HOSTIN - DIRECT

(Jury enters courtroom.)

THE COURT: Please be seated.

As I mentioned earlier, sometimes we take witnesses out of order. We are doing that this afternoon in order to accommodate a medical witness.

Mr. McGuinness has consented to interrupt his cross examination and allow that to proceed.

You may call that witness, Mr. Bottari.

MR. BOTTARI: The Plaintiff calls Dr. Emmanuel Hostin.

THE WITNESS: Good afternoon.

E M M A N U E L H O S T I N, called as a witness on behalf of the Plaintiff, having been duly sworn, testified as follows:

THE COURT: State your full name, spell your last name, and give your business address.

THE WITNESS: Emmanuel Hostin, H-O-S-T-I-N, 369 Lexington Avenue, eighth floor, New York, New York 10017.

THE COURT: You may inquire.

MR. BOTTARI: Thank you, your Honor.

DIRECT EXAMINATION BY

MR. BOTTARI:

Q Dr. Hostin, could you briefly give us your

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professional and educational background?

A I am an orthopedic surgeon. I went to undergrad at Johns Hopkins University. I did my medical school training also at Johns Hopkins University and did my orthopedic surgery residency at Johns Hopkins University or school -- Medical Institute.

Then I did one additional year of sports medicine training called a fellowship at University of Pennsylvania in Philly and became licensed to practice medicine in New York in 2002, when I started practicing as an orthopedic surgeon.

Q Do you know what the term Board certification means?

A I do.

Q Are you what's called Board certified?

A I am.

Q What specialty?

A In orthopedic surgery.

Q Now, you are the first doctor to testify in this case so could you please tell us what is the significance of being Board certified, are there tests involved?

A Sure, so Board certification, I guess, simply put is a certain stamp of approval in your field of practice, the board is the American Board of Orthopedic Surgery.

To get Board certified, you have to have been in practice at least two years, maybe three and you collect for a six-month period all of your surgical cases, so this is for surgical practice. You present those cases. They review those cases.

In reviewing those cases or in preparing those cases, you also explain any complications you have had which occur and then you have to explain how you corrected them or handled them from a medical standpoint.

Then the Board certification is actually an oral examination, so I flew to Chicago where they are headquartered and got grilled a little bit on all my cases.

They narrowed it down to a few, maybe it was 25 cases to confirm that I was following appropriate practices. Through that, you become Board certified and recertify every ten years, so I have been Board certified since 2005.

Q And you recertified in 2015?

A Correct. There was a year lapse only because I missed the deadline, but the following year, I became Board certified again.

Q Do you know what peer reviewed literature is?

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A Yes.

Q Can you tell us what peer reviewed literature is?

A So literature, obviously, it's scientific literature that you're referring to in which studies are performed to decide whether things work or not, simply put.

So peer reviewed means that it is reviewed by other doctors, also who usually are Board certified, they should be, and they make sure that the literature or the study was done appropriately and give commentary to support or turn down that literature.

Q Have you ever had any articles published in what's called peer reviewed literature?

A Yes.

Q In the field of orthopedics?

A Yes.

Q And do you have any what's called hospital privileges?

A I do. So I have privileges at Lenox Hill Hospital in Manhattan and also Mount Sinai West in Manhattan.

Q Now, what is your particular area of expertise in orthopedic surgery, doctor?

Q And if you weren't here today, would you be either seeing patients or operating?
A Yes. I usually see patients on Tuesday afternoons where I see my follow-up patients, but also see new patients and potentially book surgeries, yes.
Q And how many days a week do you traditionally operate on a weekly or monthly basis?
A Two days a week.
Q Do you anticipate being compensated for your time away from your office?
A Yes.
Q And approximately, how much?
A $8,000 for my half day.
Q Now, do you know what an MRI is? I'm sure you do.
A Yes.
Q And what a CT scan is?
A Yes.
Q Can you tell us what they are good for, what they aren't good for in evaluating orthopedic type injuries?
A So CT scan -- CT stands for computed tomography and it's basically an x-ray, but multiple x-rays are done almost in slices and it's mainly used to look at bone.
You can see other things like air and sometimes

soft tissue, but it's certainly not as good for those things as it is for bone because it's x-ray beams that are deflected more so by the calcium in bones and there is no calcium in most of the other structures, so it's not very good at looking at those other structures other than bone or some kind of calcified substance.
On the other hand, MRI, magnetic resonance imaging, also works in slices, but it actually works as a magnet so it actually acts on the water molecules in various tissues in the body, so in that sense, it's great at looking almost at anything although not as good as for bone because bone doesn't have a lot of water in it.
What it does do is differentiate between multiple structures that are all next to each other and based on how much more or less water those structures in the body have, it is able to project pictures, really.
They take the energy from the tissues and draw a picture, so to speak, also presented in slices to the radiologist or whoever -- the doctor looking at it, but bottom line, it's great for looking at soft tissue structures.
Q And soft tissues could be discs, tears in muscles, tears in ligaments, things like that?
disc, cartilage, muscles, tendons, brain tissue, for example, sure.
Q Now, did there come a time when someone by the name of Ed Carter became a patient of yours?
A Yes.
Q When is that and you can refer to your notes and you can actually read from them because your notes have been, with the agreement of counsel, put into evidence as Plaintiff's Exhibit 4.
A Great. I brought my notes today. So the first time I saw Mr. Carter was on October 9, 2012.
Q Now, did you take what's called -- let me ask you this.
What was his chief complaint?
A He came to see me about his right shoulder, so he had right shoulder pain.
Q Did you take what's called a history from him?
A Yes.
Q Can you tell us what he indicated to you was the history?
A I have noted that he was involved in a motor vehicle accident, a car accident, on July 3, 2012.
Q Do you know if there were any x-rays or anything taken on or about that date?

A Yes. He reported to me that he did have x-rays done in the emergency room.
Q Did he indicate to you whether or not he sought further medical attention within a couple of days?
A Yes. So he a few days later ended up seeing, I think, Dr. Gondre who is the person who eventually referred him to me and was further evaluated and eventually prescribed physical therapy.
Q Well, let me ask you this.
What do most doctors consider to be quote, unquote, conservative treatment?
A Well, it depends on what the issue is.
Q Let me ask you this.
Is physical therapy usually considered to be conservative treatment to a patient who has an injury to his back, his neck, his shoulder?
A Absolutely, yes.
Q If someone injuries their shoulder, is there a general course of physical therapy that you would normally prescribe?
A Yes.
Q Depending on the severity of the injury?
A Correct, yes.

undergone a course of physical therapy?

A Yes, so what I have noted here based on his report to me was that he had started physical therapy, it seems like just a couple of days after this accident and had been receiving therapy up until he saw me on October 9, so about three months later.

Q What type of complaints did he give to you with regard to his right shoulder?

A He had difficulty reaching overhead, so reaching above shoulder level and also reaching behind his back and he also had night pain with difficulty sleeping. Those were his complaints.

Q Is it unusual for someone who has a shoulder problem to have difficulty sleeping on that side of his or her body?

A No. These are actually all three very common complaints for my patients who have had shoulder injuries.

Q Now, just in general, if someone has a problem reaching overhead, what, if anything, does that signify to you as a clinician who treats those types of problems?

A It's a common complaint with several shoulder injuries, but I always have to think about rotator cuff injuries.

The rotator cuff is a group of muscles that attach to the bone and help rotate it and actually hold it in the socket, so the rotator cuff muscle is probably the first thing I think about, but there are also other injuries that may also give similar symptoms.

Q Let me ask you this.

Did I ask you to bring a model of the shoulder here today?

A Yes.

MR. BOTTARI: With your Honor's permission, can we have that marked just for identification purposes only and may the doctor explain what he means by the rotator cuff, where it is and how it affects motion going up.

THE COURT: We will deem it marked. Go ahead.

(Plaintiff's Exhibit 5, was deemed marked for identification by the Reporter.)

Q May the doctor step down? It might be helpful.

THE COURT: Yes.

A This is actually a right shoulder model. It shows the shoulder blade and the collarbone here.

The rotator cuff muscles that I had mentioned, around the ball or the humeral head, sort of like a shirt cuff. They are in the front, over the top and in the back.

The shoulders are a very unique joint in that there is one of the few spots where muscle and tendon run between two bones, so you have the top of the humeral head and the bottom of this bone that you kind of tap on the top of your shoulder called the acromion.

Again, getting to the question about difficulty raising your arm, as the arm moves up, that space between the top of the ball and the undersurface of this acromion gets smaller.

So anything that's in there that's swollen, so in the normal situation, you would be able to do that, no problem, so in the event that the tendon is swollen or any other tissues in that area, it's going to cause difficulty lifting up the head or the arm and in some cases, if this tendon or one of these tendons is completely torn, you may also have similar problems reaching overhead.

Q You also indicated that Mr. Carter had difficulty reaching behind his back.

Can you explain technically why that type of injury?

A It's actually very similar also.

Again, as you are reaching behind, you are also diminishing that space called the subacromial space, so again, that's a very common complaint with rotator cuff injuries or what's also called impingement, subacromial impingement.

Q I want you to assume for a moment that there has been testimony that Mr. Carter was in a car accident where he was in the front seat as a passenger and the car was rear ended, he was thrown forward and his right arm was extended and hit the dashboard and his head hit the dashboard.

What does that description of the mechanism of injury say to you with regard to the complaints that he has?

A There is a pattern of injury that's not uncommon from falling out, we call it falling out, on to an outstretched hand.

If you fell and you reached out and tried to catch yourself, everyone is protecting their pretty faces, so also in a car, it's not that different.

So imagine the arm, the hand to the elbow to the shoulder kind of being jammed up. It's not uncommon to

of the rotator cuff that ends up being between these two bones.

The other part of the joint that I didn't really talk about is the actually the joint itself, where the ball and socket meet.

I can't take it apart from this model, but there is a ring of cartilage around the outer part of the socket called the glenoid.

It kind of gives a little more of a deep dish structure to the glenoid because, really, it's almost just like a flat little -- like a tee, like a golf ball on a tee, but also that's another source of injury in that mechanism where the ball kind of slides in an unnatural way over the socket and can kind of rip that labrum off the edge of the socket.

The last thing is this biceps tendon can also be pulled as a result of that mechanism.

Q And these injuries would be consistent with what you told us about in terms of the injury on the day of the accident?

A Yes.

Q Did Mr. Carter tell you about a previous shoulder injury when he was lifting weights?

A Yes, but I would have to look at my notes.

Q Go ahead.

A He did, yes. He had reported that he had hurt that same shoulder lifting weights years prior.

Q Did he indicate to you what, if anything, was the treatment that he received at that point in time?

A It's something that seemed to go away pretty quickly. He had a Cortisone injection into the shoulder and had no problems after that.

Q When doctors use the term asymptomatic, that means no further complaints or no complaints versus symptomatic?

A Correct. So symptomatic, he has symptoms of pain or whatever his complaints are and asymptomatic, yes, there are none.

Q So he indicated to you what at that point in time with regard to this prior injury?

A That he had gotten better after that treatment which included the injection.

Q So he came to you for an evaluation, correct?

A Yes.

Q Now, briefly, I'm going to go through your report.

You asked him about his prior medical history,

A Yes.

Q And he indicated to you he had coronary problems, he had congestive heart failure?

A Yes.

Q With an injection fracture between 20 and 30?

A Yes.

Q He indicated that he had a pacemaker or defibrillator implanted in what, 2001?

A I think I have here 2011.

Q I'm sorry, 2011, and that he had diabetes?

A Correct.

Q You didn't do any testing with regard to his diabetes, correct?

A No, I did not.

Q At that point in time.

He indicated to you that he did have -- both knees had arthroscopic procedures in 2005 and 2007?

A I don't have here documented when it was, but --

Q Well, I believe you indicated that he was taking no medications, is that accurate, doctor?

A Actually, with looking at the rest of my chart, I mean he had jotted down none, but clearly, from his medical problems, he was taking something, so I wrote down none meaning that he was not taking pain

medications, but clearly and from his later medical records, he was taking a good bit of medication.

Q You noted his height and weight, correct?

A Yes.

Q And he was about 305 pounds at that time?

A Yes.

Q With regard to his right shoulder, what type of testing did you do, what did you find at that point in time and what diagnosis, if any, did you make?

A So I had checked his range of motion.

Q Let me stop you right there.

Is this range of motion testing that you do, is that standard that all orthopedic doctors and orthopedic surgeons do to a standard set of tests?

A They should, yes.

Q It's not something you made up?

A No, not at all.

Q When you say you test his range of motion, what type of range of motion testing of the shoulder do you do, can you explain that?

A Sure. May I stand and demonstrate?

THE COURT: You may.

A So I check forward flexion, basic motions,

Q What is normal?
A Normal is probably being able to go straight up or maybe a little bit short of that, so 170 or 180 and then I measured 110 for him.
Q So let me -- just so we are clear, that's about a 30 percent, 35 percent deficit, something like that?
A Yes.
Q How about --
A And then external rotation, I measure in two positions. External rotation is just going on this way, so I measure it with his elbows close to his body so in a deduction. Normal is 60. His, I measured at 50.

And then external rotation with the arm up here in this position, normal is 90 for your average person and I measured 70 in this case.
Q Now, are you doing this range of motion by eyeballing or a goniometer?
A I usually use a goniometer.
Q Can you tell us what that is?
A A goniometer is a device used to measure angles, so it has two arms that kind of sit on a little pivot and so this would be a zero angle, relative to this and this would be 90 degrees and it has markings on it so you can measure that.

Q And if he had external rotation of 70, and normal is 90, that would be a 20 or 25 percent decrease in range of motion, that area?
A Yes, and -- and I also checked his ability to reach behind his back. I usually don't measure angles with that. I measure the ability how far up you can get behind your back, so usually, I measure the bottom of the shoulder blades as T-7.

Again, I use the number of vertebral bodies, the little spinal bones, and based on how far you can reach up, I document that.
Q So his was not normal at that point?
A It was low so L-5 is just basically above your waistline, I guess, as opposed to --
Q T-7 is midback?
A Yes, right below your shoulder blades.

And then in abduction, his ability to reach out to the side with the arm, with the forearm in this position, normal is about 90, his was a little below that at 80.
Q At that point in time, did you review any CT scans or any diagnostic tests?
A Yes, I did receive a copy of the report for his

Q And what, if anything, did that reveal to you in terms of clinical observations?
A That had been performed about three weeks after his accident and it showed AC joint arthropathy, so that his AC joint and --
Q Can you point to it on the model?
A Absolutely, so the shoulder actually, I will expand on what we talked about earlier, really has three joints, three parts of it that help with motion.

One is the ball and socket joint that we talked about that's pretty basic. Most people think about that, but then there is also the acromioclavicular joint.

So your collarbone where it actually joins the acromion which is the part of the shoulder blade, the shoulder blade has this little bony projection, you can kind of knock on on top. Then there is the collarbone that attaches there.

The third part of the joint is actually your shoulder blade that moves on your rib cage also, so in this case, this joint here, between the collarbone and the acromion had some -- some arthritis, some changes there.
Q Let me ask you this.

If he got hurt in July, would you expect the

arthritis in the MRI two or three weeks later?
A Not as a result of the accident, but yes, it was there.
Q Now, you tried to get the MRI from the incident with the weightlifting?
A Correct.
Q You didn't get that, right?
A No.
Q Now, someone with his medical history, if you were going to recommend surgery, would you have to get what's called medical clearance?
A I would start by saying that with someone of his medical history, I would do a lot to avoid surgery.

So one thing that you mentioned in passing which stands out to me and maybe not everybody here is that a normal ejection fracture of the heart is 65 percent, so that's really how much blood the heart pump can basically spit into the arteries or the aorta.

His was half of that, so this is a patient that I would really push as much as I can to get better without surgery.
Q Well, the physical therapy had been done and didn't really improve, correct?

Q So did you see him again after your initial visit in October of 2012?
A I did.
Q And what was the result, did you again do a physical exam, did he have complaints, tell us?
A So I saw him again on December 11, so about five months after his injury. He continued to have pain in his shoulder.
I had previously diagnosed him as having post traumatic impingement as I had mentioned earlier, so swelling in between those two bones and AC joint arthropathy. He was painful in that joint on the top of his shoulder.
Again, it was post traumatic, not in that the arthritis happened as a result of the accident, but it wasn't painful, it didn't bother him before the accident, but after the trauma, so post traumatic, it was symptomatic, so anyway, he was still having symptoms.
I checked his impingement signs --
Q Can you tell us, did you do range of motion testing, what did you find?
A I did. So his range of motion still was decreased and, in fact, was worse than when I had seen him two months earlier, so instead of this being normal,

instead of the 110 or so that he had during his first visit, now, he was just basically able to reach to shoulder level.
His abduction was a little lower by five degrees and now instead of being able to reach to his waist line, he could only reach to his buttock behind his back.
Q So he was not really improving, is that a fair statement?
A Very fair. He was getting worse.
Q And he still complained of pain, correct?
A Yes.
Q Still had trouble sleeping?
A Yes.
MR. McGUINNESS: Leading.
THE COURT: Yes.
Q At that point in time, since we were now five months after the accident, what, if anything, did you recommend to Mr. Carter?
A So at that time he had had the previous physical therapy that had not gotten better, so I told him that probably -- I told him that his only option to change his shoulder would be surgery.
Q Did he, in fact, agree?

Q Did you also have to do what's called medical clearance with regard to Mr. Carter?
A Yes, so part of the discussion was that -- any surgery for him would be risky, given his heart condition, so that there were risks of having the surgery.
I took this very seriously and, obviously, he did as well and he would have to see his heart doctor and his other doctors to basically make the surgery as safe as they could in terms of any adjustments of medications, et cetera.
Q Did there come a time in January of 2013 when, in fact, you did perform the surgery on his shoulder at Lenox Hill Hospital?
A Yes.
Q And you can refer to your operative report.
A Right. So the surgery was on January 21, 2013.
Q Can you tell us what a pre-op diagnosis is?
A Preoperative diagnosis is basically a diagnosis you have made before the surgery, so the reason why the patient required the surgery and why you are there.
Q Can you tell us what a post-op diagnosis is?
A So the postoperative diagnosis, post-surgery or postoperative, after the surgery, once you have more

information, i.e., what you found at the time of the surgery, then you can prepare postoperative diagnosis, you know it now. You have that information, so that's the diagnosis given everything you found at the time of surgery.
Q Well, let me ask you this, on the CT scan, did it show any tearing of the labrum or any tearing of the rotator cuff or any tearing of any other parts of the shoulder that you saw?
A No, it didn't, and I wouldn't expect a CT scan to show those items.
Q Tell us why, I know you briefly described --
A We talked about it earlier, so again, it doesn't look at soft tissue and it doesn't look at the rotator cuff or at the labrum or those other structures.
They are seen almost as small mild shadows that you can't really make interpretations of, not enough to make that kind of diagnosis.
Sometimes, previously, before the days of MRIs, they used to inject dye into a shoulder and take a CT scan or an x-ray and if that dye leaked out, then there was an inference that yes, there is a tear, but even that tear has to be a full thickness tear, it has to be

Q You used the term full thickness tear.
What is the difference between a full thickness tear and a partial tear?
A I usually tell my patients that imagine the tendon, let's look at this tendon, as having a certain thickness to it and I actually use the description of a sandwich, let's say, and then we can talk about slices of bread and whatever floats your boat in between the slices of bread.
So let's call it salami and so a partial -- let's say a full thickness tear goes through the whole sandwich. It goes through the bread, through the meat and through the second slice of bread.
That full thickness tear could be small, it could only be -- let's say if this is the tendon, it could go through one finger's worth or all fingers and be a very large tear, but full thickness goes through the whole sandwich.
A partial thickness tear would only go through something less than the full sandwich. It might be one slice of bread or the bread and the meat, or even -- it could be up to 80 percent thickness, so through half the second slice of bread, but it doesn't go all the way through. It's not full thickness.

Q When you did your surgery, doctor, on Mr. Carter's right shoulder, did you find any tears?
A I did.
Q How many tears did you find?
A I found a partial tear of the rotator cuff tendon and then I found two tears of the labrum, so that's the -- kind of the cartilage structure around the socket.
Q Do you have an opinion with a reasonable degree of medical certainty -- I want you to assume that Mr. Carter's shoulder was asymptomatic prior to July 3, 2012.
A Okay.
Q Do you have an opinion within a reasonable degree of medical certainty as to whether the tears that you found in his shoulder were as a result of the accident of July 3, 2012?
MR. McGUINNESS: Objection.
THE COURT: Overruled.
A I do have an opinion.
Q What is that opinion?
A That they were caused by the accident in which he was involved on that date.
Q Now, just briefly, you said you found a superior

A Yes.
Q Can you show us on the model and what does that affect in terms of motion, if it's possible?
A Yes, so, it's actually tough on this model, but, again, we talked about the socket, so I can't take the ball out of the way, but the socket, we look at it almost like a clock face and it's kind of oval in shape.
We talk about the superior here or the top part of the labrum or the bottom or inferior and then anterior and posterior, so front and back.
So in this clock face, he had a tear at the top of the shoulder and the front of the shoulder, so two separate labral tears.
In terms of motion, it's through pain and inflammation that the motion is restricted, but you could theoretically have a labral tear and have good motion of your shoulder.
Q Well, does the motion deficits that he exhibited to you when you examined him correlate to the tears that you found in the surgery?
A I would actually submit that the range of motion deficit more closely is a result of the rotator cuff tear so the third tear that he has, but the labral tears certainly completely impacted in terms of inflammation

and pain.
Q But taken together, all of those tears didn't help him, right?
A No, not at all.
Q It limited his range of motion?
A Yes, again, the limitation on lifting came through a couple of different mechanisms. One is from the rotator cuff tear and the subacromial inflammation, but then further pain with that motion also kept limiting him and that's why it kept getting worse.
Q I'm going to briefly go through your operative report, if you can, go to Page 2, so you can tell the jury and the Court what you did, when you made the incision.
Why don't you start at the top where you used a number 11 blade, tell us what you did?
A Sure. So an arthroscopy basically uses a small camera or arthroscopy which we insert into the joint and while looking there, we are able to insert other small instruments through other incisions, so we are doing this through the skin rather than a big open incision.
So I started with a posterior incision, so I made my first incision, inserted the camera and was able to

socket that I showed you on the model. We started there and I just take an initial look at the structures I find.

So I found that the cartilage inside the joint was fine, there was no evidence of arthritis in the main part of his joint but there were tears of the labrum that I found as I described to you at the top and in the front of the joint. The biceps tendon was okay.

Q Doctor, let me stop you for one second.

Did I ask you to bring with you color -- did you take intraoperative photos?

A I did.

Q On this iPad, are these copies of your intraoperative photos?

A They are.

Q Would it be helpful if you used this to show the jury what you did, again, if you can step off. I have shown this to counsel.

MR. McGUINNESS: Is there some way to designate what specific photo on the panel?

THE WITNESS: I will call them out if you like.

MR. BOTTARI: It's the grid, one, two, three, four, five, six, seven, eight, nine.

THE COURT: Later on, we're going to have

them duplicated and they will be labeled.

A So there is 9, 18, and 22 in total. I will try to give the number.

So this initial look is -- remember, the camera is probably about the size of a pen in terms of diameter, in terms of the diameter, so you can only see so much in any one particular time, so you don't get the whole overall picture all at once.

Here is the ball or the edge of the ball and here is the top of the socket, so imagine the socket is that clock face or that oval clock face.

So here is the top part and some of these little scraggly tissue here is part of the tear and then there is this tear over here which should be attached to this structure.

Q Which plate are you pointing to?

A That was picture number 1.

Also, then picture number 3, again, kind of a more central look, so here is the ball, here is the socket on the bottom. This is all cartilage, so if you eat chicken, opened up like a chicken joint, the white cap at the end of the bone, that's cartilage and we have similar cartilage, so that looked good.

of coming in between the two bones. This is actually the biceps tendon coming in which I mentioned as normal.

Q Can you refer to the grid on the chart so we know what we are talking about?

A The biceps tendon normal image is image number 5 and then in image number 9, this is actually a picture of, again, here is the ball, here is the socket here, here is the torn labral tissue.

This is sort of one of these instruments that we use. It's actually kind of a rotary tool, a rotary tool that turns, has some teeth and is able to grab the tissue and then it has a suction device on the other end that brings whatever we debrided off out of the joint.

Q What do you mean by debrided?

A Cleaned up, so you remove the stuff that you don't want, so you can tell your kids to debride the crap out of their room.

This is picture number 13, so here is the top part of the glenoid -- actually, this is a great shot, with the biceps, the normal biceps coming in, but the superior labrum is here.

You can see it's very ratty, we cleaned up part of it but still had to smooth it out a little bit more.

I am also demonstrating in that same picture that

there is some separation between that top labrum from the bone, this is another component of the tear.

Then up top, so image 17, now, I'm in the subacromial space, rather than being inside the joint where I would be between the socket and the ball, I am up in this space now.

We can actually take the camera out and then insert it through the same initial incision, but now into another space on the top of the shoulder -- the top of the rotator cuff and there was a tear there, you could see this hollow here, that's the image --

MR. McGUINNESS: Which image?

A Same image I called out which I think was 17.

Again, that same instrument, the shaver, coming in to remove the loose stuff, but the remainder of the tendon was okay so I left that behind.

Then the last thing that we did which is also standard for this type of problem is the resection of the distal clavicle, so that's going to be images 19 --

Q Can you define resection?

A I'm going to in a second. 19 to 22.

So with these issues, remember the one I mentioned between the collarbone and the top of the

the joint when all else fails is to actually remove a part of the bone, so that the two bones don't touch anymore.

This is a very accurate model. There are two ligaments that actually hold the collarbone in place, so even by removing that bit of bone -- I didn't want to freak you out, by removing that sliver of bone, you avoid the contact between these two bones, but it still remains stable there.

So this is the end of the collarbone, so this little -- actually, it looks like an English muffin, like Thomas' English muffin, like nooks and crannies, that's the end of the bone after we have resected that bit, so -- that's it. Again, that's 19, 20, 21 and 22.

Again, different angles just because I have to remove a pretty -- I have to know how much I am resecting.

After I resected it, I insert a small cannula, a little tube which I know the size of and that helps me measure and make sure I remove the appropriate amount.

Q Doctor, how much did you remove?

A Ten millimeters, so a centimeter of the bone, a little under half an inch.

Q Have you basically told us what you did during

your operation in the last few minutes?

A Yes. We actually trimmed -- I skipped one other part. So, also, the other issue with impingement, we talked about impingement, so when you lift the arm up, it kind of pinches that space.

So there are two ways to resolve that. One is to remove anything swollen that's not necessary, so part of what causes impingement is bursitis.

If you ever heard of term bursitis, the bursa is kind of a general structure that we have in multiple parts of our bodies and I call it God's natural WD-40 so it's kind of a flat tissue.

Imagine putting a little mineral oil inside a balloon and just letting it stay flat. You can imagine that that's very slippery and it would keep things from rubbing against each other.

In the event of trauma or injury, that bursa can become swollen and irritated and so that's part of what causes the inflammation in this space that we talked about, so we do two things to help that.

So I removed the bursa, so, again, that little shaver instrument we insert in there, we remove the bursa, but we also take that other instrument, the burr

remove a little bit of the bottom of this bone, the acromion, so that's called an acromioplasty.

So by making the space bigger and removing the swollen tissue from that space, we allow for more motion again or, hopefully, for pain free motion after appropriate therapy.

Q Now, after you finished with this operation, what is generally the recovery time for a person who had an operation like Mr. Carter?

A With appropriate therapy and coaching, probably about three to six months, depending on the person.

Q Is the rehab for shoulder surgery pain free?

A No.

Q Can you describe what a general rehab for shoulder surgery entails?

A A surgery -- so we are operating in this case for someone who has had trauma to the shoulder, trauma, injury, et cetera, but surgery is really, in essence, a controlled trauma, so it's not normal to have these instruments in your shoulder, so it causes swelling in and of itself.

The shoulder is very unique amongst other joints, let's say, just compared to the knee, that it can really generate a lot of inflammation after these surgeries, so

getting the shoulder moving right away is very important.

Specifically, what does the therapy entail, moving the shoulder, both -- sometimes with a passive machine, imagine a chair that has a little outrigger -- little motor that you attach to the arm, you press a button and it kind of helps move it to keep it from getting stiff.

Therapists keep you moving. You move it in all directions, so not just to scratch your head, but you have to get your arm above your head.

He restores your range of motion, but once you got your motions a little bit better, you have to restore strength. You do a little strengthening, let's say, lifting weights or pulling or pushing against bands for resistance.

Q Let me ask you this, did Mr. Carter have any sort of follow-up visits with you, doctor?

A He had a couple. After the surgery, I saw him -- so the surgery was January 21, 2013. Then I saw him on February 5, 2013.

Things looked appropriate so the incisions that I had made looked like they were healing appropriately and I gave him a prescription to begin physical therapy and

Q Did he, in fact, see you in the next four weeks as you requested?
A No.
Q By the way, at the February 5, 2013 visit, did you do any range of most testing or too soon to do it?
A You know, I do a little bit of testing and I get an idea in my head of where this patient is headed.
In terms of someone who has full range of motion a week or two after surgery, I don't worry about too much and then patients who are very stiff and hesitant to even move, I read him the riot act and explain the importance of getting the shoulder moving, so yes, I do a little bit although I don't normally document it.
Q Did you see him again at some point in time over the next year or so?
A Yes. I saw him again on April 8 of 2014.
Q At that point in time, did you examine him?
A I did.
Q What, if anything, did your examination show?
A So I always check the AC joints, so when we remove that part of clavicle, I check that area. He was not tender there, and I checked his range of motion which was better than before his surgery, but not normal.
Q Let me ask you this, the forward flexion that you

had when you originally saw him was 110 and 95, correct?
A Yes.
Q When you saw him April 8, 2014, which was approximately fifteen months after the accident -- after your surgery, doctor, what did the forward flexion measurement show?
A He had forward flexion of 120, so that's 90, it was about 120.
Q Normal is 170, 180, that's what you said?
A Correct.
Q So in your opinion within a reasonable degree of medical certainty is his range of motion with regard to forward flexion of his right shoulder, is that decreased permanently?
MR. McGUINNESS: Objection, your Honor.
THE COURT: Overruled.
A It is my experience if this is the range of motion a year after, a year or after surgery, that that's what they are going to get. It's permanent.
One could try further surgery to try to advance range of motion. There are various ways to do that, but without that, this is permanent.
Q And that's about -- 170 or 180 is normal, that
A Approximately, yes.
Q With regard to abduction, you found 90?
A Yes.
Q How does that relate to normal?
A That's normal.
Q With regard to internal rotation, he was now at L-4, that's up one on the back?
A A little bit more above his waist, but not quite normal, although I will admit I usually compare it to the other side and I don't have his other readings there, but that's not -- that's diminished.
Q That would be permanent at this point in time?
A Yes.
MR. McGUINNESS: Objection.
THE COURT: Overruled.
Q And with regard to external rotation, you found what, 50 degrees at normal being 80?
A No, so that is -- my external rotation, I measured in two rotations, the elbow down and elbow up, so the elbow down normal is 60, his is at 50. With the elbow up here, normal is 90 and he was at 80.
Q So he has some slight diminution, less than --
A In rotation, yes.
Q And that also would be permanent at this point in

time, about a year out?
MR. McGUINNESS: Objection.
A Yes.
THE COURT: Overruled.
Q Doctor, do you have an opinion with a reasonable degree of medical certainty given your examination of him, Mr. Carter, two times before your surgery, given the history of the accident as told to you, given the mechanism of injury, given the complaints he expressed to you, was he unable to perform his usual and customary duties in the three months out of the six months after July 3 of 2012?
MR. McGUINNESS: Objection.
THE COURT: Overruled.
A He had significant disability in the shoulder so, yes, he came to see me three months after the surgery -- excuse me, after the accident and was debilitated at that time and I continued to see him for another almost three months until he had surgery and he was even further debilitated, so certainly, that was more than ninety days, so, yes, he did have great difficulty and could not do normal activity with that shoulder.
Q When you say normal activity, just so the jury

A So things -- activities of daily living, for one, things like reaching behind your back, getting a wallet out of your pocket, getting a dish out of the cupboard, sleeping without having to do gymnastics to find the right position and then lifting, just lifting anything above shoulder level, those are other things that are very difficult with these type of injuries.

Q Given the findings that you made on your follow-up exam in April of 2014, would those type of things be permanent at this point in time?

MR. McGUINNESS: Objection.

A Can you repeat?

Q Sure. Given the findings that you made in April of 2014, were those range of motion and some activities of daily living be limited on a permanent basis?

MR. McGUINNESS: Objection.

THE COURT: Overruled.

A Yes.

Q And all of the opinions that you have given us here today are within a reasonable degree of medical certainty?

A Yes.

Q Can you give us one last time, the basis of your opinions?

A Again, this is a gentleman who before July 3 of 2012 had a prior injury, but was better and was normal up until July 3. He was asymptomatic.

After July 3, 2012, and until he saw me and even beyond that, he continued to be symptomatic in the shoulder, just from a time standpoint, this was just after the accident, it was clearly a result of the accident.

Then as we mentioned beyond that, his range of motion has not increased beyond 120, forward flexion, a year and a few months after the surgery and as I mentioned, I have been doing this for a long time and that's kind of the end of the road. It's not going to improve any further without very aggressive measures.

Q Do you have an opinion as to whether he may need pain medication in the future because of the injuries to his shoulder?

A I do.

Q What is that?

A This is definitely something that will require anti-inflammatories intermittently.

Hopefully, he has not gotten into opioids for this as it is chronic so I hate to put patients on I recommend.

MR. BOTTARI: I have nothing further.

THE COURT: We will take a ten-minute recess. Don't discuss the case.

(Jury exits courtroom.)

(Recess taken.)

(Jury enters courtroom.)

THE COURT: Please be seated. You may continue.

MR. McGUINNESS: Thank you, your Honor.

CROSS EXAMINATION BY
MR. MCGUINNESS:

Q Dr. Hostin, my name is Dennis McGuinness. We have never met before today?

A No.

Q What I would like to do for the jury is maybe define some terms and some concepts for them.

You are familiar with something called an objective finding?

A Yes.

Q And objective means it's something that you can see, you can feel, you can determine through the use of your own senses?

A Correct.

Q You can determine its existence, you can verify it is there, completely independent of anything that the patient tells you?

A Correct.

Q For example, if there is a deformity, you can see that; if there is bruising or ecchymosis, you can see that; if there is swelling, you can see that, correct?

A Yes.

Q And there is some testing that's done that's generally regarded as objective, I'm trying to keep this in lay terms, an x-ray, that's an objective test, correct?

A Yes.

Q CT scan, that's considered to be an objective test?

A Yes.

Q An MRI, similarly, is considered to be an objective test?

A Yes.

Q I mean, some radiologists may read things a little bit differently and there, you are talking about something called interobserver variability?

A Yes.

at something, see the same thing, but call it something different?
A Agreed.
Q And you are aware that there is some effort between radiologists to standardize the language that they use based on findings, correct?
A Yes.
Q Now, you contrast things and reject things that are subjective, it's completely the opposite, a subjective complaint, let's say the patient says, I feel numbness, you can't verify that it exists independent of what the patient tells you, correct?
A I don't know that that's a great example, but there are EMGs that measure lack of feeling but --
Q That's an objective test for lack of feeling, but the statement that the patient makes, that's purely subjective?
A Correct.
Q Similarly, if a patient says, I feel pain, you can't verify its existence independent of what the patient tells you, you are entirely dependent on the patient's word?
A Correct.
Q You are entirely dependent on the patient's

perception?
A Yes.
Q You are entirely dependent on their motivation?
A Yes.
Q Now you talked about doing range of motion testing?
A Yes.
Q And there is basically two types of range of motion testing, active range of motion testing and passive range of motion testing, correct?
A Yes.
Q And active is from the standpoint of the patient, active range of motion testing, the patient is active; passive range of motion testing, the patient is passive, correct?
A Well, I will -- just to clarify, active means yes, they are using their muscles to move their arm. Passive means that the examiner -- I as the examiner am moving their arm.
Q With passive range of motion, normally, when you do range of motion testing for, let's say, range of motion of a shoulder, neck or back, you use active range of motion, correct?

passive range of motion numbers that I am giving you.
Q In all cases where you are manipulating the patient?
A That's how I do it, yes.
Q You don't just simply ask them to raise their hands or lift their hand, you are actually moving it?
A I am.
Q So the jury understands, if you ask a patient to do something and they go, well, I can move it this far, that's dependent somewhat on the patient's effort?
A Yes.
Q If they move it far, I can't move it any further because it hurts, that end point is subjective?
A I completely agree.
Q So active range of motion testing is subjective, correct?
A Yes.
Q Passive range of motion is generally regarded to be objective?
A Correct.
Q Now, you talked about normal values. That's for the population at large, correct?
A Yes.
Q In order for you to determine that a specific

patient has lost something, you need to know what their baseline range of motion was, correct?
A Within reason, so there are some range of motion that are so much an outlier that it has to be abnormal or diminished, but yes, the ideal situation is for me to know --
Q What it was before?
A What it was before.
Q And you mentioned earlier that you liked to do both sides of the body?
A Correct.
Q Because that's an indication of what their baseline is?
A Yes.
Q And you weren't able to do that for Mr. Carter?
A Well, you know what, I know I did it, I just didn't record it, but my norm is to measure both at the same time. I'm not sure why I didn't record it.
Q But when you do that, when you do range of motion, I mean, the whole idea, you can have a patient whose base normal may be 170, 180, but because of conditions, wear and tear, whatever else is going on in their lives, their baseline could be 150?

Q You are talking about degrees, you got 360 degrees in a circle in 60 minutes, so each little minute tick mark is six degrees, right?
A Okay.
Q So when you talk about a 10 degree loss, you are talking about less than the difference between 12:00 and 12:02 which would be 12 degrees?
MR. BOTTARI: Objection.
THE COURT: Sustained.
Q It's simple math.
A I'm sure those are 12 degrees there, yes.
Q You talked a little bit about arthritis and joints. Can you explain to the jury what arthritis in a joint is?
A Arthritis is the loss or damage to cartilage, that white cap that I showed you in the pictures, within a joint, so such that the bones or the pressure now between the bones is not diminished by that cartilage anymore and there is increased pressure between the bones.
Q Now, there are two different kinds of cartilage. One is hyaline cartilage and that's the cartilage that you would find like in the chicken leg?
A Yes.

Q And it's also the same kind of cartilage that you find on the humeral head?
A Yes.
Q It's the same kind of cartilage that you would have in the AC joint, there is actually normally cartilage in there?
A There is some cartilage there.
Q And it's actually a joint, there are ligaments which are bone to bone connections, they form a capsule around it, correct?
A Yes.
Q And there is actually fluid in there to lubricate, synovial fluid within the joint?
A Yes.
Q And what happens over time is as this joint works or as we age, the cartilage wears away; is that correct?
A Yes, that's right.
Q And as it wears away, we can develop arthritis or arthrosis or bone spurs as a result of the wearing away of the cartilage?
A Are you speaking specifically of the AC joint in this instance?
Q Well, yes.

over time, some of that cartilage may wear, but the thing that I would add is that it's very, very common for a patient in their studies, whether it be a CT scan or MRI, to see arthritic changes or things that are called arthritis in that joint, but it is much less common for that joint to actually be symptomatic.

So although those changes may be present, I see them all the time in these reports in patients who have no symptoms in that area and so it's very common, especially in that particular joint, to have a patient who has zero symptoms with x-ray or CT or even MRI evidence of arthritis in that joint.

Q Similarly, I mean, they have done studies of cadavers where a hundred percent of the cadavers have had rotator cuff tears on one side of their body and seventy percent of them have rotator cuff tears on both sides of the shoulders, correct?
A Yes.
Q I mean, these are people in the sixth decade of life, in their fifties, who have never had any injury to their shoulder, correct, no history?
A They are dead.
Q I know they're dead now.
A How do we know?

Q Presumably, there is a medical chart that followed them with them, correct?
A I don't know the exact detail of that particular study. There are certainly studies that show, yes, in patients who have been deemed asymptomatic, they have pathology, but I'm not sure that I can comment any further on that study.
Q To some extent, we are all going to get them?
A To a certain extent, but at the same time, I don't have a door where everyone coming off the street comes in to see me, not everybody has that kind of pathology that they require medical care.

So yes, we are all going to degenerate to a certain degree, but I wouldn't say everybody comes up with arthritic knees or shoulders.

Q I'm not saying everybody goes and sees a doctor.
A Right.
Q But the studies indicate that we're going to have them and may never see a doctor, fair enough?
A I'm not sure that I would agree with that conclusion from that study especially without having looked at it.
Q When you've got this formation of bone that

are talking about a process that takes years, decades, correct?

A Maybe not decades, but it can be years.

Q Several years?

A Okay, yes.

Q I mean, it's not going to occur in the 21 days between the accident and the -- when the CT scan was done here?

A I completely agree with that.

Q In all probability, that CT scan would have looked the same if it was taken the day before the accident?

A I agree.

Q You've got -- you have Mr. Carter's report in your file, you had an opportunity to review it?

A I have it right here. It specifically says mild DJD.

Q Degenerative joint disease --

A Yes.

Q -- of the AC joint, acromioclavicular joint?

A Yes.

Q They don't find any soft tissue swelling?

A It says no soft tissue masses are present.

Q But they don't find any indication of swelling or

that this is larger or there is any edema there?

A It says no soft tissue masses are present, yes.

Q But you know when they do the image, you know pretty much, they are looking at the whole thing in the absence of a statement of a finding as the swelling is usually pretty indicative that it wasn't there?

MR. BOTTARI: Objection.

Q Correct?

THE COURT: He can answer that, if you can.

A Yes, you know, I will be honest with you, so part of training in orthopedic surgery in general is to also review studies, and I often review studies and find things that are not commented on by the radiologist for whatever reason.

Now, I will admit, I didn't look at this particular study because what I was interested or what I was concerned about I knew would not be demonstrated in this study, but just maybe radiologist X, in this case, Michael Hughes, didn't mention anything or didn't mention a particular thing doesn't mean to me that it doesn't exist. I just -- so I wouldn't --

Q At the same time, you didn't ask for the study to read it yourself or ask for a reread as to anything,

A Correct, but, again, I'm seeing the patient, whether there is swelling on the CT scan three months before he saw me wouldn't change how I would treat the patient.

Q I agree, you are here and now, you're doing --

A Yes.

Q When you -- you talked about one of the -- the differences between CT scans and MRIs, one thing the CT scan is good for is detecting iron or blood, correct?

A It can if there is a hemarthrosis in the joint.

Q Or --

A It's not great, but it may show some slight differences within the capsule if there is blood, for example.

Q But it's better than an MRI for detecting blood, for example, someone has a stroke and there is a bleed in their brain, give them a CT scan to determine whether or not there is a bleed?

A I don't agree with that.

Q You don't?

A No. I think that when you're looking for expansion -- they infer things, so there is hollows, so the big contrast between parts of the brain, the soft tissue and the lacunae and a bleed, it's just going to

look different and for their purposes, the CT scan is better, but I don't know that that means it's better at looking at iron or so, but --

Q But one of the first things you should do with someone who has a stroke is to determine whether there is an intracranial bleed?

A Yes, but that's not to say that the CT scan is looking at blood per se. It's looking at blood's ability to move the soft tissues and expand, so it's looking for an expanse of a lesion and not at blood per se and so, that could be tumor, it could be blood, it could be edema.

Q Fair enough. When you -- one of the things you talked about, you talked about a hemarthrosis.

We have got blood going all through our body, but we don't find blood in joints; is that correct, normally?

A Normally, no.

Q When you do surgery, one of the things that you try real hard to do is maintain what you call meticulous hemostasis, right?

A Okay.

Q You don't want blood where it's not supposed to be?

Specifically, meticulous hemostasis, so when we are doing an arthroscopy, one thing I may not have mentioned, it's done with water.

You're looking at items, so you can imagine if you had any bleeding in there, you can't see, you can't do the procedure, so we need hemostasis.

We do different things to maintain that including increasing the pressure of the water. We decrease the patient's blood pressure sometimes, ask the anesthesiologist to do that, so those things kind of keep the blood at bay.

When we do an open surgery, the reason for hemostasis is not that the blood is unhealthy to the joint, but you don't want to leave after you have done your surgery and have things continue bleeding in there.

Q That's right.

A So it's more so that you don't have problems afterwards, not that the blood itself is poisonous or something to the joint, sir.

Q But it is inflammatory to a joint?

A It can be to a certain degree, but, again, it's not a dangerous thing.

For example, if I have a patient who comes in, in the standard of care, if a patient comes in with blood in

the joint, the correct treatment is not necessarily to pull the blood out as if oh, my God --

Q I'm not suggesting that.

A Okay.

Q What I'm saying, there is an inflammatory cascade that happens when you get some blood in the joint, correct?

A I would submit to you that the inflammatory process has happened because of whatever trauma that happened that causes blood to be in the joint.

So blood in the joint usually comes because something is torn and so the blood -- but sometimes, it's not blood. Sometimes, it's fluid, and serous fluid brings inflammatory cascade -- I can't remember the terms, markers, but it's not necessarily blood itself. It's in the fluid.

Q But one of the things, let's say you have serous fluid that does enter the joint, it wouldn't be uncommon, let's say, over the time of an injury over the next hour or two hours to have a joint become very swollen and painful over a period of time, correct?

A It can, yes.

Q Now, the other problem is serum or blood, if it

and adhesions, correct?

A Again, these adhesions and scar tissue come from the trauma and the torn tissues, not the fluid or the blood.

Q You're saying that scar tissue isn't a reaction to the irritant of blood in the joint?

A Well, for example, if I took blood out of a patient's arm and I inject it into the joint, that's not going to cause an inflammatory response.

In fact, it's a treatment that we use for things. People are taking blood out of patient's arms, it's called RPR, and injecting it into the joints to treat arthritis, so I kind of disagree with your statement.

It's not the blood per se. It's the trauma. It's the tears that occurred.

Q Now, you talked about the -- just to kind of clarify a couple of things, the bone in the upper arm, that's the humerus?

A Yes.

Q And at the top of it, the ball, that's what's called the humeral head?

A Yes.

Q Now, you talked about the shoulder blade?

A Yes.

Q And that's the scapula?

A Yes.

Q And on the side of the scapula is a small like you said like a T, that's called the glenoid?

A Yes.

Q That's lined with hyaline cartilage?

A Yes.

Q Around the glenoid is fibrocartilage, correct?

A Called the labrum, yes.

Q Labrum, but it's made up of fibrocartilage, there are actual fibers around?

A Yes.

Q And when you did your surgery and you had examined him, what you found was, you didn't find any tear where this was broken completely loose and you have to go with anchors and reattach it to the bone, correct?

A Yes, if it was completely detached.

Q But you didn't find that in Mr. Carter's case?

A No.

Q You were able to go in there with a shaver and whisk away the broken fibers?

A Well, I don't know that I would say whisk away.

Q Debride?

Q Fine, but use a rotary device and you remove them, fair enough?
A Yes, yes.
Q Similarly, when you examined the bursal surface of the rotator cuff, it wasn't a through and through attachment?
A Detachment.
Q Or through and through tear, there were fibers there and you debrided them using the same burring device?
A Yes.
Q You didn't have to go in there and surgically repair the rotator cuff itself?
A Yes, I didn't have to reattach.
Q Or stitch it up or reattach it or something like that?
A Yes.
Q Now, you can have labral tears by wear and tear, correct?
A They look different. They are not -- but yes, you can.
Q You can have labral tears happen by fraying, wear and tear by fraying?
A Yes, there are different types of tears, that's

one type of tears.
Q And you can have rotator cuff tears that develop over time without trauma, correct?
A They can, yes.
Q Now, you mentioned taking a history from Mr. Carter, is taking history important?
A It's probably more important for you than it is for me, but it's important.
Q I mean, you want to be reasonably thorough?
A Yes.
Q And I mean, you want to look at things like -- you want to know when the onset of complaints were?
A Yes.
Q You want to know if he has prior treatment?
A Yes.
Q You want to know if there is prior injuries, prior surgeries?
A Yes.
Q You want to know his prior medical history, other comorbidities or other illnesses that may impact your decision in care?
A Yes.
Q You want to know whether or not there are other

A Yes.
Q Those items are important, are they not?
A Yes, although, again, I would state that if I was very -- this gentleman came to me for a shoulder pain and shoulder injury and, for example, the fact that he hurt his neck and back in that same injury, I record, but, for example, it may not be so important, other than potentially maybe his neck can contribute to his shoulder pain, but other than that, not crucial.
Q But it's not part of your bailiwick, he was seeing you for the shoulder?
A Correct, but you're asking me about history and you are including other things that may -- for example, the day, July 3, to me is not a crucial date.
It's more crucial to what's going on here, but the fact that yes, he hurt himself five months, six months -- I'm sorry, three months before he saw me, okay, it hasn't been going on for twenty years or five years, yes, that's important, but --
Q Fair enough.
A The history is important, yes.
Q One of the things you mentioned earlier and one of the things that you would explore in the history is the mechanism of injury, correct?

A I didn't explore it more than he was in a car accident.
Q So the jury understands, what the mechanism of injury is, basically, how the forces in the world around us acted on the body part to bring about a cause and injury, correct, in simple terms?
A Could you repeat the question?
Q One thing you're here to answer, just how did the forces that were involved impact the body to bring about or produce an injury?
A Yes, that's sometimes a question.
Q I'm keeping it in lay terms.
A Yes.
Q I mean, you know, even though -- you know that if you have certain x-ray findings, even though you may not be able to image the soft tissue, by knowing the mechanism of injury, you know that there are certain soft tissue injuries that would be associated with a particular x-ray presentation?
A Yes, and also based on my physical exam, and I would argue with you also that whether this gentleman came to me after a car accident or because he fell down the stairs at his home, I'm still presented with --

A -- with his shoulder which hurts and has specific exam findings and I am also handed these CT findings and so, again, the actual mechanism, although sometimes helpful, wasn't that helpful to me in terms of treating him.

Q Okay. You're not -- most of the time, doctor, you don't care how and why, you want to just treat the patient, get him better?

A Yes. I care a little bit, but yes, but I'm treating the patient and his shoulder today.

Q And only in a medical/legal situation do you get involved in the causation issue?

A Correct.

Q Is part of -- to get into medical school, there are certain prerequisites that you had to take, undergraduate?

A Yes.

Q You took cases and took courses in basic physics?

A Yes.

Q Solids, mechanics, properties and materials, things like that?

A Yes.

Q Your undergraduate degree, is it in engineering?

A No.

Q Is it in pre-med?

A Chemistry.

Q Bit of a hard science, but you had to take all this course work?

A I did.

Q And you are familiar with something called inertia?

A Yes.

Q And that's the tendency of something -- that's a tendency of a body in motion remaining in motion?

A Right.

MR. BOTTARI: Objection.

THE COURT: I will allow it.

Q And a body at rest will remain at rest?

A Yes.

Q I want to kind of make a visual for the jury. If you're in a car and you are the occupant of the car --

A Yes.

Q -- and the car strikes a fixed object, the car stops, the seat stops, the body goes forward relative to the car?

A If he hits an object.

Q Right, hits a fixed object.

Q And if you are sitting in an airliner, at the end of a runway and the pilot advances the throttle and the engine revs up and forces from the rear, the plane accelerates, the seat accelerates, the relative motion of the torso is backwards into the seat, correct?

A Okay.

Q Do you agree?

MR. BOTTARI: Objection.

Q It's just the law of physics.

A But you're not finishing, so there is -- you've also got to think about equal and opposite reaction, so just the same way it goes back into the seat, there is a motion that pushes that person away from the seat.

Q And it's the reform -- it's the reform force of the foam in the seat or the metal frame of the seat, correct?

A Sure, so --

Q All right. Well, now, what do you know about Mr. Carter's accident other than it was a rear end accident?

A Nothing.

Q Do you know anything about the forces involved or the speeds involved?

A No.

Q Did you ever see any photographs of the property damages of the vehicles involved?

A No, I did not.

Q Now, the history that a patient gives you, that's purely subjective, correct?

MR. BOTTARI: Objection.

THE COURT: Sustained as to form.

Q Generally, a patient's history is subjective?

MR. BOTTARI: Objection.

THE COURT: Sustained.

Q Did you obtain any objective information from Mr. Carter concerning his history?

A He told me that -- he described his accident as his being rear ended.

Q But now, him telling you, you didn't verify that?

A I don't have a videotape of the accident.

Q So what he told you was purely subjective?

A I wouldn't use that word.

Q You are relying on -- you relied on what he has told you?

A I relied on his history of the accident.

Q And you would agree some patients are good historians, some patients are bad historians?

Q Let me ask you this, if an injury to a collarbone, a fracture to the bone, disruption of the bone, in your experience, is that immediately painful, mandatorily painful?
A Of a fracture of a collarbone?
Q Yes.
MR. BOTTARI: Objection.
THE COURT: You can answer it.
A Yes.
Q It's not going to show up over time, it is at the moment it happens?
A If it's displaced. I mean, every once in a while, you are surprised by what's a stress fracture, but for your average person, yes.
Q And when you do have pain from a fracture, it's going to be localized, it's going to be generally at the point of the fracture?
A Not always, but it's going to be close to that.
Q When you first saw Mr. Carter and he told you he was in a car accident, did he tell you that as a result of this rear end collision, that he hit his head on the dash and slammed his right arm into the dash?
MR. BOTTARI: Objection.
THE COURT: Overruled. You can ask him

whether that's what he was told.
A I don't have that detail written down, so I don't recall that.
Q He never told you that?
A I can't say that he never told me that. I can say that I don't have it in my note and I can say that he didn't write it down in his intake form.
Q Based on inertia, you agree that's somewhat inconsistent with a rear end collision?
MR. BOTTARI: Objection.
THE COURT: Sustained. That's a question for the jury.
A Can you repeat that?
MR. BOTTARI: You don't have to answer it.
THE COURT: You don't have to answer it.
Q Now, if we could turn, if we could, when he gave you the history, he told you that he had -- his initial complaint was pain in his right shoulder?
A I wouldn't say that that's what he told me. He came to me with right shoulder pain and he told me that -- the questions that I asked and so I asked specific questions.
So my intake form says describe your injuries

you as a result of the accident, and I asked him to mark or circle what applies and he checked his shoulder.
Now, I had a discussion with him, so he hurt his shoulder in that accident. I don't know that he said that his initial complaint was of shoulder pain. I think that's stretching what I just told you, but that's the information that I have.
Q But that's the level of the information that you gathered?
A Yes.
Q Now, he told you that he went to the emergency room and x-rays were taken, correct?
A Yes.
Q He told you those x-rays were negative for a fracture?
A Yes.
Q And he brought with him a copy of his CT scan?
A Yes.
Q Or --
A The report.
Q There is no indication of any kind of blood or bleed on the report, correct?
A No.
Q Is that correct?

A Yes, there is no indication of blood in the report.
Q Now, he told you that he had problems sleeping, if you take your arm and you sleep on your upper arm or on your shoulder, you are basically forcing that arm in 180 degrees of abduction, correct?
MR. BOTTARI: Objection.
THE COURT: If he can answer it.
A I wouldn't call it 180.
Q Close?
A But more abduction than I would recommend, yes.
Q That could be painful, right?
A It can be.
Q This is a very common problem with people with impingement in the shoulder, correct?
A Again, so there are people who sleep that way and are able to, but if you have impingement or have hurt your shoulder, it is pretty difficult to sleep like that.
Q But there are people who have that and have never been in an accident, correct?
A Have what?
Q Have a problem sleeping and never been in an accident, correct?

never been in a car accident?
Q Never injured their shoulder?
A In some cases, yes.
Q You made an effort to locate the MRI that he had from the prior weightlifting incident, correct?
A Correct.
Q And he was not able to describe for you the doctor who treated him or the facility he went to or where the imaging was done?
A Correct.
Q I mean, these things, you asked for, you would have liked to have reviewed before you treated him further?
A Again, what I mentioned earlier is, I have a patient before me and I'm treating him now. The request was made just because he is a very sick guy and I really wanted to avoid surgery, if I could.
I thought maybe the MRI information would actually help me not do the surgery, although I didn't have it, but he continued to be symptomatic and as I tell my trainees sometimes, you treat the patient, not the imaging.
Q Not the film, right. But it is, again, his complaints, they were subjective, correct?

MR. BOTTARI: Objection.
THE COURT: Sustained.
Q He continued to complain of pain, correct?
A Yes, but he also had decreased range of motion and objective measures of shoulder issues, shoulder problems.
Q And you don't know how long he had it, it's just by virtue of him telling you that it occurred at the accident that you infer it came from the accident, correct?
A Partially. I also have no -- there is no records showing that he has had previous care for his shoulder other than the remote injury, but I have not been shown anything in terms of treatment for his shoulder before this incident.
Q But then again, he was unable to provide you those records, correct?
A Correct.
Q And not having those records doesn't mean that it didn't happen, correct?
MR. BOTTARI: Objection.
THE COURT: He can answer that.
A I would agree with that.

thing that you -- I believe you indicated that you examined was the glenoid humeral joint?
A Yes.
Q And that's where you found a tear, the two tears, one in the superior labrum, one in the anterior labrum?
A Yes.
Q These are two separate discreet tears, you showed them in the photograph, these were fibrous, like the fibers were broken down, correct?
A It was more than that, but that's just what I captured in that image.
Q You were able to debride them with the shaver?
A Yes, correct.
Q I believe that you also used a laser to ablate them?
A I don't -- I don't like when people use the word laser, but it's just joking a little bit, but I have a lot of patients who call this laser surgery and we haven't used lasers for these type of surgeries since the nineties, but it's a thermal ablation wand, it's kind of a heat wand, but yes, we use that.
Q I didn't -- it's kind of like if you have a thread hanging from your shirt or your suit and you -- rather than pull it out and pull the whole thing out, you

put a lighter or match to it and it kind of scorches it off, not that simple, I'm trying to keep it in lay terms?
A I wouldn't describe -- the thread indicates that it's a nothing thing, so when you're done --
Q Not at all.
A -- you're back to a normal labrum, so --
Q The tissue is gone, you're not -- it was there, if it was broken down because of fraying, you want to smooth it out where it doesn't interfere with bone movement?
A Correct.
Q Not suggesting that it's going away, but there are multiple causes for it.
Now, you also removed a number of adhesions?
A Correct.
Q And there were several of them, right?
A Well, yes, think of it almost as a sheet, not like an adhesion here and another one there, but several in this area.
Q And they can restrict motion too?
A Absolutely, and that's what I was alluding to earlier, so how a labral tear can restrict motion, unless it's an entire labrum coming off, the irritation and you

fluid in the joint, but from the trauma of the torn labrum and this is exactly why over time following the accident, he continued to have loss of range of motion as these adhesions developed further and further from the intra-articular trauma, the labral tears.

Q But after you did -- you also examined the AC joint capsule --

A You know what --

Q -- and you looked at the end of the clavicle and you found that the end of the clavicle had been damaged?

A No --

Q If you would, read your report on that, doctor, your operative report, first line, last paragraph.

Next, attention was directed towards the distal clavicle, this was found to have been injured.

A Yes, but I think you are misinterpreting this.

The distal clavicle or the AC joint was found to be injured before the surgery started. That's why it's in my preoperative diagnosis, the AC joint arthropathy.

So when I -- I think the sentence is misleading, but the point was, we have an injury to the AC joint and that's why I directed myself to the distal clavicle because I'm going to remove and that was the preoperative plan, not based on what I found at surgery.

Q So you're saying that it was arthritic and not injured?

MR. BOTTARI: Objection.

THE COURT: Overruled.

A No. What I'm saying was that the treatment was not based on what I found at the time of surgery. The plan was to remove the distal clavicle preoperatively.

Q I understand, but while you are evaluating the distal clavicle is when you made the observation and when you did -- you wrote the report, probably dictated it after the surgery?

A I did.

Q And that was a finding that you noted during the course of the surgery?

A One thing, again, I'll make you familiar with this, the AC joint is a very tight joint, you can't fit the camera inside the joint, and so, you can't look at the end of the clavicle until you have already cut it so now you could fit your camera in.

You can remove a little bit of the acromion and see an edge of it, but, again, the plan was to remove the distal clavicle.

There is no surgery in which we examine the resect it because by the fact that you're looking at the end of the clavicle, you have already kind of screwed that joint up.

So if you're not planning on removing it, you shouldn't be looking at it, so I think that sentence, I think you misinterpreted that sentence.

Q Okay, it says what it says.

A I'm sorry?

Q It says --

A Well, it says, this was found to have been injured.

Q I mean, I didn't write it, you did?

A Correct. Preoperatively.

Q You didn't write this preoperatively?

A Found is a past tense word. I found preoperatively that this was injured.

Q It doesn't say preoperatively?

A No, it doesn't.

Q And in the context that it's while you're looking at -- what you actually say, your attention is directed towards the distal clavicle, this was found to have been injured, so it's in that context, you are actually -- you're looking at the distal clavicle, I'm not going to argue, but these are your words, you wrote it?

A I understand, maybe it was poorly worded, but I'm glad I could explain it to you.

Q Not a problem, not a problem.

One thing that you do is you indicated you used a burr and you smoothed out the underside, if I could?

A Yes, please.

Q This being the AC joint here?

A Yes.

Q You smoothed out the underside of the acromion?

A Yes.

Q Did you also -- there is this ligament here?

A Correct.

Q That's the coracoacromial ligament?

A Yes.

Q You removed that as well, you took it down?

A I elevated it off the acromion, yes.

Q And that's to allow more space for the rotator cuff to pass underneath it or at least a portion of the rotator cuff to pass underneath it?

A Yes.

Q To create even more space, you removed about 10 millimeters, about 25.6 millimeter, .4, .6 millimeters to an inch?

Q Ten millimeters?
A Ten millimeters, and that's not the same space that we are creating, so one was the subacromial space to give more room for the rotator cuff --
Q Right.
A -- and in that case, the second case for the distal clavicle, that was to --
Q Separate the two bones so they don't rub against each other?
A Yes.
Q Sometimes, that's called a Mumford procedure?
A Yes.
Q But the whole idea is to stop the -- I mean aside from fixing the tears or debriding --
A Debriding them.
Q Debriding the tears, debriding the rotator cuff tear, the main alteration you did on Mr. Carter was you removed -- you increased the subacromial space, correct?
A Yes.
Q And you removed the distal clavicle so the two of them aren't rubbing together?
A Yes.
Q And you would agree that the degenerative disc disease, all be it the report was mild, those two

procedures were basically oriented to alleviate that problem, correct?
MR. BOTTARI: Objection.
THE COURT: Sustained.
Q Do those two procedures, the acromioplasty and the Mumford portion of it, do they give extra space -- do they alleviate the symptoms of the impingement in Mr. Carter's case, they are intended to?
A Yes, and the -- the reason the procedures were necessary were not because the CT scan shows that there is mild AC joint DJD, degenerative joint disease, that's one, and the impingement is the second other procedure in quotes that you mentioned, again, it didn't occur because he had some -- or it wasn't performed because he had impingement that preexisted his injury.
The impingement, it's sort of a back-up procedure. It's something that often is done when you do a bursectomy, when you're cleaning out the subacromial space. It further guarantees or allows that this is going to be successful.
Some surgeons doesn't do the acromioplasty, for example, and rely -- it just leaves less room for error, so to speak, and the distal clavicle resection was a joint, not because he had the mild AC joint arthritis on the CT scan, but because he had symptoms there that didn't get better with conservative measures.
Q And the only information you had when I believe you told the jury earlier that this is similar to a fall on an outstretched arm, correct?
A What do you mean that's the only information I had?
Q Slamming his right arm into the dash, if that, in fact, happened creates the mechanism of injury?
A You used the term the only information I had, I'm not sure --
Q The only history information you had about the happening of the accident --
A Okay.
Q -- was that this was a rear end collision?
A Yes.
Q And the mechanism of injury that you described to the jury earlier was that this injury could only be caused by someone slamming their arm or not only, but one of the mechanisms of injury would be that someone is falling on an outstretched arm?
MR. BOTTARI: Objection.
THE COURT: Sustained.

Q You mentioned earlier about falling on an outstretched arm?
A Yes.
Q And that was a mechanism of injury you believe was the mechanism of injury in Mr. Carter's case?
MR. BOTTARI: Objection.
THE COURT: Sustained.
Q What was the mechanism of injury for Mr. Carter?
A He was rear ended.
Q And thrown into the dash?
A This was information I learned recently, but what I was advised was that he was in a rear end collision.
Q So all the questioning about falling on an outstretched arm didn't mean anything, you didn't have any basis to say that that was the mechanism of injury here?
MR. BOTTARI: Objection.
THE COURT: Sustained.
Q You testified earlier that something about falling on an outstretched arm, are you saying that was the result of rear end contact?
MR. BOTTARI: Objection.
THE COURT: I will sustain it as to form.

Honor.

THE COURT: Sustained as to form.

Q When you told the jury earlier and you spoke about it being similar to -- striking the arm is similar to falling on an outstretched arm, was that your belief that that was the mechanism of injury in this case?

MR. BOTTARI: Objection.

THE COURT: Can you answer that question?

Q Yes or no.

A I was asked the question that -- I believe the question was, assuming that his arm was out against the dashboard when the collision occurred, could that be a mechanism of injury and given that scenario, I said yes and then I compared it to another common mechanism and then went on to explain that.

Q I mean, there is no evidence in this case or has ever been presented to you that there was a direct blow or direct contact to the point of the shoulder, correct?

A Again, I was given this information --

Q But you know of no evidence of that?

A No.

Q Is that correct?

A I have no evidence of that.

Q You have no evidence of any swelling or bruising

or ecchymosis, any kind of direct injury to the point of the right shoulder, correct?

A I don't have that information, no -- correct.

MR. McGUINNESS: Thanks, doctor.

THE WITNESS: Thank you.

THE COURT: Counsel?

MR. NASTRO: Nothing further, your Honor.

THE COURT: Anything further?

MR. BOTTARI: Just briefly, your Honor.

REDIRECT EXAMINATION BY

MR. BOTTARI:

Q Doctor, one of the things you mentioned before was, quote, unquote, clinical correlation; am I right?

A Yes.

Q You did not see any prior MRIs?

A Correct.

Q And you were not aware of any information ever that anyone had showed you either today or before today about prior injuries to this gentleman's right shoulder; am I correct?

A Well, he had the one injury --

Q Other than the weightlifting injury?

A Correct, no other evidence or history of other

Q Now, you were asked if there were what was called full thickness tears; am I right?

A Yes.

Q There were no full thickness tears when you went in there, into his shoulder, correct?

A That's correct.

Q By the way, have you ever heard the term gold standard with regard to MRI or arthroscopies or CT scans?

A Yes.

Q What is the gold standard?

A So the concept of a gold standard is think of the following, so imagine an MRI and it's a new test, I mean, we get new stuff all the time.

At that time, okay, we got this funky new thing, we can put a magnet on people and get these pictures and the question is, well, is this really -- is this really -- what do we see with this picture, how do we know this means anything.

You have to compare it to what's called the gold standard and for MRIs, in particular, when it comes to soft tissue injuries in the joint or around the joint, the gold standard is arthroscopy, so there is tests, there is studies.

We talked about literature that basically says,

okay, this is what we found on MRI and this is what was found at the time of surgery. This is the gold standard. This is what we compare ourselves to.

Then we say the MRI, okay, it's very close, 98 percent is often the number that's used. This correlated with what was found at the time of the surgery, that's the gold standard.

Q So the surgery is the gold standard?

A The findings at the time of surgery.

Q Because you are actually in his shoulder?

A I'm right there.

Q You are actually seeing the tissue?

A Correct.

Q You are aware of studies that show false positive or false negatives with regard to MRIs, correct?

A Yes.

Q That's what you're talking about?

A Yes.

Q You're in the shoulder. So can partial thickness tears cause pain?

A Absolutely. They actually, ironically, are very often more painful than full thickness tears in some cases.

A You know, it's hard to say one hundred percent, but most people say that there is uneven tension, so you can imagine that normally, it was a full pull. Now, you are relying on the same amount of tension on a smaller area.

It's almost like if you could lift ten pounds with your whole hand, but now I ask you to do it with your pinky, the pinky is not going to like it. It's kind of the same thing with the partial tear, smaller amount of tissue has the same job now.

Q And there were what, three partial tears?

A Yes.

Q And those partial tears could cause inflammation, correct?

A Definitely.

Q And pain?

A And pain.

Q Now, you fixed the partial tears.

A Well, we debrided them, so we even it out so that it became more even, so that the tension was distributed more evenly.

Q Well, when you saw Mr. Carter in April of 2014, he basically told you he had no pain in his shoulder, correct?

A I think he had said he had some intermittent pain, but it was better than before, so he said he had intermittent symptoms with overhead reaching, so some, but not constant as he had had before the surgery.

Q And one of the main things that you commented on was the fact that according to Mr. Carter, he was asymptomatic prior to the accident in July of 2012, correct?

A Yes.

Q And you have seen nothing other than the weightlifting incident to indicate that he had had any problems with his shoulder, correct?

A Correct.

MR. BOTTARI: I have nothing further.

MR. McGUINNESS: Just a short cross.

RECROSS EXAMINATION BY

MR. MCGUINNESS:

Q I don't want to be facetious, doctor, but there is nothing -- when you do the examination, you are actually observing the tissues, there is nothing on the tears that dates them as to when they happened, correct?

A They were not a ten-year old tear, but I couldn't date it between six months and ten months. That's

Q But you didn't date it when you did your report, correct?

A That's not -- it's not something that we do, no, I did not date it.

Q And the same thing with adhesions, you have no idea when they first happened or how long they had been there, correct?

A Yes, but, again, adhesions correlate with loss of motion. I treated a patient that to my understanding had no issues before July 3, 2012, and so for me, adhesions have been accumulating over the past six months. I think that's about the time I did the procedure.

Q Adhesions can accumulate over time?

A Yes, but, again, they correlate with loss of motion and, again, everything that's been presented to me and that I had, information-wise, was that the loss of motion has been going on since July 3.

Q And that's based entirely on the history Mr. Carter gave you?

A Partially, but also, I mean, I saw the patient two times before the surgery and even between those two time points, there was decreased range of motion that I would correlate with worsening adhesions and so, I don't know, if this had been present for many years, I don't

know that I would -- there would be such a decline so quickly over the course of two months.

Q We are only talking about in that two months, about five degrees, right?

A No, it's about fifteen, but --

Q Five on one, ten on the other?

A It was significant. I mean, so you mention this clock face thing and you know what you failed to add to that is that the lever arm is very important and so if you lengthen the arm and what you're measuring, rather than looking at those little two points on the clock, the two ticks for twelve degrees, which is about that big, maybe on that clock, but at the end of an arm this big, it's longer, so the difference between 15 degrees or 95 and 110 is very easily measurable with the goniometer, and it's not insignificant.

Q But the goniometer, the wings are what, eight, ten inches long?

A Yes, but I put them against the arm so the arm has a much longer thing and I could point towards the end of the arm as the angle and it's not as deceptively small as what you might see on a clock.

Q But a degree is a degree?

different.

MR. McGUINNESS: Thank you, doctor.

MR. BOTTARI: Nothing further.

THE COURT: Thank you, doctor. You can step down.

MR. BOTTARI: You can take your file. Don't take what was marked in evidence.

THE COURT: It is late enough that we can break for tonight. I do have some other matters on tomorrow morning, so I'm going to ask you to come in at about 10:15 or 10:30 and we will continue with Mr. Carter's testimony and then we will have a medical witness in the afternoon.

Enjoy your evening. Don't discuss the case. We will see you at 10:15.

MR. BOTTARI: The witness in the afternoon is 1:30.

THE COURT: We are getting a late start in the morning, but we will get an early start in the afternoon, we will start at 1:30 tomorrow afternoon. Adjust your plans if necessary.

MR. BOTTARI: Thank you, Judge.

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