

Hemophilia and Thrombosis Center  
University of North Carolina at Chapel Hill  
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Chapel Hill, NC 27599-7016

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[www.med.unc.edu/htcenter](http://www.med.unc.edu/htcenter)  
After hours/weekend call  
Hematologist on call: 984-974-1000

## Strengthening Activities

### General Strengthening Tips

1. If your body does not have enough flexibility to perform the below stretches as demonstrated, work within your range of motion or contact your HTC PT and they will guide you on how to adapt this stretch for you.
2. When you are strengthening, if you feel your muscles tighten and a mild burn that should stop when you stop doing the exercise. The feeling should never go above a 2/10 on a 1-10 scale. Strengthening should never cause pain.
3. Stretch gently (5-10 minutes) before you begin strengthening exercises.
4. If you feel yourself losing the correct form, stop, rest and restart after your muscles have recovered.
5. While stretching can occur daily, strengthening should occur 3-4 times a week, generally.
6. If you are so sore after exercising it is limiting your range of motion or you notice bruising or swelling, contact your HTC immediately.
7. If the action of the exercise is too difficult, do not give up completely. Try simply holding the starting position and slowly increase the difficulty of the exercise. Your HTC PT can help you with adapting the exercise for you. Call the PT ☺.

### Scapular Retractions

Start

End



Squeeze your shoulder blades together, hold as recommended and release.  
You do not need to clasp your hands.  
Hold for 5 seconds, repeat 10 times. Do 3 sets.

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Updated 4/21/2020  
All pictures from Physioteq.org

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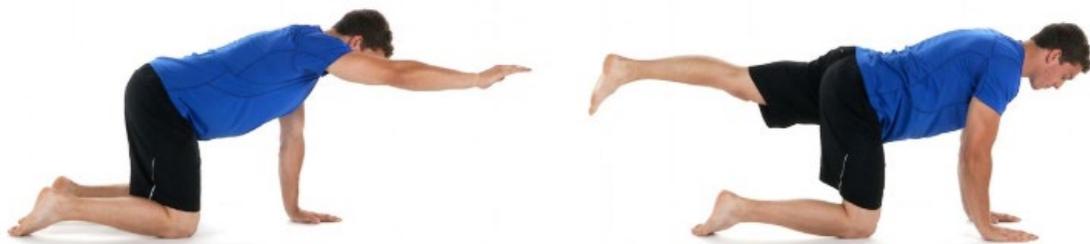
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### Core Strengthening

Start

End



Begin on all fours with your hands under your shoulders and knees under your hips.  
Keep your back straight and head in line with the spine.  
Extend one arm and hold for 5 seconds, then return to neutral.  
Extend the opposite leg and hold for 5 seconds, then return to neutral.  
Make sure your arm and leg are leveled with your back when you lift.  
Progress to extending both arm and leg out together (L arm/R leg followed by R arm/ Left leg)

### Table Push-ups

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Start

End



Start in a plank position against a table or a piece of stable furniture with your hands shoulder width apart.

Your body should be at a 45° angle with the ground.

With your body stable and completely straight, bend the arms to bring the chest close to the table.

Push-back to the starting position.

Keep your chin tucked during the exercise.

Perform 3 sets of 10 repetitions

If too difficult: Start with pushups against the wall, progress down to table top.

If too easy: Begin with holding push up position only. When can hold for 30 seconds, progress to true Push-up. Start on the ground and Press up to push up position. Place your knees down and start from the beginning position.

When you can keep your body in a straight plank position for whole “pushup,” try full traditional push up.

Putting your feet up on a box/table with hands below are called inverted pushups and they are very straining on elbows and shoulders. Keep this in mind.

### Plank

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Start

End



Start in all fours, then prop yourself up on your forearms and toes, with your chin tucked in. Lift up your body, creating a straight line with your body. Heels together and toes together. Maintain the position without arching the lower back.

Do with heels against a wall- make sure form is good.  
Repeat plank 3 times a long as you can (maximum 1 minute each)

There are many variations of plank. If on toes is too difficult, start on your knees.

### Bridges



Lie on your back with your knees bent.  
Contract your buttocks to lift your hips off the ground until your trunk is aligned with your legs.

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Slowly return to the initial position and repeat.  
Repeat 3 sets of 10 with 3-5 second hold at top of each bridge.

If this is too easy, try one of the below variations:



### Squats

#### Level 1

Start

End



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Bend your knees to 45 degrees and lean your trunk slightly forward.  
Hold that position while ensuring that your head is in line with your trunk.  
If you feel unsteady, you can perform the above while holding onto a chair for support.  
To progress, bend your knees to 90 degrees.  
Perform 3 sets of 10.

### Level 2

Start

End



Stand in front of a table with a chair behind you.  
Hold the table as needed while you slowly sit back into the chair, keeping your back straight, and bending at the hips only (no round back).  
Then, stand back up, bending at the hips, pushing through your heels, activating the glutes and the abdominals.  
Perform 3 sets of 10.

### Level 3

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Start

End



Stand with your feet slightly more than shoulder-width apart.

Keep your weight back on your heels. Work on pushing your heels into the ground, as if you are trying to spread the floor apart.

Bring your arms out in front as you begin pushing your butt behind you. Keep your back in extension.

Keep pressing your hips back as you continue to bend your knees deeper into the squat until 90 degrees.

Press through your heels to come back up with your arms at your sides.

Perform 3 sets of 10.

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