



Patient Name: Jane Doe

Date of Visit: 03/01/2022

To Whom it May Concern: My name is Dr. Shevin Pollydore. I am a physician licensed to practice medicine in the State of Georgia, continuously and without interruption since 1998. My education and training is as follows. I attended College at Princeton University graduating in 1990 and received my MD degree from Howard University College of Medicine in Washington DC in 1994. I completed Residency Training Program at Columbia University Hospital in New York in 1998 and a Fellowship at the Hughston Sports Medicine Clinic in 1999 under the tutelage of Dr. Jack Hughston who is considered worldwide as the "father" of Sports Medicine. My specialty is Physical medicine and rehabilitation (PM&R), also called physiatry /fi-zai-atr/ or rehabilitation medicine. It is a branch of medicine that aims to enhance and restore functional ability and quality of life to those with physical impairments or disabilities. A physician having completed training in this field is referred to as a physiatrist or rehab medicine specialist. Physiatrists specialize in restoring optimal function to people with injuries to the muscles, bones, tissues, and nervous system. I am Board Certified in Physiatry and am also Board Certified in Pain Management. Board certification is the process by which a physician demonstrates through either written, practical, and/or simulator-based testing, a mastery of the knowledge and skills within a particular area of medicine. In addition, I hold a certificate in Orthopedics after having completed an Orthopedic Fellowship training program at the Hughston Orthopaedic Clinic. I am the Past President for the Georgia Society of Interventional Pain Physicians (**GSIPP**)

Mrs. Doe has been a patient of mine since 10/11/2021. I had the opportunity to treat Mrs. Doe following a Motor Vehicle Accident (MVA), which she reported as occurring on 09/30/2021.

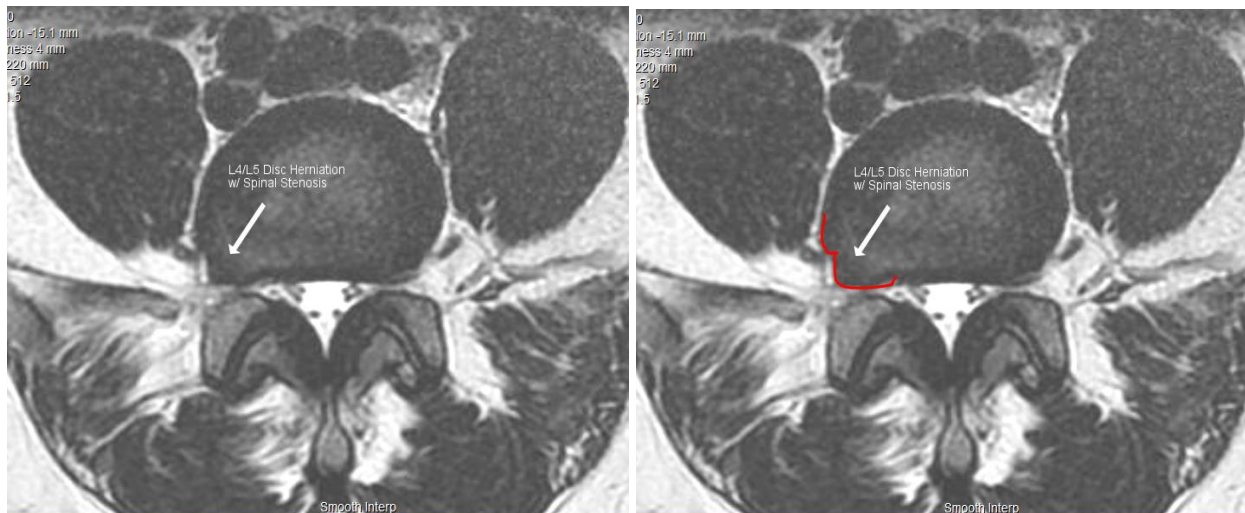
Mrs. Doe was a restrained driver of a brown 2013 Kia Sportage (SUV). She said that she was driving through an intersection at about 10 miles per hour and as she was driving, she saw a 4-door sedan possibly Honda grey/white driving from the opposite side about to make a left turn. The Honda car turned and struck her vehicle on the rear driver side.

Mrs. Doe said that she had both hands on the steering wheel trying to brace herself since she said the vehicle coming and didn't have time to stop. Her body was "jerked", but there was no airbag deployment.

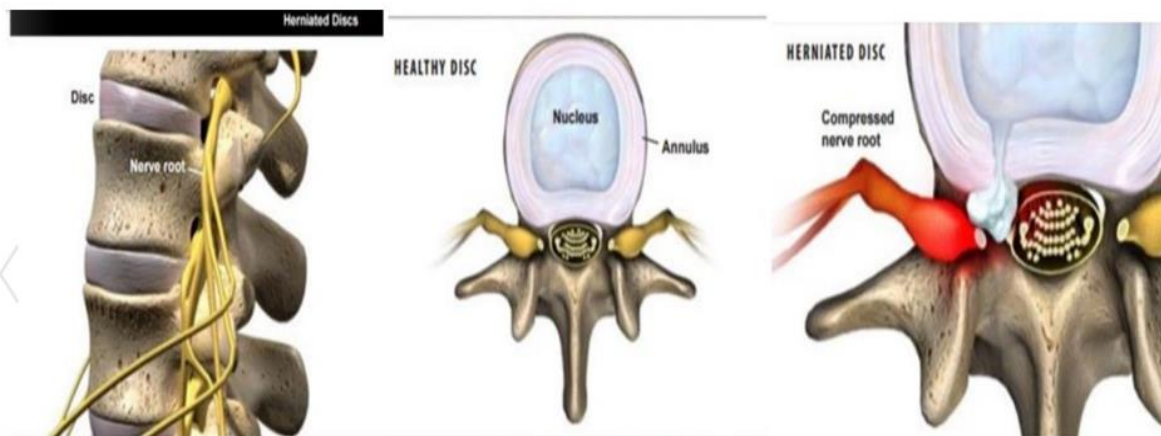
Despite not being totaled, her vehicle nevertheless had to be towed from the scene of the MVA.

Her Current Diagnoses are as follows:

- Lumbar Disc Herniation**- *The spine has a lot of bones (vertebrae) which are named and numbered. The Lumbosacral (Low back and Buttock) Region has Multiple Bones. The L1 vertebra is the first vertebra in the Lumbar Spine (Low Back) and the L5 vertebra is the last vertebra in the Lumbar Spine. The S1 Vertebra is the first Vertebra in the Sacrum (Buttock) Region. Discs are cushions between bones and are named for the bones which surround them. The L4/5 Disc is the Disc between the 4th and 5th Lumbar Vertebrae. The L5/S1 Disc is the disc between the 5th Lumbar (L) Vertebra and the 1st Sacral (S) Vertebra. A disc herniation is a condition where a disc, which is a cushion between the bones in the spine, ruptures and some of the material from the center of the disc 'herniates' and irritates the spinal cord and nerves, causing typically causing Low Back and Leg Pain, as well as numbness and tingling.*
Mrs. Jackson has a right L4-5 herniated disc



Above picture show Mrs. Doe's Lumbar (low back) MRI, right L4/L5 Disc Herniation pushing against the nerve and right shows same disc circled the herniation in red.



Above is an illustration of a herniated disc (next to a healthy disc for comparison)

A bulging disc is a condition in which the nucleus (inner portion) of a spinal disc remains contained within the annulus fibrosus (outer portion), unlike a [herniated disc](#) in which the nucleus leaks out of the disc. This protrusion or bulge can put pressure on the surrounding nerve roots which can lead to pain that radiates down the back and/or other areas of the body depending on the location of the bulging disc. **Mrs. Doe has a disc bulge at L4-5 with an annular tear on the left side. She also has a disc bulge at L2-3, and a disc bulge at L3-4 with an annular tear.**

2. **Spinal Stenosis of lumbar region:** - Spinal stenosis is a narrowing of the spinal column that causes pressure on the spinal cord or narrowing of the openings (called neural foramina) where spinal nerves leave the spinal column. Symptoms often includes pain, weakness, loss of sensation in the arms or legs and difficulty walking. Occasionally there is loss of control of the bowel or bladder.

Spinal stenosis is a narrowing of the spinal canal

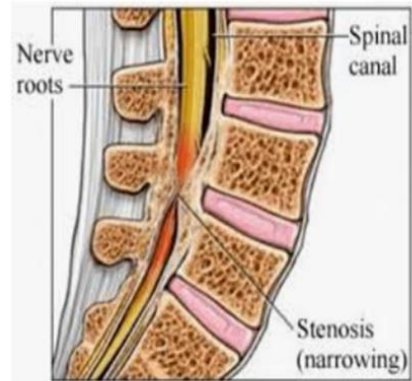
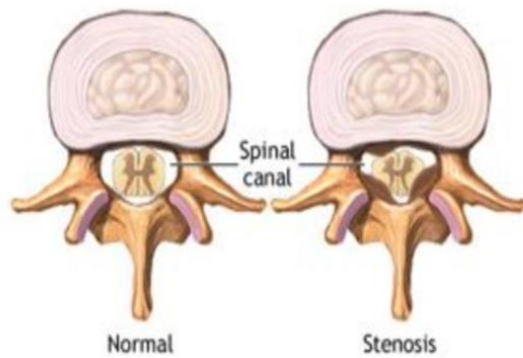
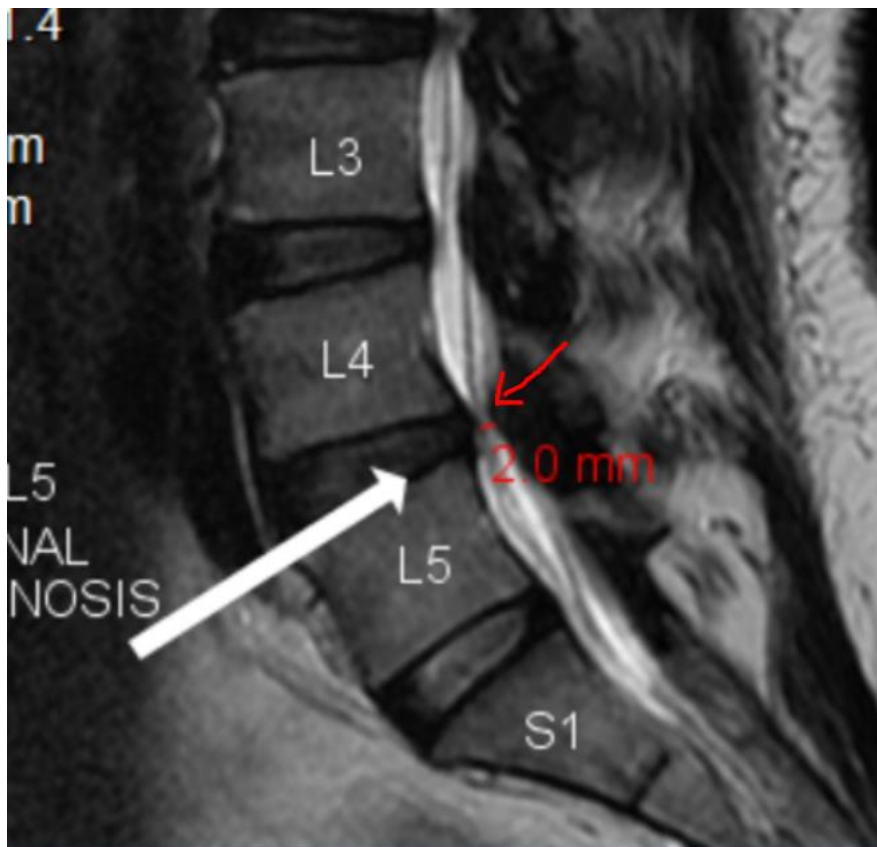
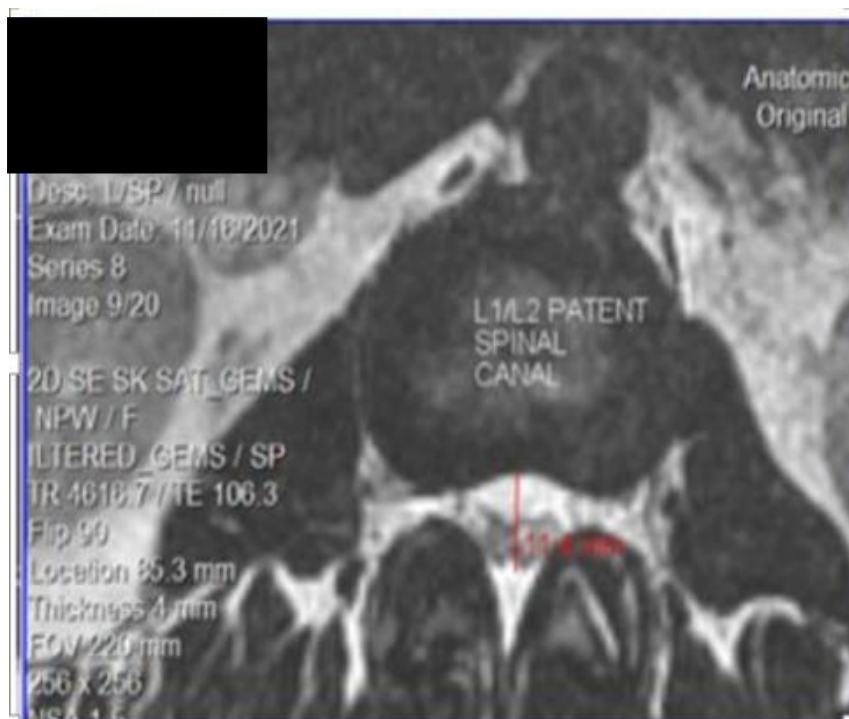


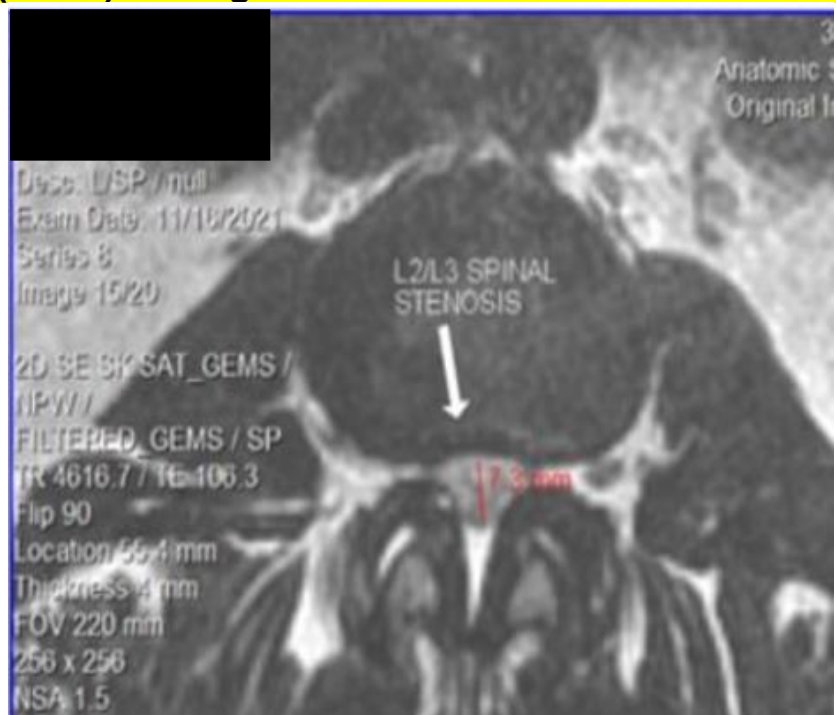
Illustration above shows Spinal stenosis



The image above shows stenosis at the L4-5 level; the right arrow is pointing to the area of narrowing

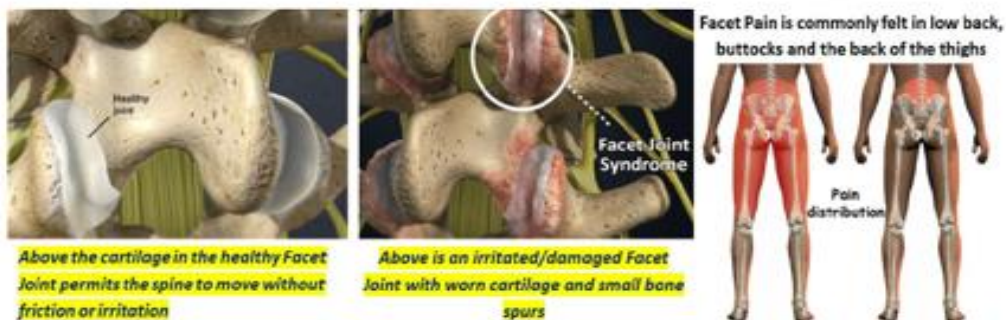


Above picture show Mrs. Doe Lumbar (low back) MRI, left is a healthy disc (L1/L2) and right shows stenosis at the level of L2/L3

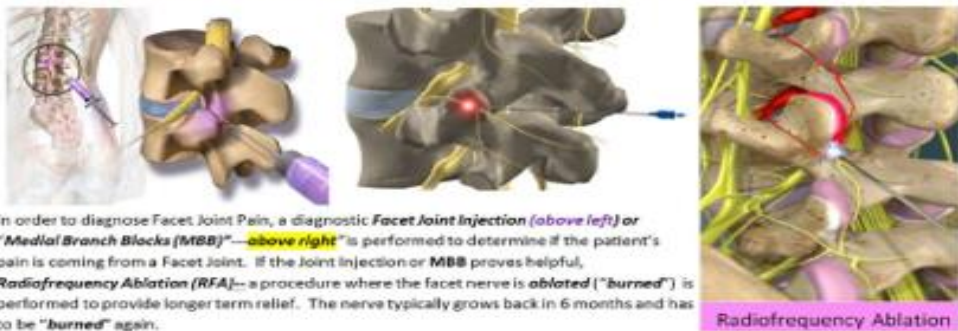


3. Lumbar facet joint pain – Facet joints are hinge-like joints on the side of the spine where the bones from vertebra meet and touches another. They allow the spine to bend properly, but also serve as a barrier preventing one bone from slipping off another. people commonly get pain in the facet joint from 'whiplash' or 'jerking' type movement.

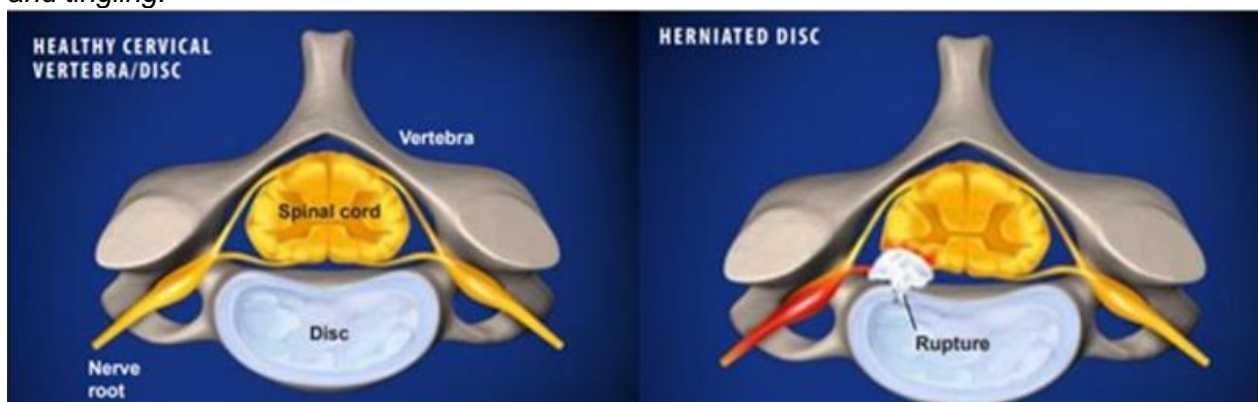
LUMBAR FACET JOINT SYNDROME



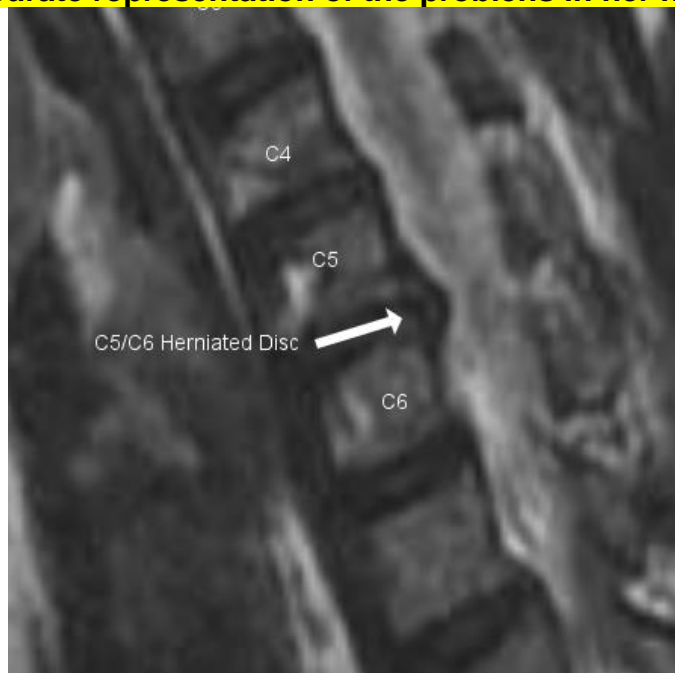
Lumbar Facet Joint Syndrome is a condition where the Facet Joints become irritated, stressed (inflamed) or damaged causing pain in the low back/buttock region and can radiate into the legs. Facet Joint Pain is commonly caused acutely from trauma, such as MVA's or falls and can also develop slowly over time from arthritis (begins in your 20's). Non-Painful Bone Spurs can become painful after trauma when the spur (jagged edge) is "Jammed" into the joint/capsule/cartilage causing pain. Image on right, arrow points to a pre-existing bone spur (jagged edge) which may not be causing pain but Trauma (MVA or Fall) can "Jam" it into the Facet Joint like a piece of broken glass causing damage and severe pain



4. Cervical Disc Herniation *The spine has a lot of bones (vertebrae) which are named and numbered. The C1 vertebra is the first vertebra in the cervical spine (Neck) and the C7 vertebra is the last vertebra in the neck. Discs are cushions between bones and are named for the bones which surround them. The C4/5 disc is the disc between the 4th and 5th Cervical vertebrae. The C6/7 disc is the disc between the 6th Cervical (C) vertebra and the 7th Cervical vertebra. A disc herniation is a condition where a disc, which is a cushion between the bones in the spine, ruptures and some of the material from the center of the disc 'herniates' and irritates the spinal cord and nerves, causing typically causing neck and arm pain, as well as numbness and tingling.*

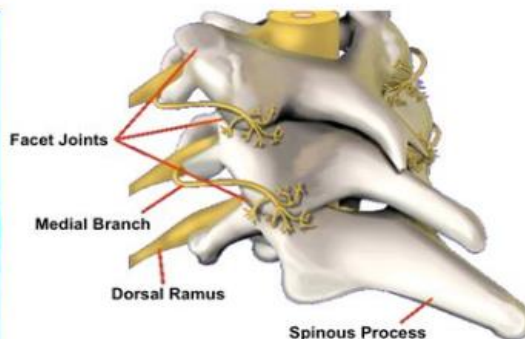


Above illustration shows to the right a healthy cervical (neck) next to a Herniated Disc on the left, these pictures not of Mrs. Jackson's spine, but are a true and accurate representation of the problems in her neck.

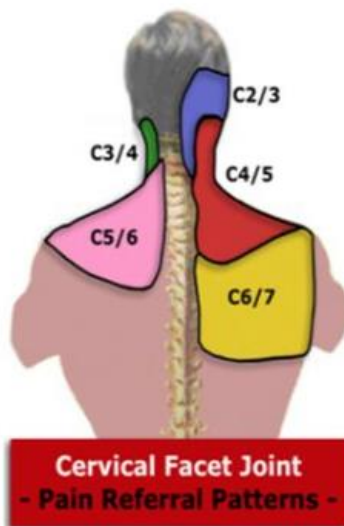


Above is a picture of Mrs. Doe's MRI showing a Cervical Disc Herniation at the level of C5/C6.

5. Cervical facet joint pain - Facet joints are hinge-like joints on the side of the spine where the bones from vertebra meet and touches another. They allow the spine to bend properly, but also serve as a barrier preventing one bone from slipping off another. people commonly get pain in the facet joint from 'whiplash' or 'jerking' type movement.

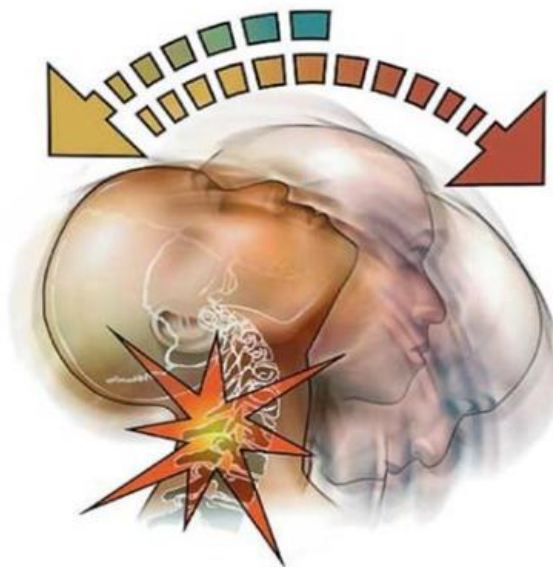


Above is an illustration of a Facet Joint in the Cervical Spine (neck region). Patients usually start with a dull ache in the neck which can become very painful. It is usually worse with movement such as turning the neck to the left or right or looking over the shoulder into their "blind spot" while driving. Facet Joint Pain in the neck is comonly felt in the shoulder or upper arm (see pain referral patterns below). Facet Joint pain high up in the neck can cause pain shooting into the head leading to severe headaches (see C2/3, C3/4 and C4/5 referral patterns below)



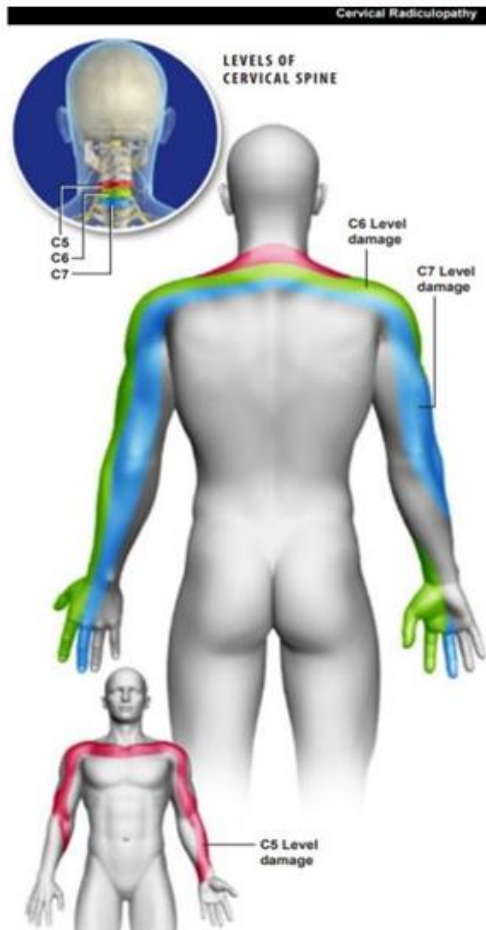
**Cervical Facet Joint
- Pain Referral Patterns -**

The patient may feel pain distant from the facet joint that is affected



Facet Joint pain is commonly caused by trauma such as car accidents (MVA's) or Falls.

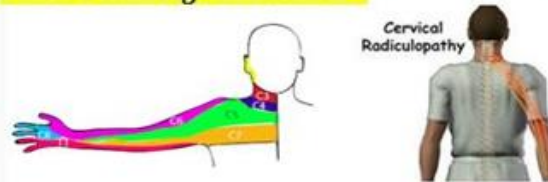
6. Skin sensation disturbance –



Numbness and tingling: (Numbness is a partial or total lack of sensation in a part of the body and is a symptom of nerve damage or dysfunction. This essentially means that the patient has a nerve in the arm or leg that is getting irritated or damaged and causing pain or an unpleasant sensation).

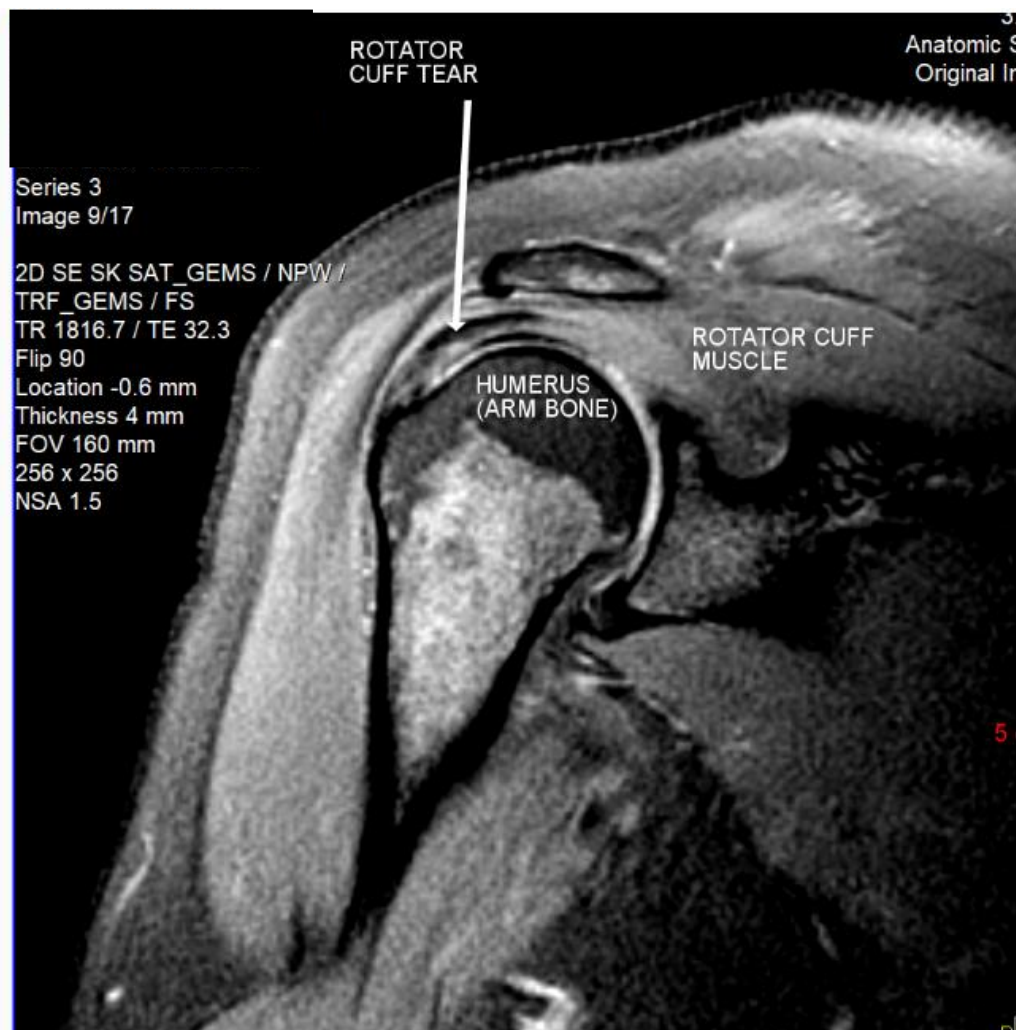
Radiculitis is inflammation, irritation or damage to a nerve in the spine. It is commonly caused by conditions in the spine such as a herniated disc (see below), or stenosis (narrowing) of the spinal canal. Cervical Radiculitis (also called Radiculopathy) is damage to nerves in the neck.

The illustration to the left shows Radiculitis symptoms. The patient typically has pain/numbness in a particular pattern down the arm depending on which nerve is damaged in the Neck. Damage to the C5 nerve sends pain/numbness to the shoulder and upper arm. Damage to C6 nerve sends pain/numbness into the thumb and index finger. Damage to the C7 nerve sends pain and numbness to the middle finger and damage to the C8 nerve sends pain to the small finger. Below is a normal cervical disc next to a Herniated Disc which is pushing on a nerve causing "Radiculitis".



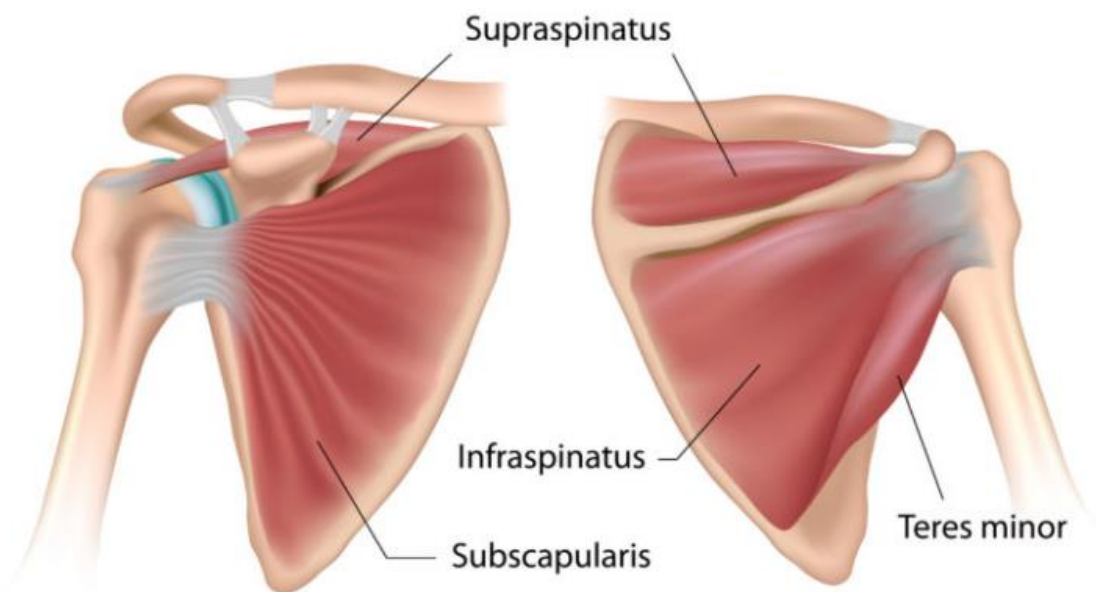
Mrs. Doe has numbness and tingling in her right arm.

7. Traumatic Right Rotator Cuff Tear The rotator cuff is made up of four muscles that help move and stabilize the shoulder joint. Damage to any one of the four muscles or their ligaments that attach the muscle to bone can occur because of an acute injury, this can cause significant pain and disability with range of motion or use of the shoulder joint. The most common rotator cuff muscle torn is called the Supraspinatus. Common symptoms of a rotator cuff tear include:
Pain at rest and at night, particularly if lying on the affected shoulder; pain when lifting and lowering the arm or with specific movements; weakness when lifting or rotating the arm and or crepitus or crackling sensation when moving the shoulder in certain positions.



Above is a picture of Mrs. Doe's Right Shoulder MRI showing the Rotator Cuff Tear.

Rotator Cuff Muscles

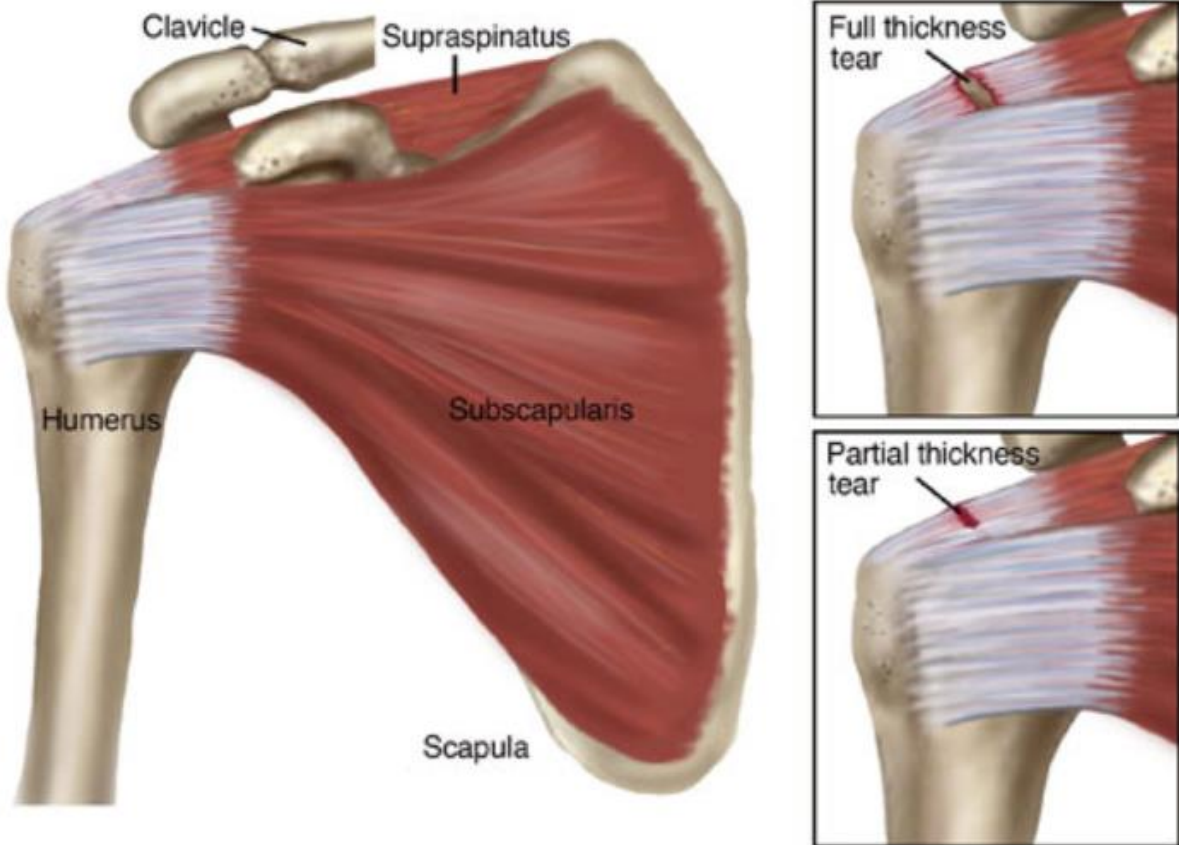


Anterior view

Posterior view

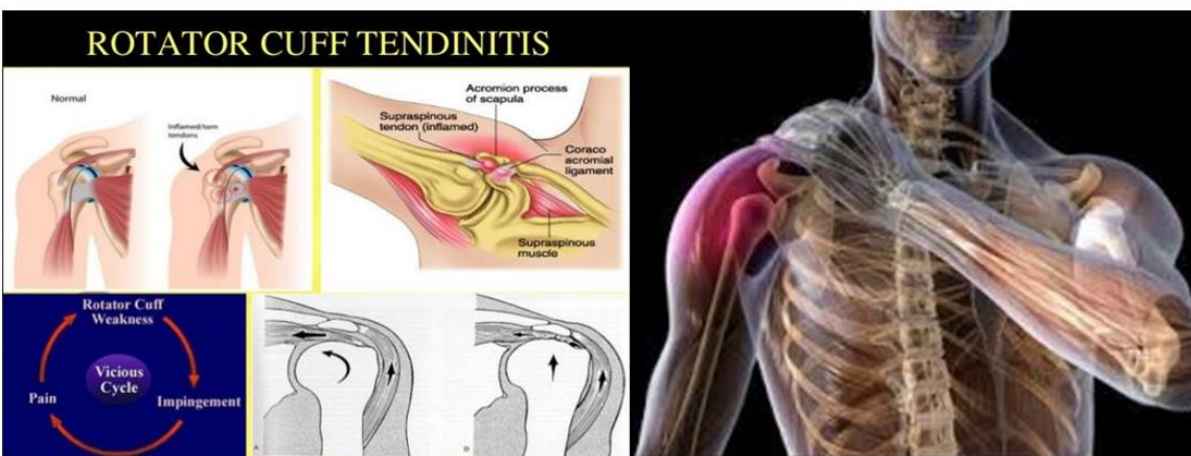
Above illustration shows the normal shoulder anatomy.

Rotator Cuff Tears

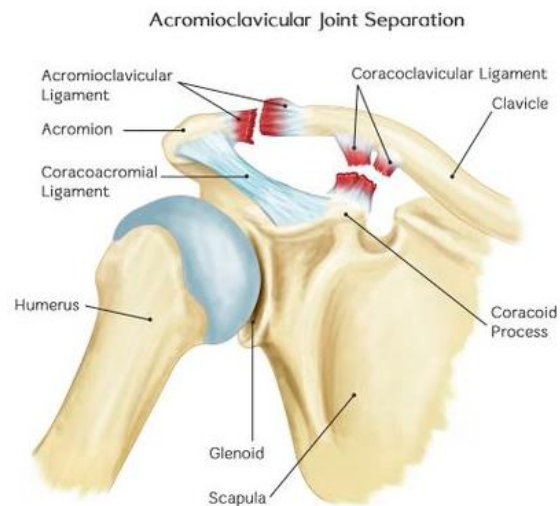


Above illustration shows a Rotator cuff tear in the shoulder, this illustration does is not of Mrs. Doe's shoulder but is an accurate representation of the problems in her right shoulder.

8. Right Shoulder Impingement: *Shoulder Impingement* is the swelling of the cuff tendons and the surrounding bursa. This causes pain, shoulder weakness and limited range of motion. Mrs. Jackson has right shoulder impingement after her MVA occurred 9/30/2021.



9. Pain in right acromioclavicular (AC) joint: *The AC joint is a joint on top of the shoulder. It connects 2 bones the **Acromion** (bone on top of the shoulder) and **Clavicle** (collarbone) hence forming the AC joint. This joint can become painful after a traumatic injury*



Above illustration shows injuries to the Acromioclavicular joint, this illustrations does not belong to Mrs. Doe but is an accurate and true representation of the problem in her right shoulder

Mrs. Doe has right Acromioclavicular pain in her shoulder after her MVA occurred 9/30/2021.

Injuries to the AC Joint account for approximately 10% of acute injuries to the shoulder girdle, with separations of the AC Joint accounting for 40% of shoulder girdle injuries in athletes. Commonly, injury happens when falling onto an outstretched hand or elbow, direct blows to the shoulder, or falling onto the point of the shoulder.



Mrs. Doe has been treated by me conservatively, with medications (including anti-inflammatory medications and pain medications), Physical Therapy and home exercise program.

She is a candidate for more invasive procedures to relieve his symptoms.

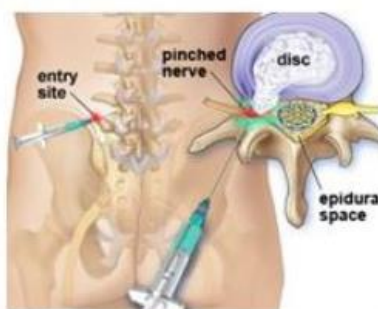
The next step in treating the patient's symptoms would be to perform **Cervical Epidural Steroid Injections (ESI)**.

A Cervical epidural is a procedure where typically a 3 1/2-inch-long needle is inserted into the cervical spine [neck] and some dye is injected and subsequently some local anesthetic (numbing medicine) and steroid (cortisone) are injected into the spine as well. It is also done using a rotating X-Ray machine called a fluoroscope and is also usually performed in an Outpatient Surgery Center with a TV type screen for guidance. The purpose of the epidural steroid injection is to deliver steroids into the epidural space surrounding spinal nerve roots, and discs, so as to alleviate pain and reduce swelling and/or inflammation. It helps to reduce pain caused by torn discs or irritated/agitated nerves in the neck which go down the arms.

Epidural Steroid Injection (ESI)

An Epidural Steroid Injection (ESI) is a minimally invasive procedure performed to help relief pain in the cervical, thoracic or lumbar spine. It treats conditions such as Herniated Discs, Spinal Stenosis and Radiculopathy (pinched nerves), and Discoagenic Pain/Annular Tears.

Preparation: In preparation for the procedure, the patient is then taken to the operating room and placed face down. The physician injects local anesthetic which numbs the skin and tissue around the level(s) that will be injected.



Inserting the Needle: Next the physician pushes a 3" to 5" Spinal Needle through the numbed tissue and uses a rotating X-Ray device called a Fluoroscope to see the needle in your body. The needle is



carefully pushed into the epidural space (the area surrounding the spinal cord) and dye is injected to confirm the needle is positioned correctly.

EPIDURAL STEPS



1. Area Identified 2. Skin Numbed 3. Needle placed 4. Medicine Injected

ESI RISKS: Infection, Allergic Reaction, Bleeding, Stroke, Nerve Damage, Spinal Cord Injury

Injection: When the needle is in place, the physician injects a steroid-anesthetic mix in to the epidural space bathing the painful area with soothing medication to reduce inflammation and pain.



Dr. Pollydore performing a Cervical Epidural



End of Procedure: Needle is removed and a bandage is place over the injection site. Extended pain relief could start within 3 to 5 days after the procedure. Often a 2nd or 3rd procedure is necessary to get the full benefit of the medication.

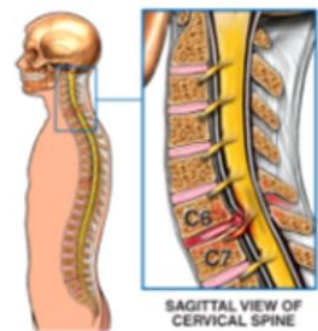
The cost of the Cervical Epidurals is likely to be between \$5,000.00 and \$7,000.00 including physician fees and facility (Outpatient Surgery Center) fees. This is usual done in a series of three with a total cost being approximately \$15,000.00 to \$21,000.00 for the cervical epidurals. This cost will vary depending on the facility being used, the number of levels being treated and other factors as well. If these epidurals fail to relieve

the patient's symptoms, then he would be a candidate for an **Anterior Cervical Discectomy and Fusion (ACDF)**. This is a surgical procedure where the painful discs in the neck are removed and replaced with some bone graft and metal plates, which are secured with screws/pins. This is usually done in a hospital. The cost for the cervical fusion would be approximately \$85,000.00 to \$110,000.00 including physician fees and hospitalization. The cost can vary significantly depending on the materials used for the fusion, number of levels fused, approach used, facility used, length of hospitalization, among other factors.

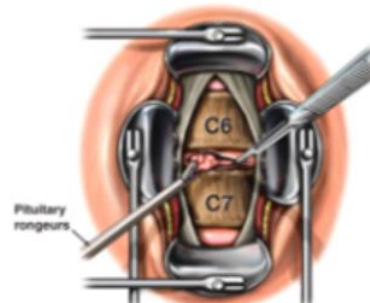
After the aforementioned fusion, the patient would need physical therapy, the cost of which would be \$4,000 to \$7,000.

C6-7 Anterior Cervical Discectomy and Fusion with Synthes Plate

PRE-OPERATIVE CONDITION



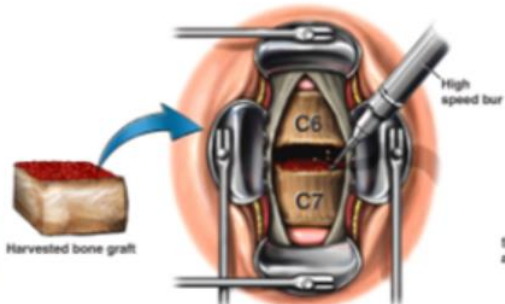
A. A lateral incision is made on the right side over the C6-7 disc space.



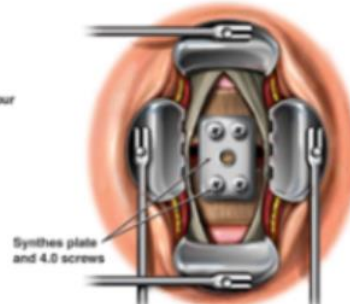
B. The damaged disc tissue is removed from the C6-7 space.



C. A tricortical bone graft is obtained from the right iliac crest.



D. The inferior endplate of C6 and superior endplate of C7 is burred down. The bone graft is then tapped into the space.



E. A Synthes plate is attached to the C6 and C7 vertebral bodies for final fixation.

Above is an illustration of a cervical spinal fusion surgery. The pictures above are not of Mrs. Doe's neck, but are a true and accurate representation of the surgery that she will likely need in the future.



The next step in treating Ms. Doe's low back pain symptoms would be to perform **Lumbar Epidural Steroid Injections (ESI's)**.

A lumbar epidural is a procedure where typically a 5-inch-long needle is inserted into the spine (Low Back) and some dye is injected and subsequently some local anesthetic (numbing medicine) and steroid (cortisone) are injected into the spine as well. It is done using a rotating X-Ray machine called a fluoroscope and is usually performed in an Outpatient Surgery Center. The physician looks at a TV type screen during the procedure to guide him/her to the correct location. The purpose of the epidural steroid injection is to deliver steroids into the epidural space surrounding spinal nerve roots, and discs, so as to alleviate pain and reduce swelling and/or inflammation. It helps to reduce pain caused by torn discs or irritated/agitated nerves in the low-back which go down the legs.

The cost of the Lumbar epidurals is likely to be between \$7,000.00 and \$15,000.00 including physician fees and facility (Outpatient Surgery Center) fees. This is usual done in a series of three with a total cost being approximately **\$21,000.00 to \$45,000.00** for the lumbar epidurals. This cost will vary depending on the facility being used, **the number of levels being treated** and other factors, such as the approach used to get into the spine. **Please note that the numbers quoted here would be higher if done in a hospital rather than an outpatient facility**

If these epidurals fail to relieve the patient's symptoms, then she would be a candidate for a **Lumbar Discectomy and Fusion**. This is a surgical procedure where the painful discs are removed and replaced with some bone graft and metal plates, which are secured with screws/pins.

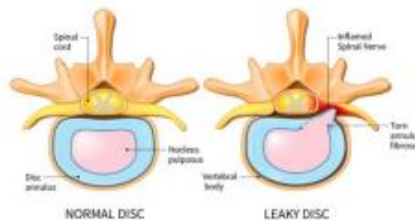
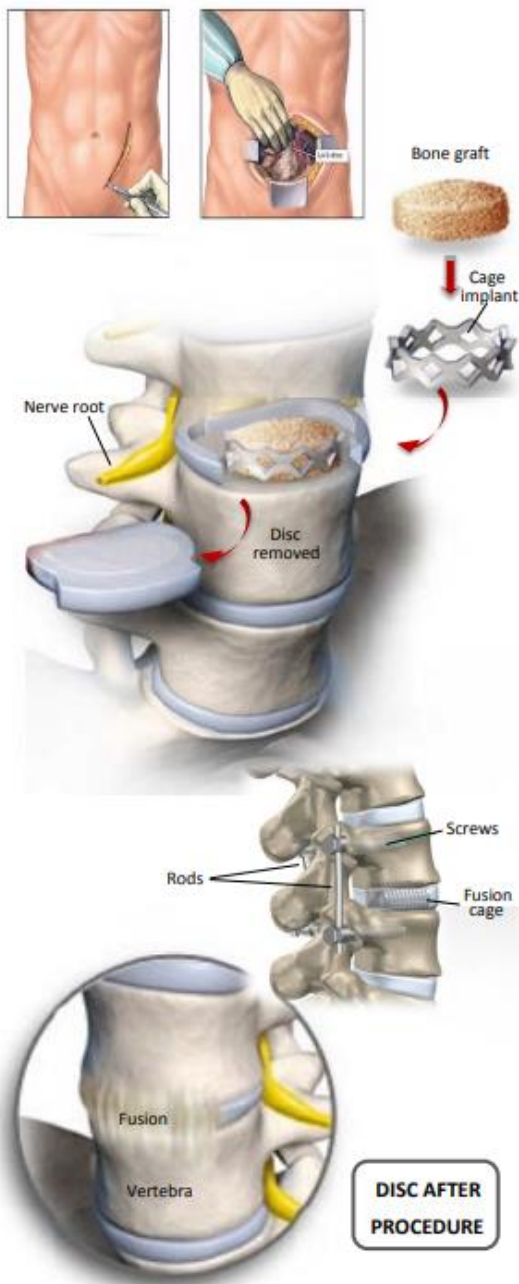
This is usually done in a hospital. The cost for the lumbar fusion would be approximately **\$120,000.00 to \$180,000.00**, including physician fees and hospitalization. The cost can vary significantly depending on the materials used for the fusion, number of levels fused, approach used, facility used, length of hospitalization, among other factors. ***Please note that there are other providers in town who charge over \$300,000 for this procedure, and that individual hospitals can charge significantly more than the numbers quoted here. If material such as bone morphogenic protein is used for example, there are hospitals who charge around \$65,000 for this alone, so the numbers quoted here can be significantly higher depending on the materials used and the facility.***



The lumbar fusion is usually preceded by a discogram (an invasive diagnostic procedure to see/map out the inside of a disc). During a discogram the patient has dye injected into several discs and the pain is reproduced, confirming that the disc that appeared bad on the MRI is in fact symptomatic. 1 or 2 controlled disks are also tested to make sure that there is not another symptomatic disc that did not show up on MRI. The cost of lumbar discography depends on the levels tested but most commonly 3 levels are tested. The Revive physician 3 is \$11,112 for a 3-level discogram. And the facility fee is \$31,941.

After the aforementioned fusion, the patient would need physical therapy, the cost of which would be \$7,000 to \$10,000

Anterior Lumbar Interbody Fusion (ALIF)



Anterior Lumbar Interbody Fusion (ALIF) is generally used to treat discogenic low back pain. The surgeon will stabilize the spine by fusing vertebrae together with bone graft material.

The procedure is performed through a three to five inch incision on the stomach. Two common approaches are over the center of the center of the stomach or slightly to the side

The damaged disc is partially removed. Some of the disc wall is left behind to help contain the bone graft material.

A metal cage implant filled with bone graft is placed in the empty disc space. This realigns the vertebral bones, lifting pressure from pinched nerve roots.

In some patients, this will be enough to secure the vertebrae. For others, the surgeon may need to implant a series of screws and rods along the back of the spine for additional support

Over time, the bone graft will grow through and around the implants, forming a bone bridge that connects the vertebra above and below. This solid bone bridge is called a fusion.

Above is an illustration of a lumbar spinal fusion surgery. This is not Mrs. Doe's low back. It is a true and accurate representation of the surgery that she will likely need in the future.



PLEASE NOTE THAT AFTER A SPINAL FUSION SURGERY AND HARDWARE PLACEMENT, THE MOBILITY OF THE SPINE CHANGES! *The patient will have more motion at the levels adjacent to the fused level. This will lead to more bending at these levels and the development of more degeneration (wear and tear) at these levels. This means that the patient is likely to need future procedures (epidurals) and even future surgery (Spinal Fusion) at the adjacent levels in the future. In essence, having fusion surgery at one level gives you a high likelihood of having another fusion surgery later in life.*

*Ms. Doe has facet joint pain and is a candidate for **Medial Branch Blocks** of the nerves to the facet joints. Medial branch nerves are small nerves that feed out from the facet joints in the spine, and therefore carry pain signals and allow you to feel pain coming from those joints. A Medial Branch nerve block temporarily interrupts the pain signal being carried from a specific facet joint. Usually, a series of 3 blocks are performed. It is usually done in an Outpatient Surgery Center. The patient typically lies flat on a surgical table and a 3-to-5-inch needle is inserted into the affected area using a rotating X-ray machine called a Fluoroscope and a TV screen. An anesthetic (numbing) medicine is injected to take away the pain temporarily. If the patient has the appropriate duration of pain relief after each medial branch nerve block (with an anesthetic), then it means that the she has*

Facet	Joint	Pain.
-------	-------	-------

MEDIAL BRANCH BLOCK



A **Medial Branch Block (MBB)** is an injection of a strong local anesthetic on the **Medial Branch Nerves** that supply the **facet joints**. The **Facet Joints** are the joints in your spine that make your back or neck flexible and enable you to bend and twist. Nerves exit your spinal cord through these joints on their way to other parts of your body. Healthy **Facet Joints** have cartilage, which allows

your vertebrae to move smoothly against each other without grinding.



Overview: This is an injection of numbing medicine that bathes the **Medial Branch Nerves**. These nerves are attached to the facet joints of the spine. Disease or injury of these joints can cause pain in the **Medial Branch Nerves**. This pain may travel through the neck, shoulders, head, upper/mid/lower back. A medial branch block can help your physician find the source of your pain. It may also provide temporary pain relief.

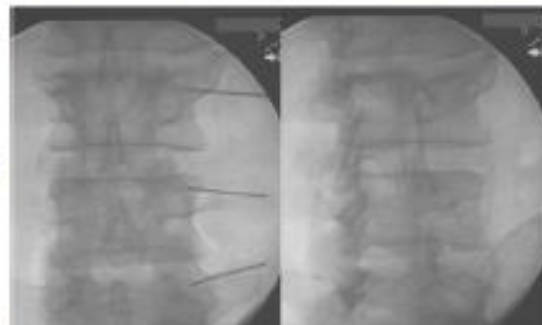
Preparation: In preparation for the procedure, an IV is placed and sedation is administered to calm the patient. The patient is then taken to the operating room. The Patient is positioned face down. The physician then injects local anesthetic which numbs the skin and tissue around the level or levels that will be injected.



Inserting the Needle: Next the physician pushes a 3" to 5" **Spinal Needle** through the numbed tissue. The physician uses an x-ray device called a fluoroscope to see the needle in your body. The needle is carefully guided toward the medial branch nerves.

Injection: When the needle is in place, the physician injects numbing medicine onto the nerves. This medicine temporarily numbs sensation. If this area is the source of your pain, you will experience immediate pain relief. More than one level of the spine may need to be injected.

End of Procedure: When the procedure is complete, you will be monitored for a brief time and then allowed to go home. A medial branch block may relieve your pain for the next few hours. You may be asked to keep track of your pain level as the medicine wears off. If the block was successful, your physician may recommend a procedure called radiofrequency ablation. This can provide longer term pain relief.



Lumbar AP and Oblique Fluoroscopic Views



The cost of this procedure varies greatly and there are two components involved in calculating the price. One component is a Physician Fee charged by the doctor performing the procedure. The second part of the cost is a Facility Fee which is charged by the Surgery Center. The Surgery Center has to pay for medications, nurses, anesthesia, machinery, the rooms have to be built to certain specifications and are lead lined. The Surgery Center therefore charges its own fee for the procedure. The current ReVive Orthopedics Spine and Sports Medicine Physician Fee is \$2293 for the first level and \$1206 for the second level and \$1156 for each additional level. We are most commonly doing 3 levels, so the **typical ReVive Orthopedics Spine and Sports Medicine Physician Fee is \$4655 (\$2293 \$1205 + \$1156)**. Please note that there are other physicians in town who may charge more for the procedure.

Facility fees vary greatly in the Atlanta area, but the median (middle) charge is approximately \$3900 per level. A typical Surgery Center (Facility) Fee for a Medial Branch Block procedure involving 3 levels would be **\$11,700 (\$3900 X3)**.

The total cost for one session of Medial Branch Blocks of the nerves to the Facet Joints would be \$16,355 (\$4655 + \$11,700). At least 2 blocks are typically performed on different dates making the total cost for the blocks approximately \$32,710. Each block usually lasts 6 to 8 hours. Occasionally a 3rd block is performed if one of the first two are ambiguous.

If the Medial Branch Blocks temporarily relieve the patient's Facet Joint Pain, then she becomes a candidate for a procedure to provide more long-term relief. This procedure is called **Radiofrequency Neurotomy (also called Radiofrequency Ablation)**.

Radiofrequency Ablation is a procedure where the affected nerves are ablated (burned) to provide more long-term relief.

RADIOFREQUENCY ABLATION



Radiofrequency Ablation is a medical procedure in which the Medial Branch Nerves to the Facet Joints are Ablated (burned) to relieve pain coming from the Facet Joints. The Medial Branch Nerves are burned using the heat generated from high frequency sound (Radio) waves.

Overview: During this minimally-invasive procedure, the physician uses heat from Radio Waves to treat painful facet joints in the Cervical Spine (neck), Thoracic Spine (Mid-Back), and Lumbar Spine (Low

Back). This procedure is also called Radiofrequency Rhizotomy. It can treat pain that doesn't respond to medications or to physical therapy or Chiropractic treatment.



Image-guided procedure using fluroscopy



Preparation: In preparation for the procedure, an IV is placed and sedation is administered to calm the patient. The patient is then taken to the operating room. The Patient is positioned face down. The physician then injects local anesthetic which numbs the skin and tissue around the level or levels that will be injected.

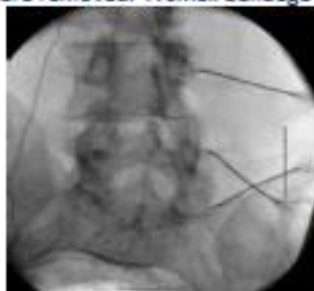
Inserting the Needle: The physician inserts a tube called a "cannula" through the numbed tissue. The physician uses an X-Ray device called a fluoroscope to guide the cannula towards the medial branch nerves.



Treating the Nerves: The physician insert an electrode through the cannula. A weak electric jolt is used to test its position. If the jolt recreates the pain but does not cause any other muscular effects, it is positioned correctly. Then the physician uses the electrode to heat the nerve. This disrupts the its ability to transmit pain signals

to the brain. Several nerves may be treated.

End of Procedure: When the procedure is complete, the electrode and cannula are removed. A small bandage is placed on the skin. The patient will be



AP Lumbar Fluoroscopic RF



Lateral Cervical Fluoroscopic RF

monitored for a brief time and then allowed to go home. The injection site may feel sore after the procedure and the patient may still have neck or

back pain. If the correct nerves were treated, gradual pain relief will be felt as it heals over the next couple of weeks. The relief may last for several months.





*The current ReVive Orthopedics Spine and Sports Medicine Physician Fee is \$3502 for the first level and \$1684 for each additional level. If 4 nerves are burned the ReVive Orthopedics Spine and Sports Medicine Physician charge would be **\$8554 (\$3502 + \$1684 + \$1684 + \$1684)**. A typical Surgery Center (Facility) Fee for a Radiofrequency Ablation procedure in the Atlanta area is approximately \$10,000. The ablated (burned) nerves does not take the pain away forever, as the patient will grow new nerves sometimes as quickly as 4-6 months in younger patients. When the pain comes back in a significant manner, then the Ablation Procedure is usually be repeated, typically up to twice a year.*

For the shoulder injury Mrs. Doe's has different alternative including a non-surgical approach; Platelet **Rich Plasma (PRP) injections**.

Platelet Rich Plasma (PRP) is a solution made from your own blood that contains a concentrated amount of your platelets. Platelets are tiny blood cells that help your body form clots to stop bleeding and they contain more than 1,500 proteins that contribute to our bodies healing. These platelets and increased levels of growth factors are created from a small amount of your own blood or bone marrow and have the potential to improve signaling and recruitment of other cells. It is this highly concentrated portion of the blood or bone marrow that is often referred to as platelet-rich plasma (PRP).

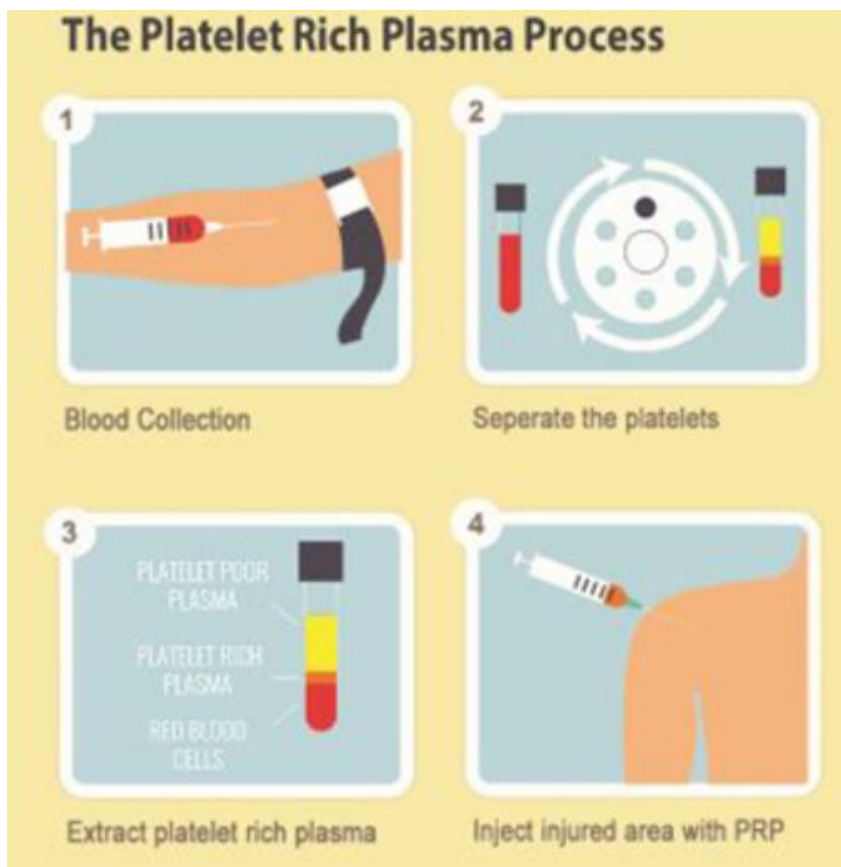
Healing after an injury involves a well-orchestrated and complex series of events where proteins in the blood act as messengers to regulate the entire process. Many proteins involved in the healing process are derived from small cell fragments in the blood called platelets.

Platelets are small, colorless, cell fragments present in the blood. They are formed in the bone marrow and are freely passing through the bloodstream in a resting state. However, when an injury occurs, the platelets become activated and start to gather at the injury site to release beneficial proteins called growth factors. This is the beginning of the healing process.

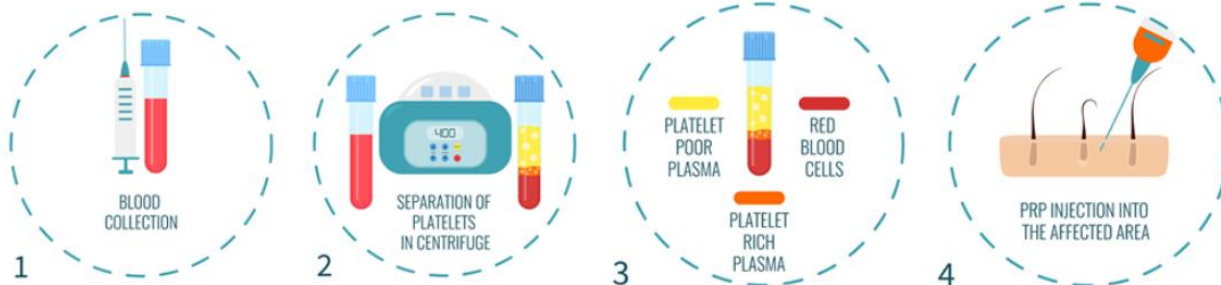
Prior to the injection a nurse takes a blood sample from the patient, then the specimen (blood) will be centrifuge; this is a process separates the blood into platelets, plasma, red blood cells, and white blood cells. The platelets are then concentrated and mixed with some of your plasma. This mixture is called "platelet rich plasma." The entire production process is usually done in less than 30 minutes. The physician injects this individualized PRP mixture into the desired location for the treatment.

The next step in treating the patient's shoulder symptoms would be to perform a rotator cuff repair surgery. This is procedure where an incision in made in the shoulder and the rotator cuff is repaired using some sutures and other materials It is also done in an

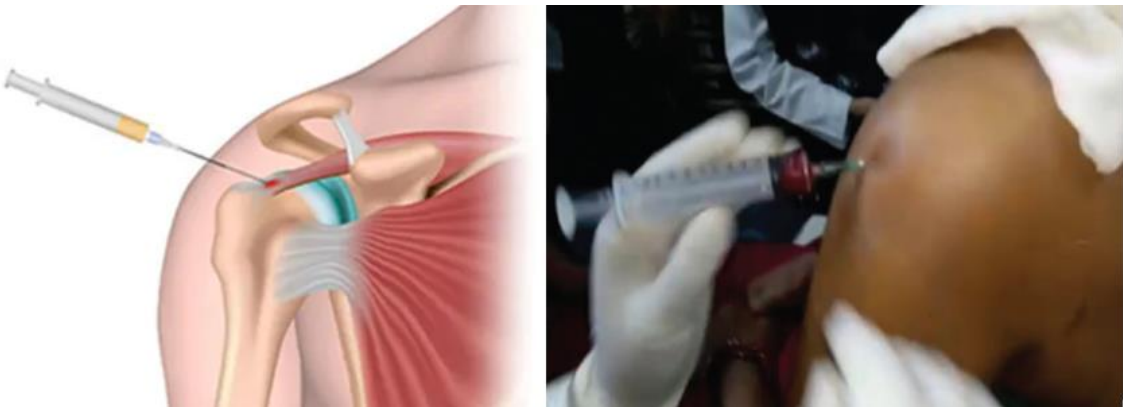
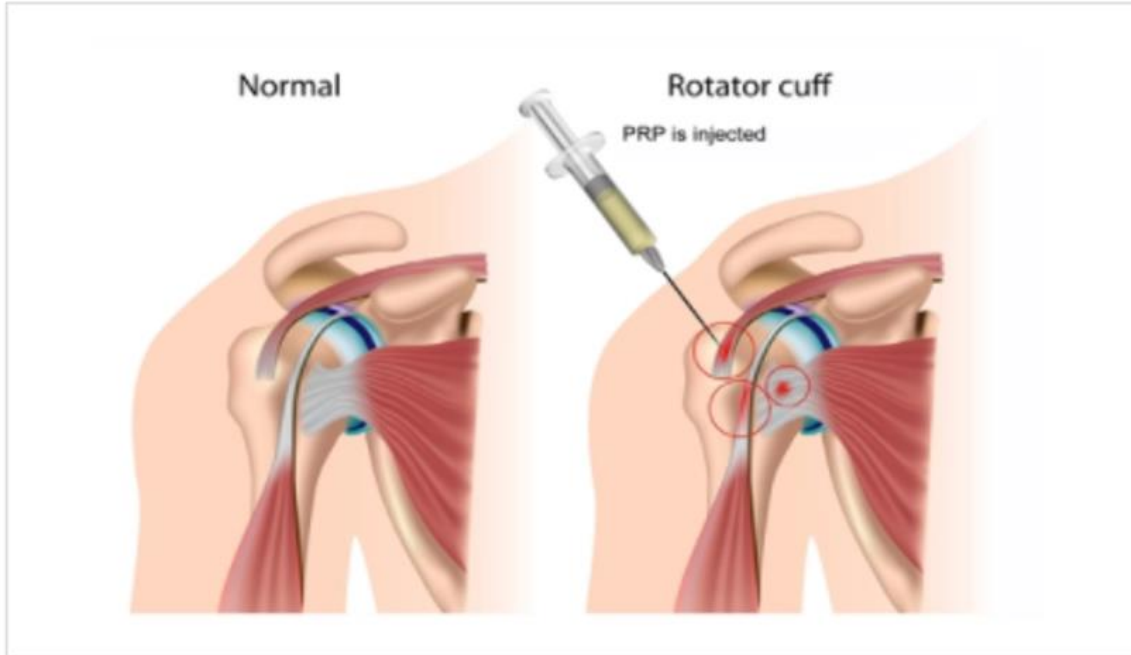
Outpatient Surgery Center. The cost of the Surgery is likely to be between \$30,000.00 and \$50,000.00 including physician fees and facility (Outpatient Surgery Center) fees. This cost will vary depending on the facility being used, and the specific materials required at surgery. If the procedure is done in a hospital other than an Outpatient Surgery Center then the cost would be significantly higher, up to three times as much.



PRP PROCEDURE

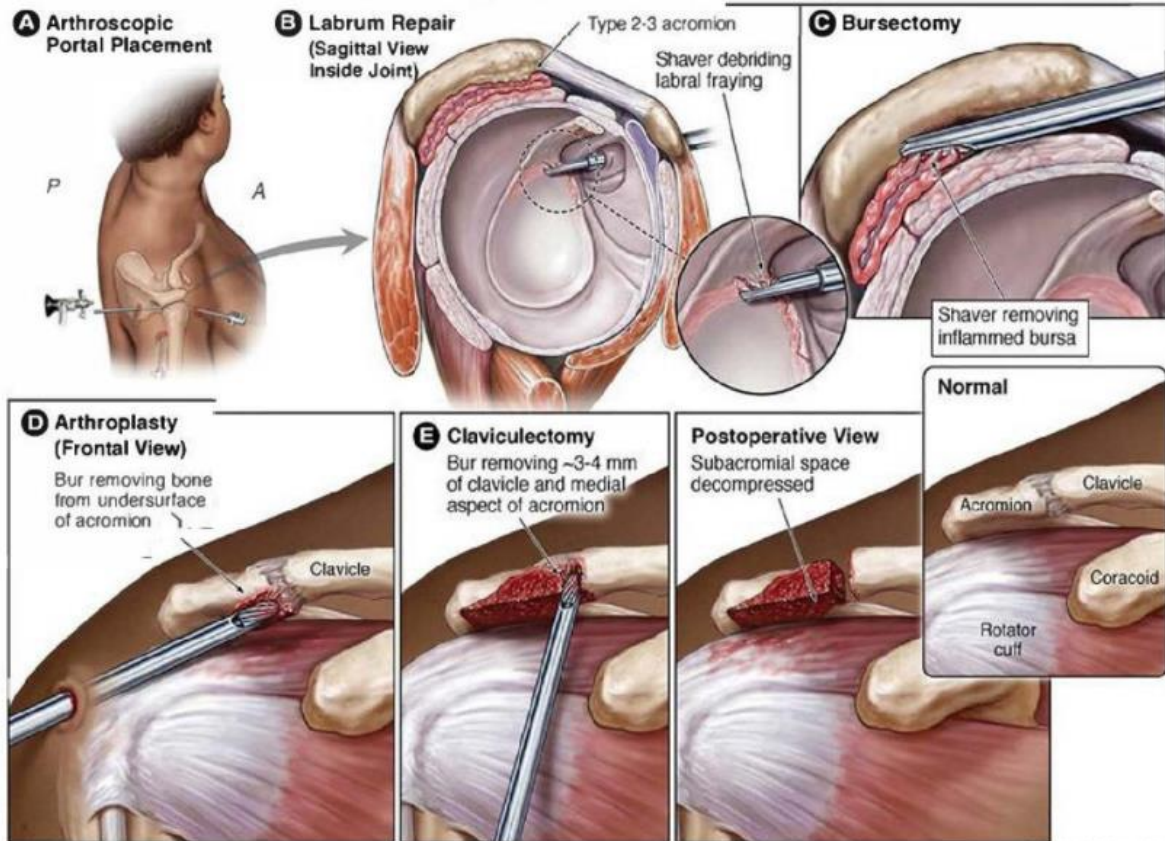


The cost for Mrs. Doe's Right Subacromial PRP and Right AC Joint PRP at POC was \$4,359.0. She is still a candidate for future PRP injections in this area.



Above are illustrations of PRP injections done at the shoulder, this are not Mrs. Doe's pictures but are an accurate representation of the procedure done at her right shoulder

Right Shoulder Arthroscopic Surgery



After the above-mentioned surgery, the patient would need physical therapy, the cost of which would be \$5,000 to \$9,000.



In my medical judgment Mrs. Doe's current symptoms and impairment are directly related to her Motor Vehicle Accident dated 9/30.2021. I state this to a reasonable degree of medical certainty or probability. Please note that all Evaluations, Diagnostic Testing, and Treatment performed at ReVive Orthopedics Spine and Sports Medicine were reasonable and medically necessary and that all bills (charges) were usual and customary charges.

Please also note that we have also included some color handouts that explain some of the conditions, treatments and procedures discussed here. For further information (and to view animation of any of the conditions or procedures) please go to <https://reviveorthopedics.com/>

Thank You,

Sincerely,

A handwritten signature in black ink, appearing to read "SD Pollydore MD". The signature is fluid and cursive.

Shevin D. Pollydore M.D.