible to keep going. Completely out of breath and unable to walk. Cannot maintain for more than a very short time.

**9**

### **Very Hard Activity**

Very difficult to maintain exercise intensity. Can barely breathe and can speak only a few words.

**7-8**

### **Vigorous Activity**

Borderline uncomfortable. Short of breath, can speak a sentence.

**4-6**

### **Moderate Activity**

Breathing heavily, can hold a short conversation. Still somewhat comfortable, but becoming noticeably more challenging.

**2-3**

### **Light Activity**

Feels like you can maintain for hours. Easy to breathe and carry on a conversation.

**1**

### **Very Light Activity**

Hardly any exertion, but more than sleeping (i.e. watching TV)

## POSTPARTUM EXERCISE PROGRESSION

### RETURN TO RUNNING: PHASE 2

**WARNING:** IF YOU EXPERIENCE ANY PAIN OR IF YOUR SYMPTOMS GET WORSE, STOP THE EXERCISE AND TALK WITH YOUR PHYSICAL THERAPIST OR MEDICAL PROVIDER. THESE ARE GUIDELINES ASSUMING UNCOMPLICATED DELIVERY.

Your PT may adjust these exercises.

#### Active Breathing

\*This exercise is to be continued in each phase of the program.

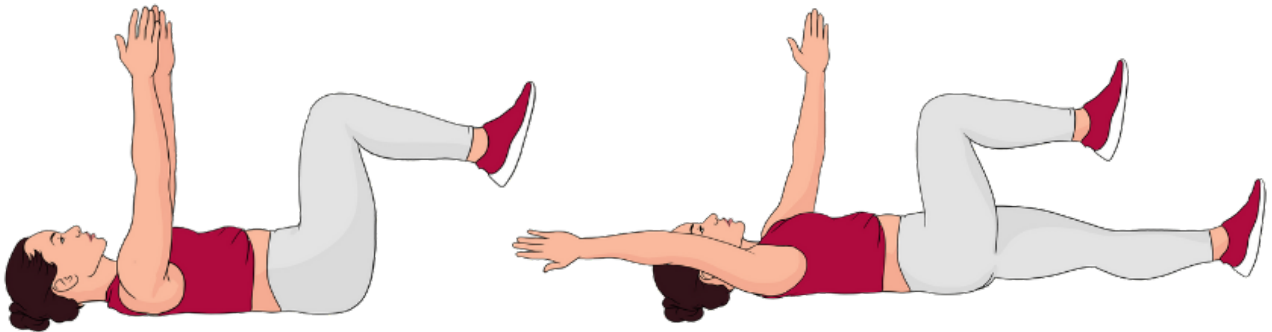
1. Inhale through your nose. Let your breath make your belly, ribs, and chest bigger.
2. Exhale through your mouth. Pull your pelvic floor up and think about making your belly tighter and flatter to help push the air out.
3. Take at least 30 breaths like this every day. Take deep breaths in different positions, like sitting, sidelying, and standing.



## Core Exercises

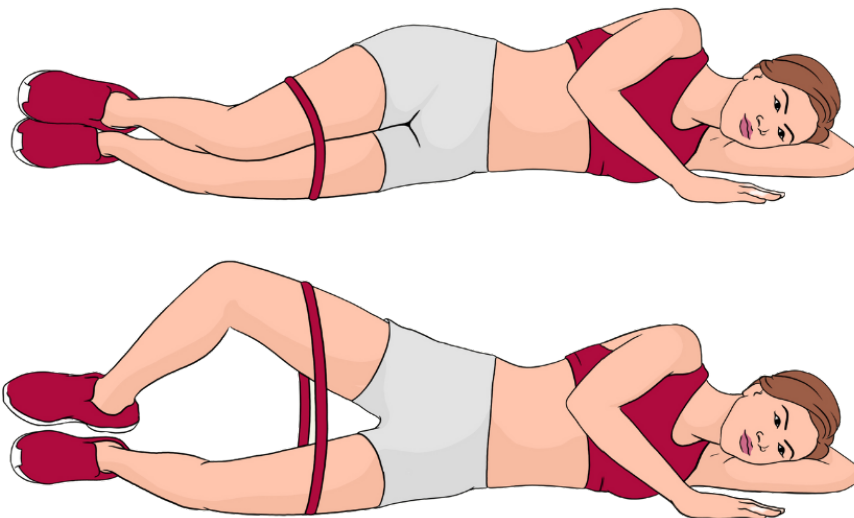
### **Dead Bug**

1. Lie on your back with your knees bent and your arms by your sides.
2. Do an abdominal brace and lift one leg to 90 degrees while lifting the opposite arm. Return to the starting position and do this motion again with your other arm and leg. Do this 10 times on each side.



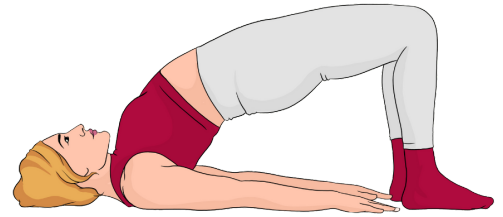
### **Clamshell with a Band**

1. Put a looped band around your thighs just above your knees.
2. Lie on your side with both knees bent. Do an abdominal brace. Lift your top knee while keeping your feet together and without rolling toward your back. Then put your legs back together.
3. Do this 10 times on each side.



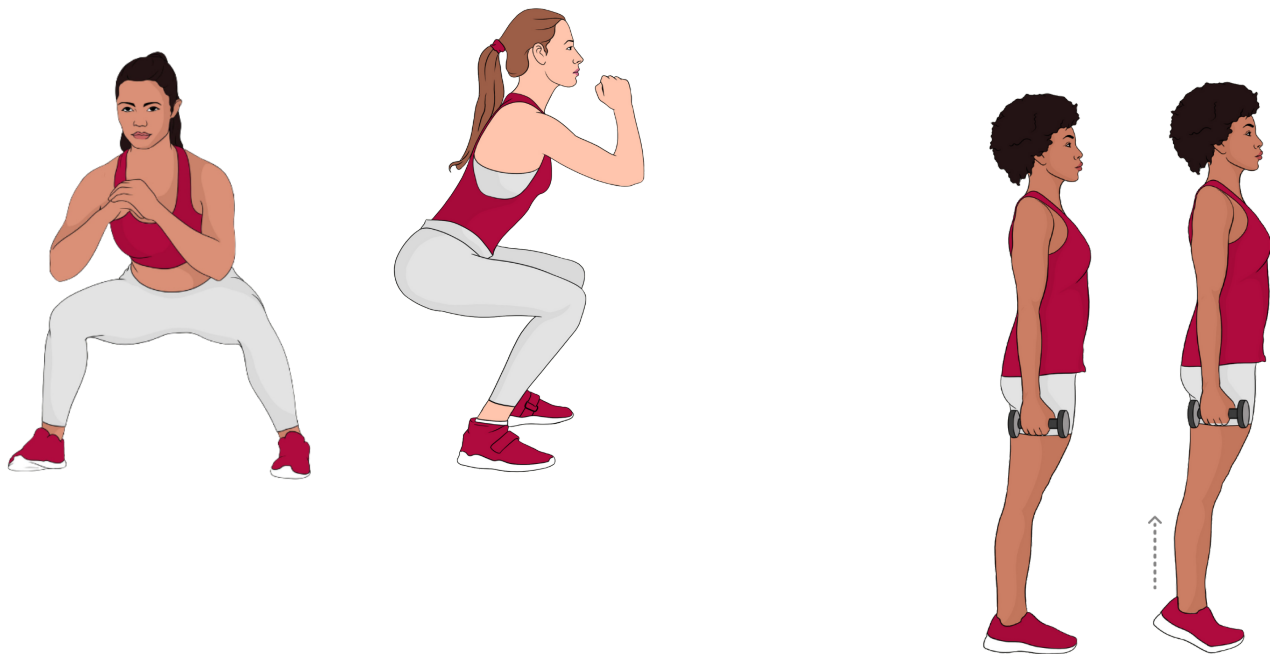
### ***Bridging***

1. Lie on your back with knees bent and feet flat
2. Inhale and as you exhale push through your heels and lift your hips up into a bridge
3. Inhale at the top and exhale as you slowly lower your hips down
4. Complete 10 repetitions
5. Perform 2-3 sets with 2-5 minute rest between each set



### ***Squats***

1. The proper squat form is based on multiple factors including your thigh/trunk length, ankle mobility, type of squat, movement control, and strength. Make sure to have your PT assess your squat to find the best form for you.
2. Know that going below 90 degrees and allowing your knees to go over your toes is normal and usually encouraged depending on your comfort and skill level.
3. Make sure to keep your knees facing forward and not going past your toes.
4. Do 3 sets of 10 reps with 2-5 minutes of rest in between each set.

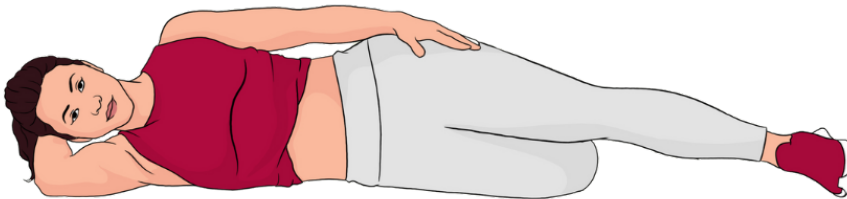
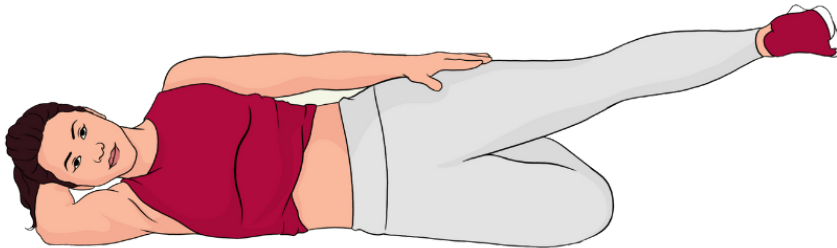


### ***Calf Raises***

1. Stand and raise both heels off the ground.
2. Complete 10 repetitions.
3. Do 3 sets of 10 reps with 2-5 minutes of rest in between each set.

### ***Sidelying Hip Abduction***

1. Begin lying on your side with your bottom knee bent. Stack one hip on top of the other and then roll the top hip slightly forward.
2. As you raise the top leg just above your hip 3-5 inches, make sure to keep the heel back behind the centerline of the body. Return to the starting position.
3. Do 3 sets of 10 reps with 2-5 minutes of rest in between each set.



### ***Single Leg Balance***

- Press down through the standing leg's foot in all four corners. Activate the glutes and TrA on that side.
- Lift the opposite leg off the ground such that it is not touching the standing leg.
- Keep your eyes open initially, only close when looking to add the challenge.
- Work up to holding for 30 seconds with 2 reps on each side.



## Walking Program Progression

1. Easy-paced walking will be included during warmup and cool-down. Brisk walking should be at a pace that causes perceived exertion to increase from a Level 1 during warmup to Level 2-3.
2. Begin walking on flat surfaces (avoid hills). Walk with a stroller or without. May be able to use a baby carrier at PT's recommendation.



## Scar Mobilization

As specifically instructed by your PT, perform perineal scar mobilizations. Make sure you have had your 6-week follow-up before initiating scar mobilization in order to allow proper healing time.

Week #	Warmup	Brisk Walking	Cool-Down
Week 2	5 minutes	7 minutes	5 minutes
Week 3	5 minutes	9 minutes	5 minutes
Week 4	5 minutes	11 minutes	5 minutes

## POSTPARTUM EXERCISE PROGRESSION

### RETURN TO RUNNING: PHASE 3

**WARNING:** IF YOU EXPERIENCE ANY PAIN OR WORSENING OF SYMPTOMS, DISCONTINUE EXERCISE AND DISCUSS WITH YOUR PHYSICAL THERAPIST. THESE ARE GUIDELINES ASSUMING UNCOMPLICATED DELIVERY. PLEASE STOP ALL EXERCISES AND CONSULT YOUR MEDICAL PROVIDER IF YOU EXPERIENCE ANY PAIN OR WORSENING OF SYMPTOMS.

#### Active Breathing

\*This exercise is to be continued in each phase of the program.

1. Inhale through the nose while expanding the belly, sides of the rib cage, and upper chest.
2. As you exhale, draw the pelvic floor up while gently tightening or flattening the abdomen. A tightening of these muscles helps push out the breath during exhale.
3. Practice x 30 breaths daily spaced throughout the day in sitting, side-lying, and standing.





## Core Exercises: Progress Transverse Abdominus (TrA) exercises

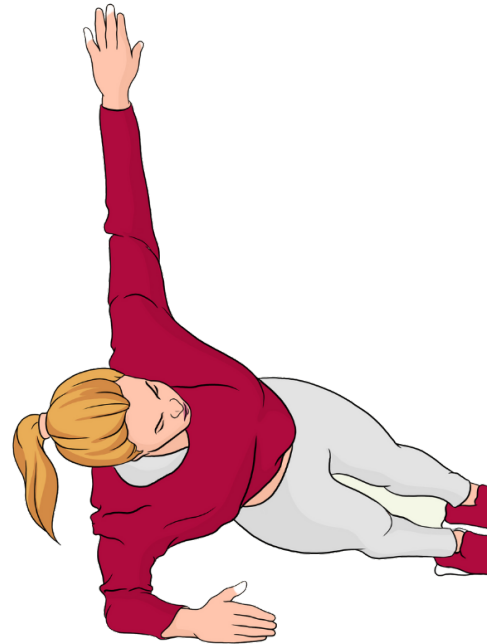
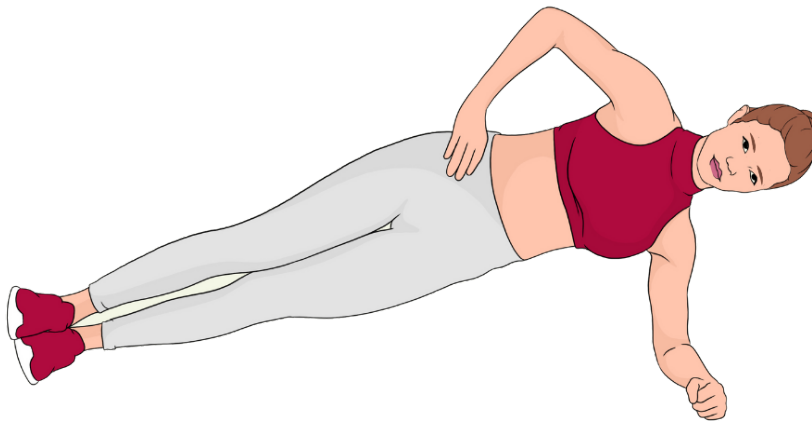
### **Plank**

1. Lie on your stomach and press yourself up onto your forearms with the elbows directly below the shoulders.
2. Engage your TrA then lift your hips just off the table keeping your body in a straight line. Make sure to breathe during hold time.
3. Hold \_\_\_\_seconds. Repeat \_\_\_\_ times.



### **Modified Side Plank**

1. Begin lying on your side with legs stacked one on top of the other.
2. Bring your arm to the mat and elbow directly under your shoulder.
3. Raise your hips up off the ground and hold this position. Make sure to breathe during hold time.
4. Hold \_\_\_\_seconds. Repeat \_\_\_\_ on each side.



## Strengthening Exercises

### **Lunges**

1. Start by standing with feet shoulder-width apart.
2. Take a step backward and allow your front knee to bend as you lower down.
3. Your back knee may bend as well. Keep your pelvis level and face forward. Your front knee should be in line with the 2nd toe and not extend past the front of your toes
4. Raise back up but do not step backward. Repeat by lowering down.
5. Return to standing with feet shoulder width apart once you have completed all repetitions.
6. Complete \_\_\_\_ repetitions. Do \_\_\_\_ sets on each leg.
7. Progression: Add the baby close to the center for added resistance.



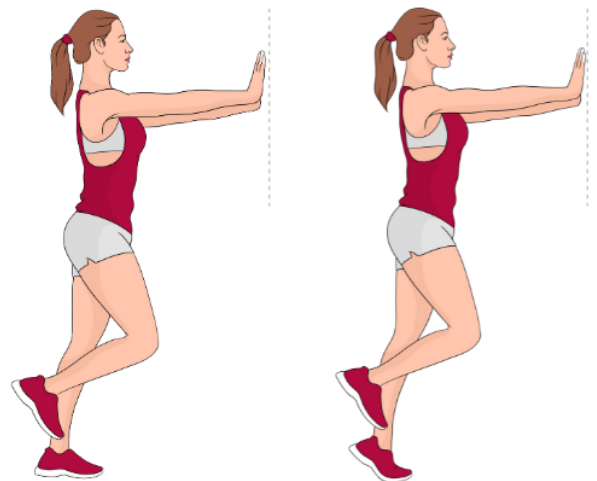
### **Single Leg Bridging**

1. While lying on your back with your knees bent, extend one leg up to the ceiling while the other foot remains on the floor
2. Press into the grounded foot as you raise your buttocks off the floor
3. Try and keep your pelvis level the entire time by not letting your hip drop down
4. Hold \_\_\_\_seconds. Repeat \_\_\_\_times on each side.



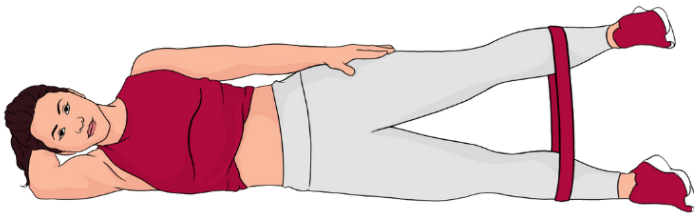
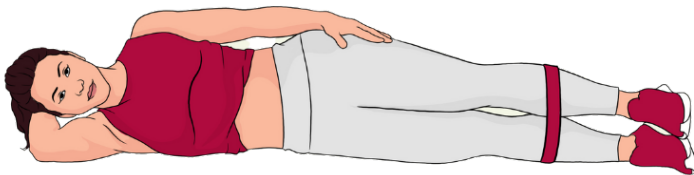
### **Single Leg Calf Raises**

1. Stand close to a wall and use it for balance if needed
2. Rise up onto the ball of one foot
3. Hold briefly on that leg then slowly lower back down.
4. Complete \_\_\_\_repetitions on each side. Do \_\_\_\_sets.



### ***Sidelying Leg Lift with Band***

1. Begin lying on your side with your bottom knee bent. Stack one hip on top of the other. Place a \_\_\_\_lbs. ankle weight on the top leg or use a resistance band around the lower legs
2. As you raise the top leg just above your hip 3-5 inches, make sure to keep the heel back behind the center line of the body.
3. Return to the start position.
4. Complete \_\_\_\_repetitions. Do \_\_\_\_sets.



## **Balance Exercises**

### ***Running "Wo"man***

1. Press down through the standing leg's foot in all four corners. Activate the glutes and TrA on that side
2. Lift the opposite leg off the ground like you are marching while swinging the opposite arm to simulate a high-knee running position.
3. Complete \_\_\_\_repetitions on each side. Do \_\_\_\_sets.



## Cardiovascular Training

### ***Low Impact Cardiovascular Exercise***

Cardio-based exercise should be performed at 25-50% of the level of effort of pre-pregnancy cardio-based exercise with suggestions made by your PT. Options can include:

1. Stationary cycling but not in a group class setting
2. Crosstrainer/elliptical
3. Water aerobic exercise

### **Walking Program Progression**

3. Warm-up and cool-down as listed in previous phases.
4. Easy-paced walking will be included during warmup and cool-down. Brisk walking should be at a pace that causes effort to increase from a Level 1 during warmup to a Level 2-3.
5. Walking can include hills at this time. Recommend beginning hills without baby carrier but stroller. Make sure to talk to your PT for guidance.

Week #	Warmup	Brisk Walking	Cool-Down
Week 4	5 minutes	11 minutes	5 minutes
Week 5	5 minutes	13 minutes	5 minutes
Week 6	5 minutes	15 minutes	5 minutes

# POSTPARTUM EXERCISE PROGRESSION

## RETURN TO RUNNING: PHASE 4

**WARNING:** IF YOU EXPERIENCE ANY PAIN OR INCREASE OF SYMPTOMS, PLEASE STOP ALL EXERCISES AND CONSULT YOUR MEDICAL PROVIDER IF YOU EXPERIENCE ANY PAIN OR WORSENING OF SYMPTOMS.

### Active Breathing

\*This exercise is to be continued in each phase of the program.

1. Inhale through the nose while expanding the belly, sides of the rib cage, and upper chest
2. As you exhale, draw the pelvic floor up while gently tightening or flattening the abdomen. A tightening of these muscles helps push out the breath during exhale
3. Practice x 30 breaths daily spaced throughout the day in sitting, side-lying, and standing



### Core Exercise: Progress Deep Abdominal Exercises

#### Plank

1. Lie on your stomach and press your trunk up onto extended arms with the wrists directly below the shoulders.
2. Engage your deep abdominals, while keeping your body in a straight line with your knees off the floor. Make sure to breathe during hold time.
3. Hold \_\_\_\_seconds. Repeat \_\_\_\_ times.

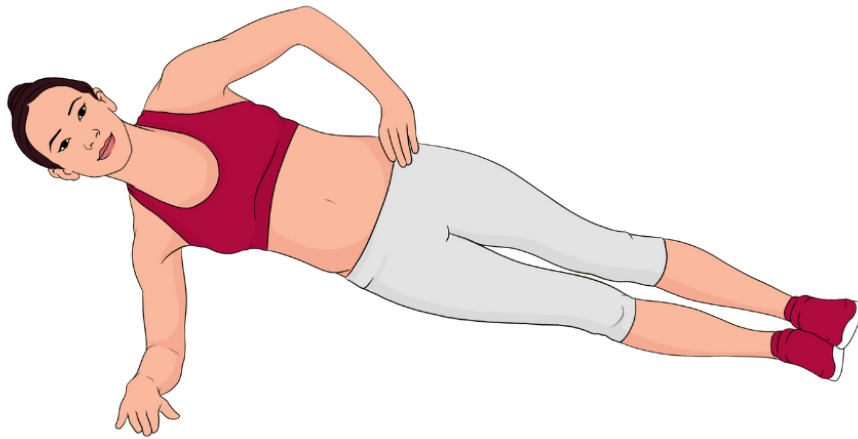
#### Mountain climbers

1. Assume plank position as listed above
2. Bring one knee forward towards the same side elbow, like a high knee march position
3. Return leg out straight to plank position
4. Repeat on the opposite side as if you are marching
5. Start with \_\_\_\_ repetitions. Working up to 3 sets of 10-15 reps.
6. Progression: increase the speed of movements while keeping the spine straight.



## ***Side Plank***

1. Begin lying on your side with legs stacked one on top of the other and knees in a straight line.
2. Bring your palm to the mat and your wrist directly under your shoulder.
3. Raise your hips and knees up off the ground and hold this position. Make sure to breathe during hold time.
4. Hold \_\_\_\_seconds. Repeat \_\_\_\_on each side.

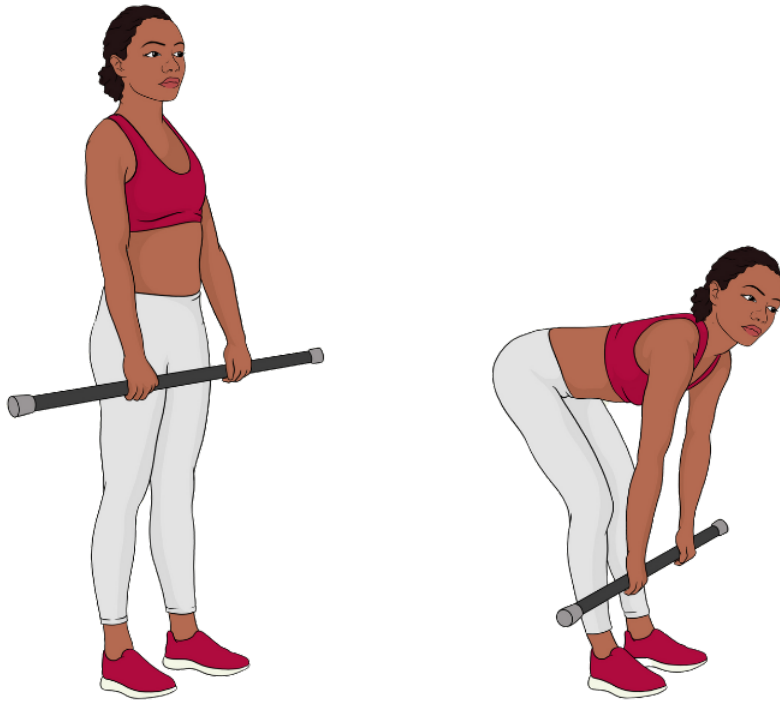


## Strengthening Exercises

### ***Single-Leg Sit to Stand***

1. Begin sitting in a chair.
2. Turn on the deep abdominals and pelvic floor muscles while exhaling and coming to a standing position on one leg
3. Then release the contraction, inhale, and return to the sitting position while maintaining control and slowly lowering your body.
4. Do \_\_\_\_ sets of \_\_\_\_ repetitions. Work up to 2 sets of 10 repetitions.
5. Progression: Start standing and move your pelvis backward as if you were to sit in a chair but do not actually sit.





### ***Romanian Deadlift***

1. Start in a tall standing position with a slight bend in your knees and engage your deep abdominals and pelvic floor
2. While inhaling, begin to hinge at the hips while you maintain a flat back.
3. Once you feel a stretch in the back of the legs, exhale, engage your pelvic floor and TrA muscles, and begin to drive through your heel to bring your hips forward and shoulders back to starting position.
4. Complete \_\_\_\_ sets of \_\_\_\_ repetitions to start. Start with no weight, then increase to a lighter weight (approx. 3-5 lbs total [for both arms]) or as prescribed by PT.





### ***Plyometrics***

1. Double leg hop in place
2. Add movement in various directions: (within a foot each way)
  - a. forward and backward
  - b. side to side
3. Focus on activating the pelvic floor and deep abdominals just before you hop and during your hop as you exhale.
4. When landing, make sure to have soft knees while lowering into a mini-squat for shock absorption.
5. Do \_\_\_\_ reps total in each direction.

## Cardiovascular Training

### ***Low impact cardiovascular exercise***

Cardiovascular exercise should be performed at approximately 50-75% of your pre-pregnancy intensity, based on PT recommendations.

## Scar Mobilization

As specifically instructed by your PT, perform perineal scar mobilizations. Make sure you have had your 6-week follow-up before initiating scar mobilization in order to allow proper healing time.

## Walking Program Progression

### ***Brisk Walking***

1. Warm-up and cool-down as listed in previous phases.
2. Easy-paced walking will be included during warmup and cool-down. Brisk walking should be at a pace that causes perceived exertion to increase from a Level 1 during warmup to a Level 2-3.
3. Walking can include hills at this time with the use of a stroller but the use of a baby carrier at the discretion of the PT.

**Return to more structured physical activities like yoga and Pilates can be done around 6 weeks postpartum under the guidance of your PT.**

Week #	Warmup	Brisk Walking	Cool-Down
Week 6	5 minutes	15 minutes	5 minutes
Week 7	5 minutes	18 minutes	5 minutes
Week 8	5 minutes	20 minutes	5 minutes

## POSTPARTUM EXERCISE PROGRESSION

### RETURN TO RUNNING: PHASE 5

**WARNING:** IF YOU EXPERIENCE ANY PAIN OR INCREASE OF SYMPTOMS, PLEASE STOP ALL EXERCISES AND CONSULT YOUR MEDICAL PROVIDER IF YOU EXPERIENCE ANY PAIN OR WORSENING OF SYMPTOMS.

#### Active Breathing

\*This exercise is to be continued in each phase of the program.

1. Inhale through the nose while expanding the belly, sides of the rib cage, and upper chest .
2. As you exhale, draw the pelvic floor up while gently tightening or flattening the abdomen. A tightening of these muscles helps push out the breath during exhale.
3. Practice x 30 breaths daily spaced throughout the day in sitting, side-lying, and standing.

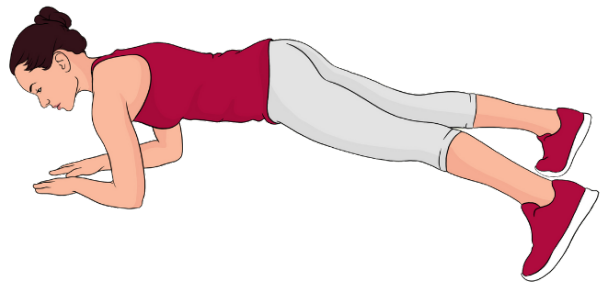
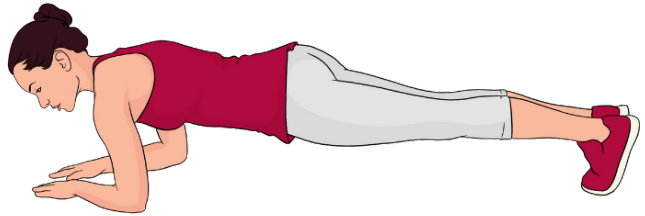


## Core Exercise: Progress Transverse Abdominus (TrA) exercises

### Planking Progressions

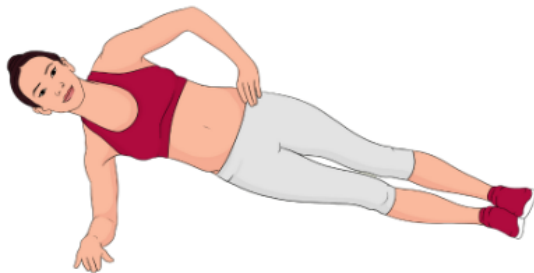
#### ***Jumping jack plank***

1. Lie on your stomach and press your trunk with the forearms directly below the shoulders.
2. Engage your deep abdominals as you hold your body in a straight line with your knees off the floor. Make sure to breathe during hold time.
3. Then inhale and as you exhale, maintain abdominal and pelvic floor activation while you jump the feet apart and back together, like you would in a jumping jack. The distance apart for the feet should start smaller and progress to wider apart as possible.
4. Do \_\_\_\_ times for \_\_\_\_ sets.



#### ***Star Side Plank***

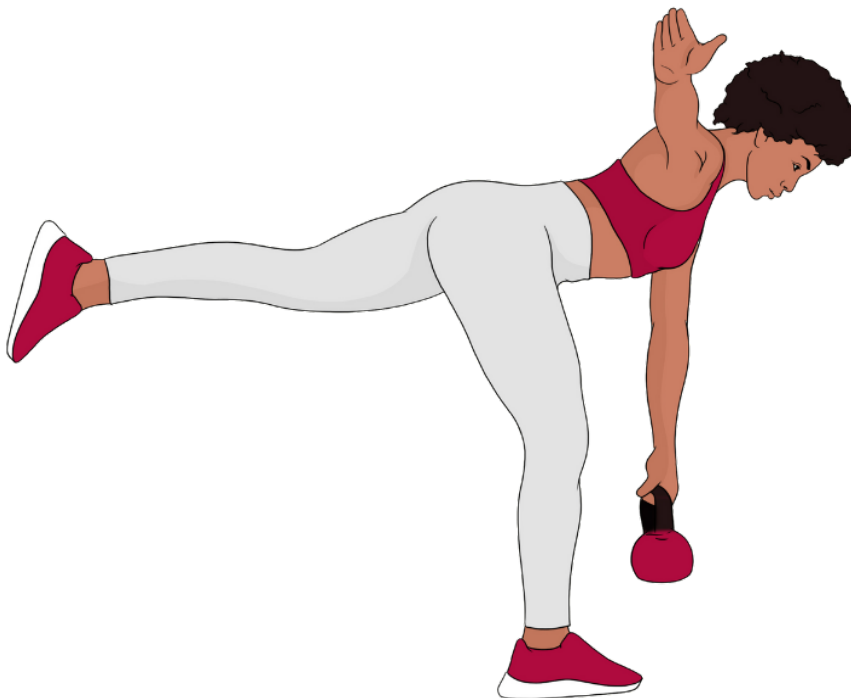
1. From previous side plank progression-get setup in a knee-down side plank either on the forearm or extended arm.
2. Inhale and as you exhale engage the pelvic floor and TrA, then lift into a side plank with the top leg extended and arm reaching overhead.
3. Inhale and release back down.
4. Do \_\_\_\_ times for \_\_\_\_ sets.



## Strengthening Exercises

### ***Single-Leg Deadlift***

1. Standing upright with weight shifted to the grounded leg, exhale to slightly engage the pelvic floor and TrA in preparation for movement.
2. While inhaling, begin to hinge at the hip of the grounded leg while you maintain a flat back. The other leg will reach long behind you. Think of pushing your foot through the wall behind, not up towards the ceiling.
3. Once you feel a stretch in the back of the standing leg, exhale, engage your pelvic floor and TrA muscles, and begin to drive through your heel to bring your hips forward and shoulders back to starting position.
4. Repeat \_\_\_\_times on each side for a total of \_\_\_\_sets.





### ***Curtsy Lunge***

1. Standing upright, exhale to slightly engage the pelvic floor and TrA in preparation for movement.
2. Inhale the lower right leg behind the left in the fashion of a curtsy. Make sure that the left knee does not go past the toes.
3. Exhale and engage pelvic floor and TrA along with the glutes and quads to return to standing upright.
4. Repeat \_\_\_\_ times on each side for a total of \_\_\_\_ sets.

### ***Single-Leg Squat***

1. Standing upright with weight shifted to the grounded leg, exhale to slightly engage the pelvic floor and TrA in preparation for movement.
2. Inhale as you slowly lower the body down on one leg like you are sitting in a chair with control. Make sure that the knee does not go past the front of the toes and that it stays in line with the foot.
3. Exhale while engaging the pelvic floor and TrA and coming to a standing position on that leg. Focus on pushing through the heel and activating the glutes.
4. If depth is limited, try these options:
  - a. Stand on an elevated surface with one foot on the elevated surface and the other foot over the side of the elevated surface. Slowly lower self down to comfort level then stand back up.
  - b. Under the standing leg, use a wedge, a small plate, or a book to elevate the heel.
5. Do \_\_\_\_times on each side for a total of \_\_\_\_sets.



## Balancing Exercises

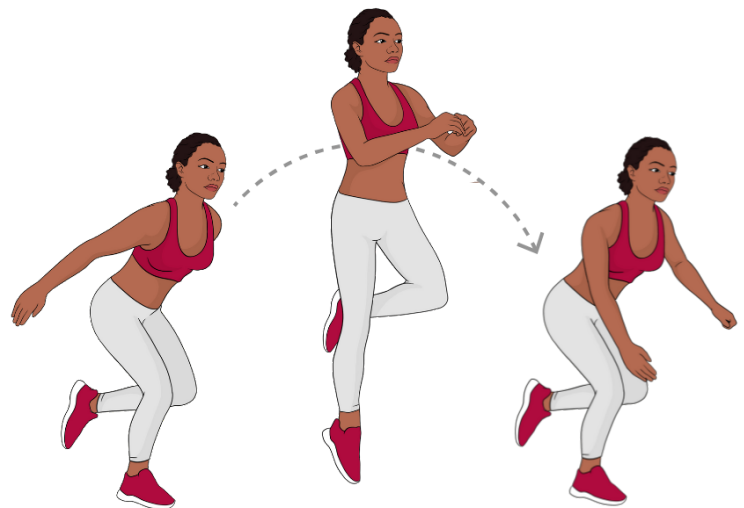
### Running “wo”man with single leg deadlift component

1. Press down through the standing leg's foot in all four corners. Activate the glutes and TrA on that side.
2. Lift the opposite leg off the ground like you are marching while swinging the opposite arm to simulate a high-knee running position.
3. Then keep the TrA and pelvic floor engaged as you hinge forward. The bent knee will extend long behind you along with the arm on the opposite side. The arm opposite the standing leg will reach forward. Make sure not to hold your breath during movement.
4. Then return to the start position.
5. Complete \_\_\_\_ repetitions on each side. Do \_\_\_\_ sets.



### Plyometrics

1. Single leg hops.
2. Add directional movement: (within a foot each way)
  - a. forward and backward
  - b. side to side
3. Focus on activating the pelvic floor and TrA just before you hop and during your hop as you exhale.
4. When landing, make sure to have soft knees while lowering into a mini-squat for shock absorption.
5. Do \_\_\_\_ reps total in each direction.





## Cardiovascular Training

### ***Low impact cardiovascular exercise***

Cardiovascular exercise should be performed at approximately 50-75% of your pre-pregnancy intensity, based on PT recommendations with an upper limit of 30-40 minutes

## Walking Progression

1. Warm-up and cool-down as listed in previous phases.
2. Easy-paced walking will be included during warmup and cool-down. Brisk walking should be at a pace that causes perceived exertion to increase from a Level 1 during warm-up to a Level 2-3.
3. Walking can include hills at this time with the use of a stroller. You can use a baby carrier as well.
4. Return to more strenuous activity like swimming laps or indoor cycling classes may be resumed at this point under the guidance of your PT.

Week #	Warmup	Brisk Walking	Cool-Down
Week 8	5 minutes	20 minutes	5 minutes
Week 9	5 minutes	23 minutes	5 minutes
Week 10	5 minutes	26 minutes	5 minutes
Week 11	5 minutes	28 minutes	5 minutes
Week 12	5 minutes	30 minutes	5 minutes

# POSTPARTUM EXERCISE PROGRESSION

## RETURN TO RUNNING: PHASE 6

**WARNING:** IF YOU EXPERIENCE ANY PAIN OR INCREASE OF SYMPTOMS, PLEASE STOP ALL EXERCISES AND CONSULT YOUR MEDICAL PROVIDER IF YOU EXPERIENCE ANY PAIN OR WORSENING OF SYMPTOMS.

### Graded Return to Running

Preference is to be screened by a skilled practitioner for return to run to determine areas of difficulty with strength, load, and impact management. Return to run guidelines will help you determine what might be assessed:

Load and Impact Management	Strength Testing (target=20 reps)
WALK X 30 MINUTES at pre-pregnancy listed intensity	Single leg calf raise
SINGLE LEG STANCE X 10s EACH LEG	Single leg bridge
SL SQUAT X 10 EACH LEG	Single leg sit to stand
JOG IN PLACE X 1MIN	Side lying abduction
FORWARD BOUNDS X 10 REPS	
HOP IN PLACE X 10 EACH LEG	Pelvic Floor testing by PT
SL "RUNNING MAN" X 10 EACH SIDE	

### Return to Run Progression Guidelines

1. Do not progress more than 2 of the levels (shown in the table below) in one week.
2. Must complete 1 session at each level without symptoms of pain, heaviness, or leakage before progressing to the next level.
3. Try to make sure to take approximately 48 hours of rest between sessions.
4. Goal-specific strength training will continue based on screening findings with PT for return to run readiness.
5. At this point, progression will be dependent on strength and symptoms. Make sure not to vary too many factors at once.
  - o Factors can include terrain, mileage, time, shoes, stroller usage, and running surface (trail vs. road).
6. Strengthening Program: You should still include pelvic floor, core exercises, lower body strength, and balance exercises based on the areas that continue to need progress to be made and composed otherwise of a well-rounded program to progress back to running in the postpartum recovery period

**Table 3. Sample Return to Running Program**

Week of Program	Work Phase (jog/run)	Rest Phase (walk)	Maximum Total Time
1	1 min	2 min	20 min
2	1 min	1 min	20 min
3	1 min	2 min	30 min
4	1 min	1 min	30 min
5	2 min	2 min	20 min
6	2 min	1 min	20 min
7	2 min	2 min	30 min
8	2 min	1 min	30 min
9	3-5 min	2 min	30 min
10	3-5 min	2 min	45 min
11	5-10 min	2 min	30 min
12*	10-15 min	2 min	45 min

\*Beyond week 12, desired factors (i.e. intensity, duration) may increase or decrease dependent on athlete goals. If the client desires to increase shorter duration speed work, this program may be more heavily focused on the earlier components with increasing intensity of the work phase.

## References

- Selman, R., Early, K., Battles, B., Seidenburg, M., Wendel, E., & Westerlund, S. (2022). Maximizing Recovery in the Postpartum Period: A Timeline for Rehabilitation from Pregnancy through Return to Sport. *International Journal of Sports Physical Therapy*, 17(6), 1170-1183.
- Goom, T., Donnelly, G., & Brockwell, E. (2019). Returning to running postnatal—guidelines for medical, health and fitness professionals managing this population. *Absolute Physio*.
- Freitas de Salles, B., Simao, R., Miranda, F., da Silva Novaes, J., Lemos, A., & Willardson, J. M. (2009). Rest interval between sets in strength training. *Sports medicine*, 39(9), 765-777.
- Nielsen, R. Ø., Parner, E. T., Nohr, E. A., Sørensen, H., Lind, M., & Rasmussen, S. (2014). Excessive progression in weekly running distance and risk of running-related injuries: an association which varies according to type of injury. *journal of orthopaedic & sports physical therapy*, 44(10), 739-747.
- Arney, B. E., Glover, R., Fusco, A., Cortis, C., de Koning, J. J., van Erp, T., ... & Foster, C. (2019). Comparison of RPE (rating of perceived exertion) scales for session RPE. *International journal of sports physiology and performance*, 14(7), 994-996.
- Mayo Clinic. Get walking with this 12-week walking program.  
<https://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/walking/art-20050972>. Accessed on 11/9/2022.