

# Kinesiology of Exercise Quizzes

Based on the Work of Dr. Michael Yessis



Volume 2 – The Knee Joint

**KinX Learning**

Kinesiology of Exercise Quizzes by KinX Learning

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1. Which are possible movements of the knee joint?

A. Rotation and elevation

B. Abduction and adduction

C. Flexion and abduction

D. Flexion and extension

[ANSWER](#)

2. What are the major muscles of the thigh that make up the hamstring muscle group?

A. Rectus femoris, biceps femoris

B. Rectus femoris, vastus lateralis, vastus medialis, vastus intermedius

C. Semitendinosus, semimembranosus, biceps femoris

D. Semitendinosus, semimembranosus, rectus femoris

ANSWER

3. What are the major muscles of the thigh that make up the quadriceps femoris muscle group?

A. Rectus femoris, biceps femoris

B. Rectus femoris, vastus lateralis, vastus medialis, vastus intermedius

C. Semitendinosus, semimembranosus, biceps femoris.

D. Semitendinosus, semimembranosus, rectus femoris

[ANSWER](#)

4. Which of the following exercises includes knee extension?

A. Knee Curl

B. Standing Knee Curl

C. Squat

D. A and B

[ANSWER](#)

5. Which of the following exercises includes knee flexion?

A. Knee Curl

B. Standing Knee Curl

C. Squat

D. A and B

[ANSWER](#)

6. At the lower end this muscle joins the tendons of the four vastus muscles merging together onto the patella bone and surrounding ligaments.

A. Biceps femoris

B. Rectus femoris

C. Semitendinosus

D. Semimembranosus

[ANSWER](#)



7. What is the largest muscle of the hamstring group and has two heads?

A. Biceps Femoris

B. Rectus Femoris

C. Semitendinosus

D. Semimembranosus

[ANSWER](#)

8. What muscle lies beneath the rectus femoris?

A. Vastus lateralis

B. Vastus medialis

C. Vastus intermedius

D. Gracilis

ANSWER

9. In the knee curl exercise the hamstring involvement is greatest in which part?

A. Lower

B. Upper

C. Middle of the hamstring

D. No involvement

[ANSWER](#)

10. Which 2 muscles together are also known as the medial hamstrings?

A. Semitendinosus, semimembranosus

B. Rectus femoris, biceps femoris

C. Vastus lateralis, Vastus medialis

D. Vastus medialis, vastus intermedius

[ANSWER](#)

- 
- Answers
- 
1. D
- 
2. C
- 
3. B
- 
4. C
- 
5. D
- 
6. A
- 
7. A
- 
8. C
- 
9. A
- 
10. A
-

Two major movements are possible in the knee joint: flexion and extension. Medial and lateral rotation takes place only when the knee is flexed. This allows the foot to turn when it is free to move and the trunk to turn when the foot is fixed to the ground, which often occurs when wearing cleats or spikes. If rotation occurs in the knee when the leg is straight, it may cause knee injury.

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D

Flexion and extension

The hamstring muscle group includes the semitendinosus, semimembranosus, and the biceps femoris. These muscles flex the knee.

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## C

Semitendinosus,  
semimembranosus,  
biceps femoris

The quadriceps femoris group, located on the anterior (front) side of the thigh the rectus femoris, vastus lateralis, vastus medialis, and vastus intermedius muscles, which extend the knee.

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## B

Rectus femoris, vastus lateralis, vastus medialis, vastus intermedius



In the squat, extension occurs in the knee joint during the ascent (up phase). In this action, the thigh moves away from the shin as the leg straightens. The major muscle involved is the quadriceps femoris group.

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# C

Squat

Knee curls involve the hamstring muscle group located on the back side of the thighs. The action in this exercise is knee joint flexion, in which the back of the shin moves toward the back of the thigh.

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## D

A and B , Knee Curl  
and Standing Knee  
Curl

The rectus femoris is a large muscle positioned straight down the front of the thigh. It originates on the spine of the ilium bone of the pelvic girdle. Because of this attachment, it has an action at the hip joint as well as the knee joint. At the lower end the rectus femoris joins the tendons of the four vastus muscles merging together onto the patella bone and surrounding ligaments.

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# B

Rectus Femoris

The hamstring muscle group includes the semitendinosus, semimembranosus, and the biceps femoris. These muscles flex the knee. The biceps femoris is the largest muscle of the hamstring group and has two heads.

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# A

Biceps Femoris

The vastus medialis is located on the medial (inner) side of the thigh, somewhat lower than the lateralis, and is partially covered by the rectus femoris. It originates on the medial side of almost the entire shaft of the femur.

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## B

Vastus Medialis

Understand that the hamstring muscle, because it crosses both joints, does not contract maximally at both ends when an exercise is being done at the knee or hip. Thus, the knee curl exercise involves only the lower tendons and hamstring. That does not mean that the hamstring is divided into different parts. It is not. The hamstring muscle is one long, continuous muscle. The activity, however, is greatest at the lower end in this exercise.

A

Lower

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Both the semimembranosus and semitendinosus extend the thigh at the hip joint and assist in hip joint medial rotation. Because their tendon of insertion is on the medial side of the knee joint, they are known as the medial hamstrings. They provide lateral stability to the knee joint.

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# A

Semitendinosus,  
semimembranosus

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