



# Orthopedics

UNIVERSITY OF COLORADO

## THE VIRTUAL PHYSICAL EXAM PATIENT INSTRUCTIONS

Your provider will begin by completing your standard history as you would with a live patient visit. A great deal of information can be gained from discussing your symptoms and complaints.

### ITEMS YOU WILL NEED

- A standard kitchen or dining chair
- A gallon of milk or heavy book
- A full sized sheet of scrap paper
- An rubber band or hair tie

### THE NECK AND UPPER EXTREMITIES

#### **Inspection**

- 1) To begin, stand up and back away from the camera.
- 2) Once you are in full view, point specifically to the painful areas on your body (Figure 1).
  - If your pain spreads to a specific area, trace the area of pain with one finger from where it starts, to where it ends.
- 3) For post-operative visits, make sure you show your incision (scar) to the provider so they can look for signs of infection.



#### **Sensory Exam**

To complete a normal sensory (touch) exam, your provider would lightly touch different areas of your arms and ask if you can feel their touch. Given the obvious inability to touch you through the computer, we need you, the patient, to point to any areas where you have pain, numbness, burning or tingling sensations.

Your provider will guide you by describing landmarks on your body that could match specific nerve problems from your neck.

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#### DEPARTMENT OF ORTHOPEDICS

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## **Motor Exam**

We also need to assess your strength to look for any signs of weakness.

Begin by standing at a table with a kitchen or dining room chair. This will be useful for balance during certain exercises.

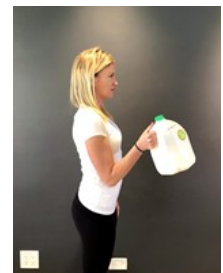
### **Deltoid (C5)**

- 1) Retrieve a full gallon of milk or heavy book.
- 2) Hold the gallon of milk in one hand with your arm resting at your side (Figure 2A).
- 3) Slowly raise the object to the side until it is level with your shoulder (Figure 2B).



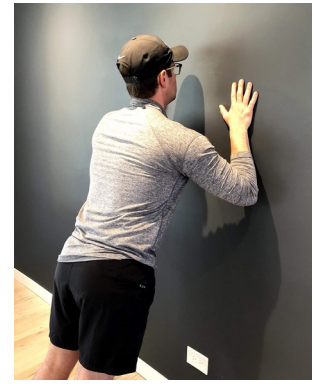
### **Biceps (C6)**

- 1) Again, retrieve a full gallon of milk or heavy book.
- 2) Hold the gallon of milk in one hand with your arm resting at your side (Figure 3A).
- 3) Slowly raise the object towards your shoulder while bending at the elbow (biceps curl) (Figure 3B).



### **Triceps & Wrist Flexion (C7)**

- 1) Stand and face a nearby wall. You should be approximately 18 inches away from the wall
- 2) Place your palms on the wall, level with your shoulders and make sure your elbows are straight (Figure 4A).
- 3) Slowly lean into the wall while allowing your elbows to bend (Figure 4B).
- 4) Now, straighten your arms until they are back to the fully straight position.



***\*\*Alternatively, your provider may ask you to rise from a seated position while pushing off the armrests of a chair.***

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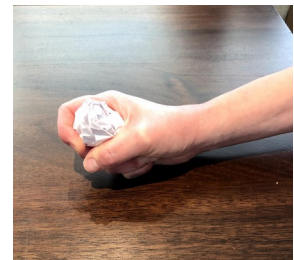
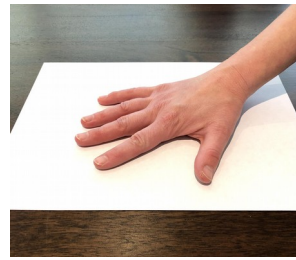


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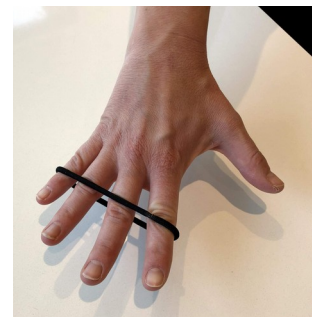
## Finger Flexion & Grip Strength (C8)

- 1) Retrieve the piece of paper (Figure 5A).
- 2) Using one hand, crunch the paper into a small, tightly packed ball (Figure 5B).
- 3) Now repeat the process with the opposite hand.



## Finger Abduction (Spreading Your Fingers) (T1)

- 1) Retrieve a rubber band or elastic hair tie
- 2) Place the elastic band around your index to (small) pinky fingers (Figure 6A).
- 3) In full view of the camera, fully separate your fingers while resisting the elastic band (Figure 6B).
- 4) Now repeat the process with the opposite hand.



## Reflexes

Your provider will not be able to check your reflexes.

## Special Tests

### Rapid Hand Movements

- 1) Raise your hands in full view of the camera.
- 2) Open and close your fists as quickly as possible
  - Under normal circumstances, you should be able to perform this maneuver 20 times in 10 seconds

### Romberg Test

- 1) Stand comfortably in front of the camera with your feet together
  - If you are concerned about falling off balance, ask a family member to stand next to you in case you start to fall.
- 2) Raise your arms to the side to the level of your shoulders (Figure 7).
- 3) When ready, your provider will ask you to close your eyes.



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## THE BACK AND LOWER EXTREMITIES

### **Inspection**

- 1) To begin, stand up and back away from the camera.
- 2) Once you are in full view, point specifically to the painful areas on your body.
  - If your pain spreads to a specific area, trace the area of pain with one finger
- 3) For post-operative visits, make sure you show your incision (scar) to the provider so they can look for signs of infection.

### **Sensory Exam**

To complete a normal sensory (touch) exam, your provider would lightly touch different areas of your legs and ask if you can feel their touch. Given the obvious inability to touch you through the computer, we need you, the patient, to point to any areas where you have pain, numbness, burning or tingling sensations.

Your provider will guide you by describing landmarks on your body that could match specific nerve problems from your lower back.

### **Motor Exam**

We also need to assess your strength to look for any signs of weakness.

Begin by standing at a table with a kitchen or dining room chair. This will be useful for balance during certain exercises.

### **Psoas (Hip Flexor Muscle) (L2-L3)**

- 1) Stand up, next to your chair. If necessary, you can rest a hand on the back of their chair to provide additional balance (Figure 8A).
- 2) One at a time, raise one leg off the ground as if you are marching in place (Figure 8B).



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## Quadriceps (Thigh Muscle) (L3-L4)

- 1) Stand upright next to your chair for balance.
- 2) Raise one foot off the ground (Figure 9A).
- 3) Slowly bend your knee into a squat (to at least 45°) and then return to a full straight-legged position (Figure 9B).
- 4) Now repeat the process with the opposite leg.

*\*\*Alternatively, if you cannot safely perform a single-leg squat, your provider may ask you to rise from a seated position without assistance.*



## Tibialis Anterior (Shin Muscle) (L4-L5)

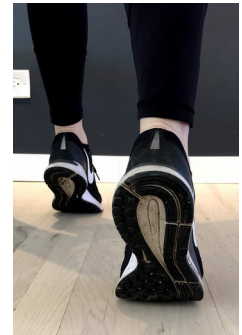
- 1) Stand up and back away from your chair.
- 2) In full view of the camera, stand on your heels (Figure 10).
- 3) Walk on your heels directly away from the computer screen



## Gastrocsoleus Complex (Calf Muscle) (S1)

- 1) Stand upright again, use your chair for balance.
- 2) Raise one foot off the ground.
- 3) With the opposite leg, stand full on to your tip toes.
- 4) Now repeat the process with the opposite leg.

*\*\*Alternatively, your provider may ask you to perform a toe walk in which you walk in direct view of the camera on your toes (Figure 11).*



## Reflexes

Your provider will not be able to check your reflexes.

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## ***Special Tests***

### ***Heel-to-Toe Walk***

- 1) Stand up and position yourself a few feet away from the camera.
- 2) Walk directly away from their camera in a heel-to-toe pattern pretending as if you were walking along a balance beam



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