

Physical Therapy Department

KC Sport Exercises



P.T. WHO TAUGHT MY CLASS

P.T.'S PHONE NUMBER

This brochure contains all of the exercises you were taught in the KC Sport Class. In addition there are some extra exercises to help you progress as your knees become stronger. We want you to feel better as quickly as possible. Doing the exercises correctly and regularly will speed your healing process. Continuing to do these exercises as part of your daily routine will prevent further problems from developing and keep your legs and knees strong.

Before you begin, there are a few principles you should keep in mind:

1. Although one knee may be giving you more trouble, it is important that you **do all of the exercises on both legs.**
2. Exercise your knee **through** its **available range-of-motion.**
3. Stretch when you **first** notice any **signs of discomfort** as well as **before or after** any **sport.**
4. Usually, the **more stretching** you do, the faster **you will feel better.**
5. **Strengthening** the muscles around your knee **will add stability and lessen your chances of future injury.**
6. The **stretching** exercises should be done **twice per day.**
7. Do the **strengthening** exercises **3 times per week** starting with 1 set of 15 repetitions and gradually increasing to 3 to 4 sets of 15 repetitions or to muscle fatigue, if directed.
8. **Aim to reach the highest level** with each of the exercises for maximum benefit.
9. **Stop any single exercise if it increases your pain. Discuss this with your therapist.**

My personal plan for exercise:

STRETCHING EXERCISES

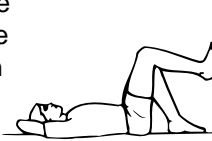
Start with the stretches. Follow the directions for each exercise. With some exercises, you can choose one option or the other, depending upon your preference. Some exercises are arranged in a series of steps. You need to do all of the steps in order to complete the exercise. Other exercises are arranged in a progression of **levels**. Start with **Level 1** and advance to the **next level** when you no longer feel a stretch in the first level. Do each exercise smoothly and slowly. Hold each position for 30 to 60 seconds and repeat each stretch 3 times. Remember to do all stretching exercises twice per day.

Quad Stretch

Level 1: Sit on a chair. Keep both feet on the floor. Now slowly bend your leg by sliding your foot back under the chair until you feel the stretch in your knee joint. Gradually increase the bend as you feel the knee joint relax. When this stretch becomes easy, move on to the next level.



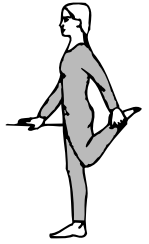
Level 2: Lie on the floor with both knees bent. Place one foot on the wall. Slowly slide your foot down the wall toward the floor until you feel the stretch in your knee. You can increase the stretch by assisting with your other leg. Also, use your other leg to slide your foot back up the wall.



Level 3: **There are 2 ways you can do this stretch:**
Option 1: Lie on your stomach and bend one knee as much as possible. Make sure you keep your hip and thigh flat and don't arch your back. You will feel a stretch in the front of your thigh. You can increase your stretch by placing a towel around your ankle and then gently pulling your heel closer to your buttock once you have your knee bent.



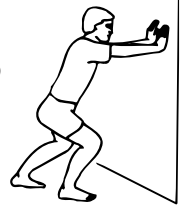
Option 2: Stand on one leg. Bend your other leg and pull your foot toward your buttock. Note that your bent knee is pointing to the floor and your legs are parallel. You will feel the stretch in the front of your thigh. For safety, hold onto a stable surface so that you can maintain your balance.



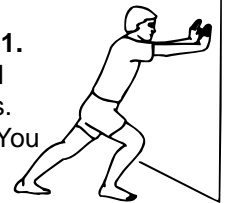
Calf Stretch

There are 2 steps to this stretch:

Step 1: Stand facing a wall. Take a step forward with one leg. Keep your back straight, both feet pointed forward and both heels on the floor. Now lean into the wall by supporting yourself with outstretched arms. Let **both knees bend** as far as possible without either heel coming off the floor. You will feel a stretch in the calf of the leg that is further away from the wall.



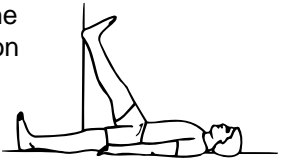
Step 2: Start in the same position as you did for **Step 1**. The difference is that **your back knee should now be kept straight** as the front knee bends. Again, both heels should remain on the floor. You will feel this stretch more behind your knee.



Ham Stretch

There are 2 ways you can do this stretch

Option 1: Lie on the floor with one leg stretched up on the wall with your knee straight. Your other leg is on the floor through the doorway. Scoot your buttocks toward the wall until you feel the stretch in the back of your thigh of the leg that is on the wall. As your leg relaxes, scoot closer to the wall. Keep your knees straight.



Option 2: Lie on your back and do a posterior pelvic tilt. Keep one leg straight. Bend your other knee. Place your hands around the thigh of your bent knee and pull that knee to hip level. Now slowly straighten your knee, raising your foot to the ceiling, until you feel the stretch behind your thigh.

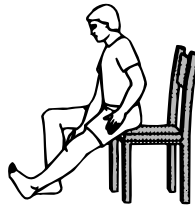


STRENGTHENING EXERCISES

Now move on to the strengthening exercises. Each exercise should be done smoothly and slowly. Some exercises are to be done in **sets of repetitions**. Start with 1 set of 10 to 15 repetitions each session. When you find 1 set of each exercise easy, progress to 2 sets of 10 to 15 repetitions each session. Likewise, once 2 sets are easy, advance to 3 sets of 10 to 15 repetitions each session. When 3 sets are easy, move on to the next level of difficulty. Other exercises are to be done until you **fatigue** or lose the form of the original exercise position or feel increased pain.

VMO Strengthening

LEVEL 1: Sit on a chair. Stretch **one leg** in front of you with your **knee straight**. Now place one hand on the thigh muscle just above the inside of your knee and the other hand on the thigh muscle just below the outside of your hip. Contract your thigh muscle so that the inside tightens first and the outside is as relaxed as possible. Hold 5 seconds. Relax and repeat. When this becomes easy, move on to level 2.



LEVEL 2: Repeat level 1 with your knee bent.



LEVEL 3: Now, repeat level 1 in a standing position.

NOTE: Return to a full upright standing position after each repetition in order to rest your back.



One Quarter Squats

Stand with your feet shoulder-width apart. Hold your hands behind your back and keep your back straight. Pretend you are sitting down in a chair as you slowly bend your knees out over your toes while keeping your heels in contact with the floor. Note that your knees should not bend inward. You will actively tighten the VMO in the front of your thighs. **Slowly** return to your starting position and repeat until you fatigue, with your goal being 3 to 4 minutes.



Single Leg One Quarter Squats

There are 4 steps to this exercise.

Progress in the order shown. You will feel the muscles in the front of your thigh tightening.

Step 1: Shift your weight onto one leg while keeping your opposite forefoot on the floor for balance. Keep your back straight. Pretend you are sitting down in a chair as you slowly bend your knee out over your toes while keeping your heel in contact with the floor. Slowly return to starting position and repeat movement to muscle fatigue.



Step 2: Stand in the same position as in step 1. Now only your toes are on the floor for balance. Repeat the movement of step 1.



Step 3: Now progress to full weight on your leg while using only your fingertip on the wall for balance and repeat step 1.



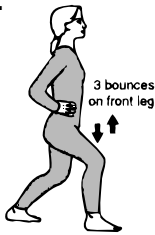
Step 4: Now, with full weight on your leg and without any other assistance for balance, repeat step 1.



Lunges

LEVEL 1: Partial Lunge – There are 2 steps to this exercise.

Step 1: Stand up straight with your hands on your hips or holding a stick behind your shoulders. Take a large step forward with one leg and allow your front knee to **slightly** bend directly over your foot. Slowly bounce up and down 3 times, then step back to starting position.

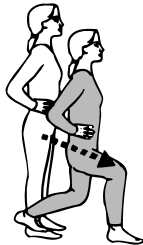


Step 2: Now, step backward with your other leg and allow your front knee to **slightly** bend. Slowly bounce up and down 3 times, then step back to starting position.

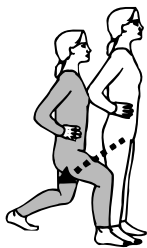


LEVEL 2: Full Lunge – There are 2 steps to this exercise.

Step 1: Stand up straight with your hands on your hips or holding a stick behind your shoulders. Take a giant step forward with one leg and allow your front knee to bend directly over your foot. You will feel the top thigh muscle of your front leg tighten. Step back to starting position.

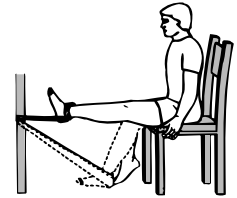


Step 2: Now, step backward with your other leg and allow your front knee to bend. You will feel the top thigh muscle of your front leg tighten. Step back to starting position.



Ham Curls

Place one knotted end of theraband under a closed door, as shown, or around a table leg or other heavy object. Now sit on the edge of a chair facing the door or table and place the looped end of the theraband around the ankle of one leg. Start with your knee straight and pull your foot back as far as possible under the chair by bending your knee. You will feel resistance from the theraband. Do this exercise slowly and release the tension in the theraband very slowly as you return to the starting position. The muscle in the back of your thigh will tighten as you do this exercise.



Two Leg Heel Rise

Slowly rise up on the balls of your feet. You will feel the muscles in the back of your calves tightening. Slowly return to starting position and repeat. For safety, hold on to a stable surface so that you can maintain your balance.



One Leg Heel Rise

Balance on one leg. Now slowly rise up on the ball of the foot of your standing leg. You will feel the muscles in the calf of your straight leg tightening. Slowly return to starting position and repeat. For safety, hold on to a stable surface so that you can maintain your balance.



COORDINATION & BALANCE EXERCISES

Now move on to the coordination and balance exercises. Each exercise should be done smoothly. Work to fatigue, form failure or pain with each exercise. Begin doing each exercise for 10 seconds without stopping to rest. Your goal is to work up to 2 minute sessions before resting.

Double Leg Hop

Hop in place on both feet. Be sure to keep your knees over your toes. You may want to hold your hands behind your back to keep your back straight. Keep your knees soft at all times. Your toes just barely need to clear the floor.



Single Leg Hop

Stand on one leg only. Hop in place on this leg. Initially, you may use one hand for balance against a wall; however, work up to balancing without holding on to anything. Remember to keep your knees over your toes. Holding your hands behind your back will keep your back straight.

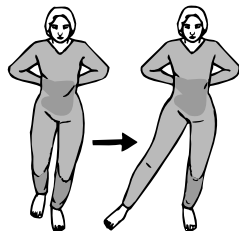


Heiden Hop

Stand with your feet hip-width apart and crouch slightly. Hop side-to-side landing on one foot and completely unweighting your other foot.

Progress as follows:

- increase the distance of your hop
- increase the depth of your crouch
- increase the speed of your hopping but maintain the distance of your hop



Blaney Hop

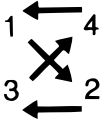
LEVEL 1 (2 legs)

Stand on two legs and hop as follows. While doing this, keep your knees soft and over your toes. Start slowly to get your form, then increase your speed.

- hop forward and back
- hop side-to-side
- hop in diagonals
- hop in a figure 8



Note the figure of 8 diagram which you can follow.



LEVEL 2 (1 leg)

Repeat level 1 (exercises a-d) on one leg.

Rest.

Repeat with your other leg.



CONCLUSION

Remember:

- Although one knee may be giving you more trouble, it is important that you do **all of the exercises on both legs.**
- Stretch when you **first** notice any **signs of discomfort** as well as **before or after any sport.**
- Aim to reach the highest level** with each of the exercises for maximum benefit.
- Continue to do the stretches every day.**
- Stop any single exercise if it immediately increases your pain and discuss this with your therapist.**

If you are able to do all of these exercises without pain at the highest level, you should be able to resume all of your normal activities, including those sports you enjoyed before your knee injury, such as walking, hiking, biking, swimming and jogging. **Get out there and have fun!** Your partners in health at Kaiser Permanente wish you a speedy recovery.

NOTES

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The information presented here is not intended to diagnose health problems or to take the place of professional medical care. If you have persistent health problems or if you have further questions, please consult your health care provider.