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2 (Jury enters courtroom.)

3 THE COURT: Be seated, everybody.

4 Mr. Bottari, proceed.

5 MR. BOTTARI: Your Honor, the Plaintiffs call

6 Dr. Michael Gerling.

7 MICHAEL GERLING, called as a witness on

8 behalf of the Plaintiff, having been duly sworn,

9 testified as follows:

10 THE COURT: State your name and business

11 address.

12 THE WITNESS: Michael Gerling, G-E-R-L-I-N-G,

13 506 Fifth Avenue, Brooklyn, New York 11215.

14 THE COURT: You may inquire.

15 DIRECT EXAMINATION BY

16 MR. BOTTARI:

17 Q Good afternoon, Dr. Gerling.

18 A Good afternoon.

19 Q Prior to today, have you ever met me?

20 A No.

21 Q Did we speak last night with regard to this case?

22 A Yes.

23 Q Have you ever testified in court before?

24 A Yes.

25 Q Do you know the difference between a Plaintiff

2 focuses on musculoskeletal care, so any of those

3 surgeries you have heard of where people replace joints

4 or nerves -- bones, broken bones, fixing the spine, we

5 do a lot of different types of surgeries on adults and

6 children, so that's a large field and within it, it has

7 eight subspecialties, one of which is spine surgery.

8 After you finish your residency, you can go and

9 do a fellowship to subspecialize in one of those, so

10 afterward, in 2005, I went to Cleveland and did a

11 fellowship for one year with Henry Bohlman, so at Case

12 Western, I was there for a year.

13 It's a specialty center which specializes in

14 trauma and degenerative disease, so it's a site for

15 helicopters that bring in traumatized patients from four

16 different states.

17 It's very -- it was one of the original spinal

18 cord injury centers in North America, so it's very

19 focused in trauma, but also degenerative changes of the

20 spine, so when people have arthritis that causes spurs in

21 bone particles to pinch nerves, people have deformity,

22 things like that, from arthritis, that's degenerative

23 medicine of the spine.

24 So after finishing in 2006, my first job was in

25 Brooklyn at SUNY Downstate campus, an academic center

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2 and a Defendant?

3 A Yes.

4 Q You usually testify for Plaintiffs or patients?

5 A The only time I testify in personal injury type

6 lawsuits is for a patient that I operated on.

7 Q Have you ever testified for the William Schwitzer

8 office prior to today?

9 A Yes.

10 Q About how many times?

11 A I would guess four times over the years, five

12 times, I don't know.

13 Q Do you anticipate being compensated for your time

14 away from your practice today?

15 A I would assume so. I don't make those

16 arrangements.

17 Q Do you know how much you are being compensated?

18 A Normally, \$8,000 for the half day.

19 Q Can you briefly, and I mean briefly, give us your

20 educational and professional background?

21 A Yes. So I went to medical school in California

22 at UC San Diego. I was there for four years. I

23 graduated in 2000 and then I did an orthopedics residency

24 for five years.

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2 where I was there for four years.

3 By the time I finished there, I was the chief of

4 research and the chief of spine surgery and I was

5 transferred to -- I was offered a job at a level one

6 trauma center in Brooklyn called Lutheran Medical Center

7 where I was there for four years.

8 As an employee, I was the chief of spine surgery

9 there, taking call on level one trauma patients and

10 treating patients with traumatic and degenerative

11 problems of the spine.

12 After four years there or during that period,

13 actually, I became a faculty member at NYU and I

14 continued to do research that I had been doing all along

15 through the NYU campus at that point and doing larger

16 scale surgeries on that campus, in parallel with being at

17 the Lutheran campus.

18 Subsequently, now, that campus became NYU

19 Brooklyn and so I continue to be at NYU since 2014. I'm

20 still the chief of spine surgery at that center.

21 I do the same type of practice that I had been

22 doing throughout, degenerative and traumatic injuries of

23 the spine.

24 My group continues to take call in the hospital

2 or even light trauma, so whatever comes through the ER is
3 fair game.

4 We also see a lot of patients in the office that
5 are referred to us, not from the ER, but also just from
6 the community, so we have a very large practice and I
7 have a junior partner that works with me as well in that
8 practice.

9 I'm very academically involved still through NYU.
10 I train residents, medical students, nursing students,
11 technician students, all different types of students will
12 work in the operating room with me and in the office. I
13 teach them basically how to practice clinical spine
14 surgery, really.

15 I also am very involved in academic societies
16 where I train other surgeons from other parts of the
17 country and the world, really.

18 I'm on the Board of Directors of the Cervical
19 Spine Research Society. I'm the president of the
20 Federation of Spine Associations in 2020, I think, so the
21 Federation of Spine Associations is -- it's an
22 association of all the major academic societies.

23 There are about four of them that are sort of
24 ordaining over the different sectors of spine surgery,
25 like one of them is deformity, one of them is spinal cord

2 medicine and in particular, spinal surgery.

3 We use the data from these studies in order to
4 gear the standard of care and create the standard of
5 care.

6 Peer reviewed means that other academic spine
7 surgeons have reviewed that research and deemed it
8 appropriate to be published and reasonable, so I'm very
9 involved in that.

10 I still teach primarily in these instructional
11 course lectures that are associated with major societies
12 such as the Lumbar Spine Research Society, giving
13 lectures. I gave four at that meeting.

14 I am at the Cervical Spine Research Society, the
15 academy giving instructional course lectures to other
16 surgeons and other type of mid level providers like
17 physician assistants or nurse practitioners.

18 Q Doctor, have you ever received a grant for any of
19 your work?

20 A I've had an NIH grant in the past.

21 Q And NIH is National Institute of Health?

22 A Yes, and we have had the Cervical Spine Research
23 Society grant. I haven't had anything else recently.

24 Q Well, you mentioned peer reviewed journals,
25 approximately, ballpark, approximately, how many peer

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2 injury, one of them is the Cervical Spine Research
3 Society, the other is the North American Spine Society.

4 So we run the academic education day at the
5 American Academy of Orthopedics and through the -- I am
6 also involved in the American Academy of Orthopedics as
7 one of the members of the spine content educational
8 committee which the Academy of Orthopedics is set up.

9 So we are the ones who are sort of streamlining
10 and creating a sort of a central body of education and
11 standards of education for spinal surgeons in North
12 America, so I have been very involved in that.

13 Within their umbrella, we have created a lot of
14 instructional course lectures. I am involved in a lot of
15 different educational materials that are produced
16 including chapters for textbooks.

17 A lot of peer reviewed journal articles, I
18 publish on a yearly basis. I go to meetings and present
19 primary research, probably four times a year.

20 I think that my group at NYU, we are responsible
21 for probably about fifteen basic science studies per year
22 and of those, some of them, I am particularly a direct
23 author on the publication, so these peer reviewed
24 journals are -- they are considered the highest level of

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2 reviewed articles have you been an author or co-author
3 of?

4 A You know, I haven't really counted in a long
5 time. I'm going to guess 20 to 30, 30.

6 Q Do you know what an abstract is?

7 A Yes.

8 Q Can you tell us what is an abstract is and have
9 you ever been involved in publishing an abstract?

10 A Yes. Abstracts are the first summary section of
11 an article and in theory, when you give a podium research
12 presentation at a meeting, you submit the abstract and
13 that's what's accepted at the meeting, so I mean, I
14 presented three different abstracts at just the Lumbar
15 Spine Research Society in April, so the beginning of the
16 month.

17 Q April of this year?

18 A Yes, yes, so I am regularly involved in
19 submission and acceptance of those papers.

20 Q Can you tell us what grand rounds are and are you
21 involved in that?

22 A Well, when you are invited as a lecturer to
23 different institutions and what not to teach if you're
24 deemed to be an expert in a certain subject, you will

2 through grand rounds, directly with residents and
3 fellows.
4 More often, on a regular basis, I am -- like on
5 Monday, I was in the operating room with a resident, so
6 teaching him what we do.
7 Q Have you or your group ever gotten any awards in
8 the orthopedic field?
9 A Yes, we have, yes.
10 Q You are Board certified, of course, correct,
11 doctor?
12 A Yes.
13 Q Can you tell us briefly what Board certification
14 is and what is your particular specialty and area of
15 expertise in that field?
16 A So when you graduate from your training, you take
17 a written test by the board, the American Board of
18 Orthopedic Surgery, and that's something that is also
19 universally taken by graduates of training programs.
20 Then after two years in practice, you have an
21 expert panel review literally the work that you do, so
22 the MRIs and postoperative x-rays and what not on the
23 patients you treat on their charts and see how they did,
24 so it's sort of like a trial to see how you did in your
25 first two years of practice and whether you are

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2 appropriate for certification.
3 So after I passed my two years and passed the
4 test and became Board certified, every ten years, you get
5 recertified, so I recently in 2017 was recertified, so
6 that now, I am Board certified until, I think, 2028, so,
7 yes.
8 Q Did there come a time when Mr. Edward Carter
9 became a patient of yours?
10 A Yes.
11 Q Do you know how he was referred to you?
12 A Yes.
13 Q You can look at your notes, we have actually
14 marked some of your notes in evidence and we have already
15 marked in evidence the hospitals where you did the
16 surgeries on Mr. Carter.
17 A I believe he was referred to me by his primary
18 care doctor, Dr. Williams.
19 Q When was the first time that you saw him?
20 A On October 29, 2014.
21 Q At that time, can you tell us, did you take a
22 history, did you ask him what his complaints are? Just
23 go through what you normally do and what you did at that
24 time and as I said, you can look at your notes to refresh

2 A So, actually, I know Edward quite well because I
3 saw him a lot and he was a very difficult case because of
4 his comorbidities and because of the extent of the
5 challenges we had with diagnosing his problems.
6 So at the time when I first saw him, he was 52
7 and he had been injured in a car accident. He was --
8 the accident occurred on July 3, 2012.
9 He had neck and back injuries in addition to some
10 other extremity pains. He had pain radiating into his
11 shoulders, into his right arm and hand. He had numbness
12 in his right upper extremity. Actually, he had, I guess,
13 numbness extending into both extremities.
14 He had pain in his back that went down into both
15 legs. He had difficulty carrying out regular daily
16 activities since the injury. He had not been working.
17 He reported clumsiness in the hands, weakness in
18 the right upper extremity, balance problems that caused
19 him to trip.
20 He had occipital cervical headaches, that means
21 that he had pain radiating from the neck back into the
22 back of his head which is a characteristic finding of
23 neck problems and he said that that was occurring almost
24 all of the time.
25 He had difficulty walking, due to the leg pain,

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2 even one block at a time. He said that the pain was
3 worsened when he stood up or walked, that he had
4 undergone three months of physical therapy for the neck
5 and the back.
6 He had tried Tylenol and Tylenol Number 3 which
7 is a narcotic that has Codeine in it, basically, so it's
8 a medicine that he had been taking that's a little bit
9 stronger. He had tried injections twice in the back
10 without substantial relief.
11 That day, we reviewed his comorbidities, the
12 other medical problems he had which included heart
13 failure, high blood pressure, diabetes. He had obesity.
14 We reviewed the fact that he had undergone knee
15 surgery on the right -- bilaterally, one on the right in
16 2005, the other 2007. We did a physical exam on him that
17 day.
18 Q What type of physical exam do you do and what's
19 the clinical significance of that, doctor?
20 A Well, physical exam is where -- so the first --
21 everything I just told you was really what we discussed.
22 It's verbal.
23 In the physical exam is when you actually record
24 and measure different aspects of a person's being, so you
25 --

2 help diagnose and refine your diagnosis through that.

3 So in general, I reviewed that his low back had

4 significant restricted range of motion, so he had

5 difficulty moving his back, his neck as well. In both

6 his neck and his back, he had spasm and tenderness.

7 Q Doctor, let me ask you this. A, what is spasm

8 and B, can you fake it?

9 A Well, spasm is involuntary, so by definition, you

10 don't.

11 Spasm is when you don't -- you don't want to,

12 but your muscle is contracting, so you're not actually

13 purposely intentionally tensing up the muscle.

14 It's a protective reflex the body has in order to

15 protect your spine if the body thinks that there is

16 something wrong with it, so, for example, if five hundred

17 years ago, you were alive and you broke your back, well,

18 what would keep you alive longer.

19 Well, if you had the muscles tense up and tighten

20 up, it would sort of be like a splint to hold you stable

21 or at least help you be stable and also, probably

22 restrict your activities a little bit until the body had

23 a chance to try and heal it, so it's a protective reflex

24 that the body has. It's palpable.

25 I mean, anybody who has had a calf cramp or what

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2 not, that's a spasm of the muscle and you certainly don't

3 like it. It doesn't feel good. Nobody would involuntary

4 do that. It does restrict the motion too, so your body

5 is intentionally trying to stop you from moving your back

6 or your neck.

7 The point of recording that is really that people

8 have spasm and tenderness when they have an injury at

9 that site, so you don't normally just spontaneously walk

10 around with tenderness in a spot, a focal tenderness.

11 That's how we diagnose things. We look at the

12 sites, we touch them, we try to identify where it is most

13 tender and if there is spasm or instability, those are

14 the types of things we record.

15 Anyway, those were the findings. They were

16 significant in his neck and back.

17 I looked at his extremities. I did not find any

18 significant evidence of pinched nerves in his upper

19 extremities so we test to see if people have carpal

20 tunnel or cubital tunnel syndrome by tapping on the

21 places where the nerves are and we try to investigate

22 whether there is evidence that the nerves are being

23 irritated in the arm or leg and I did not find any

24 evidence of that.

2 he had weakness in the lower extremities, in both legs,

3 both in the -- in his quadriceps muscles, his hip

4 flexors and also in his extensor hallucis longus muscles

5 which is -- that's when you left your toe up and if you

6 have weakness in that, it suggests that the nerve that

7 controls that muscle is either damaged or not working

8 properly.

9 Q Let me stop you right there.

10 What nerve are we talking about, from what --

11 A That's the L-5 nerve root and that nerve root was

12 found to have two grades of weakness on the left side, so

13 that's the L --

14 Q Can you describe for us the zero to five scale

15 of --

16 A So if somebody has five out of five strength,

17 that means that they have normal full strength.

18 If they have a grade of weakness, that means that

19 they have four out of five. If they have two grades,

20 that means three out of five.

21 Zero means you can't even tense your muscle or

22 get the muscle to fire at all, somebody who is completely

23 paralyzed, but then people can have three out of five

24 strength which means that you can move the joint, but you

25 don't have enough strength to really break gravity.

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2 Four to five would mean that you can break

3 gravity, but you really don't have a lot of strength to

4 resist any type of force, so that's -- I mean, that's a

5 direct test that I performed with my hands and it's

6 something that is -- when you performed thousands and

7 thousands and thousands and thousands of those tests, you

8 have a pretty good sense of whether it is real or not

9 real.

10 It's something that in theory, the patient has

11 some control over, but you can, as a clinician, you can

12 detect whether or not there is -- whether there is

13 effort. And usually, if there is not effort, you make

14 note of that.

15 He also had weakness of the upper extremities

16 including his triceps muscle on the left side, his grip,

17 so weakness in the hands bilaterally.

18 He had blunted reflexes in the upper extremity

19 and the lower -- in the lower extremity, so what does

20 that mean.

21 Well, if a nerve is being pinched that goes to a

22 certain area of the body, that nerve doesn't function or

23 react the same way it normally would because it is either

24 delayed or the signals aren't going through the nerve

2 So if a reflex is decreed, then that means that
3 the nerve is not functioning as well, so we have reflexes
4 that we test in order to test each nerve root and in this
5 case, I found that he had blunted biceps reflex, so that
6 means that the nerve that controls that biceps reflex was
7 being pinched and that's typically the C-6 nerve root or
8 C-5.

9 Q C-6, we are talking in the neck, the cervical --

10 A Right, the cervical --

11 Q 6 out of the 7?

12 A Right, so that's a reflex that comes from the
13 neck down into the arm and that nerve root is associated
14 with disc herniations at the C-5-6 level.

15 He also had reflexes in the lower extremity, they
16 were blunted as well.

17 The patella reflex which I have in my note is the
18 reflex that when people tap on your knee and your foot
19 jumps, that reflex is the L-4 reflex and so that reflex
20 was flattened as well.

21 Bilaterally on both sides, he had -- he had
22 abnormal heel cord reflexes which is the Achilles tendon,
23 when you hit the heel, which is the S-1 nerve root.

24 During my examination, he had numbness in his
25 fingers and in his toes and I also reviewed a CT scan

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2 that day of his neck and his back and his right shoulder.

3 The CT scan was from 2012 and CT scans are
4 performed --

5 MR. McGUINNESS: Can we get a question and
6 answer?

7 Q Doctor, can you tell us the difference between a
8 CT scan and an MRI and why you deem -- what you deem
9 significant about each with regard to soft tissue
10 injuries as opposed to fractures in bones?

11 A Sure, right. So a CT scan is similar to an
12 x-ray. If you have ever seen an x-ray, it just looks
13 like you see the outline of a bone.

14 The reason for that is that CT scans shoot a beam
15 of radiation through you and what stops the beam is
16 calcium, basically, the calcium that's in your bones so
17 that mineral that's in the bones, that density is what
18 you see on the x-rays, and we're going to review an x-ray
19 later today and you will be able to see that.

20 CT scans are really the same type of technology,
21 but instead of just being a blanket picture of you, it's
22 actually a slice through you, so you can see everything
23 in detail in slices, so it's very popularly used to image
24 the bones.

2 for a broken bone or for spurs or other type of
3 abnormalities in the bone itself.

4 It's not great for looking at soft tissue that
5 doesn't have mineralization, so discs, especially a fresh
6 disc herniation that wouldn't have any calcium at all in
7 it, or nerve, for example, they don't really have
8 minerals in the nerves, typically, that's why it's not so
9 great for looking at those.

10 Sometimes, you can see shadows and you can see
11 the outlines and, particularly, the more aged a structure
12 is that's been damaged, the more likely it will show
13 different aspects on a CT scan.

14 An MRI is very different. An MRI is literally a
15 magnet that slices through your body, the same way a CT
16 scan does, but the MRI is a magnet.

17 So magnets are able to distinguish the difference
18 between soft tissues like, for example, water, liquids
19 that are in the body, like blood or like the fluid around
20 the spine, the nerves, the discs and what not.

21 So MRIs are more commonly used to evaluate those
22 things, but because of the presence of the strong
23 magnetic field, we can't always use it.

24 Sometimes, people have metal shrapnel in them or
25 a debridement, as in this case, that prevents you from

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2 being able to use a big magnet.

3 The magnet would pull those tissues around where
4 the metal is or they would damage the implant, so like in
5 this case, a debridement would get damaged by the magnet.

6 Q So you said you reviewed a CT scan, CT scan from
7 2012, correct?

8 A Yes.

9 Q And what, if anything, was significant when you
10 reviewed those CT scans?

11 A The main thing that was significant really was
12 that it didn't show any fractures, any broken bones.

13 It was a very early study that was done very soon
14 after the accident had occurred, so really, what you
15 would expect to see is if there was a broken bone or if
16 the bones had shifted because the bone was dislocated or
17 literally shifted in its position because of the extent
18 of the injury.

19 Typically, we would see that in people who have
20 extremely high energy injuries, like if you fell off a
21 building, literally got run over by a truck or something
22 like that, you would expect to see fractures, you would
23 expect to see completely dislocated bones, that type of
24 thing.

2 like skull fractures, things like that. But when we use
 3 that, we don't -- we're not -- we are really using it
 4 as a screening tool to look for something that's
 5 catastrophic that really needs to be treated immediately
 6 at that moment.

7 Q In a perfect world, if Mr. Carter did not have
 8 the defibrillator, the better technique would have been
 9 an MRI, correct?

10 A Yes.

11 Q Now, as a result of your initial screening of
 12 him, your physical exam, the tests you did and everything
 13 else, did you, in fact, order any tests at that point in
 14 time?

15 A Well, at that point, we recommended, because he
 16 couldn't have an MRI, that he continue with physical
 17 therapy, that he continue with taking the medications he
 18 had been taking and come back in six weeks.

19 Q Did he, in fact, do that?

20 A Yes. So he came back on December 10, 2014 --

21 Q Doctor, let me stop you, I apologize.
 22 Clinically, what did his symptoms suggest to you
 23 as an orthopedic surgeon, especially in the fields that
 24 you are talking about, the spine and head and neck and
 25 the spinal cord, clinically, what did he show symptoms

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 2 of?

3 A So, clinically, he had radiculopathy. I
 4 basically diagnosed him with cervical and lumbar
 5 injuries.

6 He had evidence of radiculopathy on examination
 7 which means that the nerve roots from the spine, there
 8 was suggestion that there was something wrong with them.

9 We talked about the fact that his reflexes had
 10 changed, that he had some weakness and that there were
 11 some numbness on examination and by history, so those all
 12 were very strongly suggestive of the fact that he had a
 13 pinched nerve or some type of insult to the nerves and we
 14 call that a radiculopathy.

15 Q So did you tell him to come back in six weeks?

16 A Yes, so he came back on December 10, 2014.

17 Q What type of exam did you do, what were his
 18 complaints and what did you deem significant at that
 19 point in time?

20 A Well, he had -- he really didn't have
 21 significant change in his symptoms, despite the fact that
 22 we had been following him for his conservative
 23 management, so we examined him and we really didn't find
 24 much change in his examination during that visit.

2 Q What was the date of that --

3 A -- during that visit --

4 Q What was the date of the CT scan that you
 5 reviewed?

6 A 11/13/14.

7 Q Was it of the cervical spine or the lumbar spine
 8 or both?

9 A It's the cervical spine.

10 Q And you reviewed that CT scan yourself?

11 A Yes.

12 Q What did that show, doctor?

13 A It showed multi-level disc herniations in his
 14 neck. It showed central disc herniations at C-3-4, 4-5
 15 and C-5-6, broad based disc herniation.

16 Q Now, what does that mean in English, what does
 17 that affect in terms of parts of your body, where would
 18 that impact, for example, the C-5-6 level, who would that
 19 manifest itself in terms of pain or discomfort to a
 20 person?

21 A Do you have a spine model that I could show that
 22 would help me explain that?

23 Q I have one here.

24 MR. BOTTARI: We will mark this for
 25 demonstrative purposes.

24

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 2 THE COURT: For identification.

3 A It's quite small, I would like to show you, if I
 4 can approach.

5 So it's confusing because normally, the spine has
 6 muscles and tissue around it, but also normally, you have
 7 a rib cage, so when you see skeletons, normally, you
 8 would see a rib cage coming around in the thoracic zone
 9 of the spine and you would have, of course, legs and what
 10 not.

11 This is the pelvis down at the bottom of your
 12 spine, so the cervical spine is in the neck and its
 13 anatomy is different than the other parts of the spine,
 14 so the thoracic spine is different from the cervical
 15 spine which is in the neck.

16 This is the base of the skull and then the lumbar
 17 spine is everything below the ribs above the tailbone.

18 What you will notice is that there is some
 19 mobility of the spine, everybody knows that you can bend
 20 your back and twist and bend your neck. Well, the reason
 21 you can do that is because of the joints that are between
 22 each of these bones.

23 These bones are kind of like rings and the reason
 24 that they were made that way by God is because there is a

2 spinal cord goes through so it comes from your skull
 3 where your brain ends, it goes into the canal here and
 4 extends down through this canal into the body.
 5 It ends around the middle of the lumbar spine and
 6 these nerve roots are exiting the spinal cord throughout
 7 the whole way.
 8 You could see sort of a view of the spinal cord
 9 right here, but the spinal cord just is sort of -- it's
 10 almost like a part of the brain and once the nerve roots
 11 exit the spine, they are called nerve roots, and that's
 12 actually considered a part of the peripheral nervous
 13 system.
 14 These nerves are what control your whole body.
 15 They control your muscles. They control your reflexes,
 16 the way you reflex. If you stepped on a nail and your
 17 foot jumps up, that's what a reflex is.
 18 It also controls sensation. It also controls
 19 your belly, some of the different things that are
 20 controlled in your -- for example, like your heart, what
 21 not.
 22 So if you're scared, your brain is telling the
 23 heart, you better get ready to run, it makes the heart
 24 beat faster, right, so that's the nerve roots.
 25 These discs that are in the front are joints that

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 2 are slightly different than the joints you might be used
 3 to like your knee where it really has a lot of mobility
 4 and they slide.
 5 Instead, these are discs that are almost like the
 6 heel of a shoe where it's a gel insole type heel. The
 7 Jello that's in the middle of those discs is called the
 8 nucleus and it has like a ring around it, so it's almost
 9 made like a shock absorber.
 10 That ring is really good for shock absorption,
 11 but it's not great in other ways, like, so, for example,
 12 if you twisted really hard or you jerk it in a certain
 13 way, sideways, it's not so great for that.
 14 Just like you would imagine for a shoe, the heel
 15 isn't made for resisting side to side motion, right, the
 16 sole of the shoe does, but the cushioning side doesn't
 17 really do that, right.
 18 There are joints in the back of the spine that do
 19 that that help kind of keep the spine from shifting
 20 around, so there are some joints in the back.
 21 Then the joint in the front is relatively
 22 vulnerable when it gets twisted or jolted in some way,
 23 like sideways and what can happen is, if it gets damaged
 24 like that, just like a balloon, if you blow up a balloon

2 MR. McGUINNESS: Can we try to get this into
 3 a question and answer --
 4 THE COURT: Overruled.
 5 Q You may continue.
 6 A The outer rim of this disc, that outer rim can
 7 get damaged just like a balloon does and when it pushes
 8 out, it's called a herniation.
 9 A herniation is something where basically that
 10 disc isn't supposed to be in that area and just like any
 11 joint, if you damage a joint and you have that
 12 herniation, it's going to hurt in that area, right, you
 13 would imagine, it's like anything, any other type of
 14 injury to the body is going to hurt at that site.
 15 But beyond that, if that herniation now is
 16 pressing on a nerve root, you can imagine it can stop the
 17 function of that nerve root, but it can also hurt, right,
 18 so if the nerve root gets irritated and inflamed, it will
 19 hurt.
 20 What we found is that even small disc herniations
 21 can cause that pain and the reason is --
 22 MR. McGUINNESS: Your Honor, I have got to
 23 --
 24 THE COURT: Ask some more questions.
 25 Q Doctor, can a nerve root, if it gets irritated,

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1 GERLING - DIRECT
 2 cause pain?
 3 MR. McGUINNESS: Can we have him take the
 4 stand?
 5 THE COURT: If he's through with the --
 6 THE WITNESS: I'm not through with the --
 7 THE COURT: Okay.
 8 MR. BOTTARI: He's not through with the
 9 model.
 10 Q Just use the model, let us know when you are
 11 finished with the model.
 12 MR. McGUINNESS: Your Honor, side bar.
 13 That's not the issue.
 14 THE COURT: Come on up.
 15 (Discussion held at side bar.)
 16 BY MR. BOTTARI:
 17 Q Doctor, specifically, let me ask you this
 18 question before you continue.
 19 Specifically, a nerve root irritation at L-4-5 or
 20 L-5-1 level, where would that manifest itself in terms of
 21 pain and what would a patient typically feel, can you
 22 answer that question? You can use the model.
 23 A So it really depends on where the disc herniation
 24 is and the type of disc herniation.

2 nerve directly and sometimes, when it's smaller, it's
3 just leaking the internal enzymes that are in it.
4 That's why we think that smaller disc herniations
5 can cause just as much pain as the big ones.
6 If those enzymes leak out where the nerve is,
7 they can start almost eating up or damaging the nerve and
8 the nerve is on fire, almost. It will shoot pain in the
9 distribution of where that nerve is.
10 That's why people have very characteristic zones
11 of where they would have numbness, very characteristic
12 zones of where they have pain and very characteristic
13 muscle weakness or reflex changes.
14 THE COURT: Tell us about L-4, L-5.
15 Q At L-4-5, where do you normally see pain, does it
16 radiate down the leg, tell us?
17 A So it would radiate down the leg the way it did
18 with Mr. Carter.
19 MR. McGUINNESS: Objection.
20 A The side of the leg --
21 THE COURT: Overruled.
22 A -- where it would go down the side of the leg to
23 the front of the shin, to the dorsal foot. That's L-5 --
24 Q What is that?
25 A The top of the foot.

30

1 GERLING - DIRECT
2 Q How about L5-S1, what is the traditional
3 radiation pattern of injury with regard to that irritated
4 nerve at that level?
5 A That would be the lower nerve and that would go
6 down the buttocks area down the back of the leg, more in
7 the calf area and to the side of the calf and to more of
8 the sole of the foot.
9 Q If you have a broad based herniation, could that
10 go into one or both legs?
11 A Yes, so it can go into both, exactly. It depends
12 on how broad based it is because sometimes, the
13 herniation such as in this case actually extends from the
14 midline, so the middle of the back, the canal there, out
15 to where the hole is.
16 Sometimes, it can capture more than one nerve
17 root or irritate more than one nerve root, more than one
18 nerve root on the same side or it can also extend to the
19 other side as well.
20 Q Have you finished using the model for now?
21 A Yes.
22 Q Thank you.
23 So you have now seen updated CT scans for
24 Mr. Carter, correct?

2 Q Did you come to any sort of a determination as a
3 result of the clinical picture and the updated CT scans
4 that you ordered?
5 A Yes, that he had a cervical disc herniation with
6 radiculopathy.
7 Q At what level?
8 A At the C-3-4, 4-5 and 5-6 levels, so at three of
9 those levels.
10 Q So did you make any determination at that time
11 with Mr. Carter as to whether he should continue what's
12 called conservative treatment or undergo surgery, what
13 did you discuss?
14 A So at that point, we discussed removing the
15 pressure off of the nerve with a cervical surgery,
16 basically, where we would remove the disc and put in an
17 implant, a fill-in.
18 Q At what level?
19 A Well, we discussed doing it at three levels that
20 were injured, but that's with the understanding that when
21 I'm actually in there and I'm looking at them, that I
22 would make a determination of which one I thought was the
23 most significant or the most important to remove.
24 Q Is that, in fact, what happened?
25 A Yes.

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1 GERLING - DIRECT
2 Q So you actually planned to do surgery, correct?
3 A Yes.
4 Q And on at least two or three levels and what did
5 you actually do when you got into Mr. Carter's neck?
6 A So on February 23, 2015, he was brought to the
7 operating room.
8 Q Where?
9 A At Lutheran Medical Center.
10 Q Just so you know, we put the Lutheran records in
11 evidence, from the surgeries, the two bottom parts, the
12 pile there.
13 Can you tell us what the name of the surgery is
14 and what your pre-op diagnosis was, what your post-op
15 diagnosis was, what you did and then I'm going to ask you
16 to step down because we have some blow-ups that I would
17 like you to comment on.
18 A Sure, so anterior cervical discectomy and fusion,
19 so ACDF, sounds like a lot, but if you know what each
20 part means, it's kind of obvious.
21 Anterior means that we're going through the front
22 of the neck. Cervical means it's the neck part.
23 Discectomy means we are removing the disc, the bad disc
24 and fusion means that we are actually making the bone
25 --

2 puts in a cavity and puts in a filling, same idea.
3 Q What level or levels did you determine needed
4 this type of procedure once you got in and saw his neck?
5 A I determined that the C-5-6, that's the one disc
6 at the bottom, that that was the most severe and that we
7 would treat that at that time.
8 Q And that's what you did?
9 A Yes.
10 MR. BOTTARI: With the Court's permission, I
11 would like to have the doctor step down and review
12 some blow-ups and explain to the jury in more detail
13 what he did using several of them as demonstrative at
14 this time.
15 I do need an easel, if we have one. I think
16 it's over there in the corner.
17 Let the record reflect that the doctor is
18 using Plaintiff's Exhibit 9 for identification.
19 Q Go ahead, doctor.
20 A So this is, believe it or not, this is actually a
21 fairly common procedure.
22 The neck, if you looked at a person just standing
23 in front of you, these structures are relatively deep
24 within the neck in the center of the neck, underneath
25 what you call the apple core or the front of your throat.

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1 GERLING - DIRECT
2 So once the patient is positioned and in this
3 case, Mr. Carter, once he was positioned, he would have
4 been cleaned up and prepped for the surgery.
5 We would make a cut on the front of the neck
6 right here and through that cut, we would actually make
7 an approach to the spine in order to safely be able to
8 operate on the spine, so we remove some of the structure
9 to the side.
10 We would pass the throat where you swallow and
11 where you breathe through, so we call that the trachea
12 and the esophagus and we would sweep that to one side.
13 On the other side, we would have some muscles and
14 the carotid sheath that has the carotid and the jugular
15 vein in it.
16 Once those structures are safely swept to the
17 side and we are actually on the spine itself, that's when
18 we can directly with our eye see the spine.
19 We use magnified loop glasses, we call them, just
20 like you may have seen in the dentist office, I don't
21 know, but we use those in order to actually be able to
22 see the structures that are present.
23 Once I did that, I determined that the C-5-6
24 level and the way we -- why we call it C-5-6, each bone

2 on the number, so the C-5-6 disc is the disc that's
3 between the C-5 and C-6 bones.
4 When I decided to remove that disc, we would then
5 literally cut it out with a knife and with different
6 tools to try and remove it and we would use literally a
7 drill to square off the end plates.
8 At that point, we can actually remove the
9 posterior disc herniation and take the pressure off the
10 nerve.
11 When I did the procedure I actually did find a
12 disc herniation in there with my eyes. I actually
13 removed this disc herniation.
14 Then once I am satisfied that I have removed all
15 the pressure and all of the issues that are in the spine,
16 that's when we would actually go through the process of
17 stabilizing and making the disc now sits in a good
18 position, because you don't want to just remove it and
19 then let it flop around, because it's not stable.
20 So at that point, once we square things off, I
21 would place a spacer which is like a cage, it's made of
22 a -- in this case, I believe it was made with PEEK, let
23 me just see, excuse me one second.
24 So there is a choice of what type of cage you use
25 and in this case, it's a type of plastic that's very

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1 GERLING - DIRECT
2 similar to bone in terms of its flexibility and it's
3 inert, so the body doesn't see it, it doesn't know it's
4 there, the immune system doesn't attack it, so it can
5 just sit there forever.
6 What it does, it sort of holds the bone in the
7 right position, so they can't collapse and then so the
8 bone could heal in that position. That's called a cage.
9 So after placing that nicely and having it in a
10 nice clean fashion, sitting in a really stable position,
11 then I would put on a metal plate on the front that holds
12 the bone perfectly still, almost like a cast or an
13 internal splint, so that when he wakes up and starts
14 moving his head, the bone isn't rotating and moving.
15 The more stable it is, the more likely it's going
16 to heal in that position and heal well, just like a cast
17 on the arm. If you didn't put on a cast, well, it might
18 heal, but it might not heal in the right way or it might
19 not heal at all, so the point of doing the plate is to
20 really stabilize it and to help it heal.
21 The next -- so then, once the procedure is over
22 and we sort of get control -- we have control of the
23 fluids, the bleeding or other issues that might be
24 present, we inspect the area and make sure everything is

2 This is sort of what it looks like if you're
3 looking from the front, but in the bottom left image, you
4 could see what it would look like if you sort of
5 transected it, looked at it from the side.

6 There is a cage in between where the disc used to
7 be. The posterior part is decompressed. The anterior
8 plate with the screws, they are stabilizing the plates in
9 the bone.

10 These are the actual x-rays from May 8, 2015, of
11 Mr. Carter, that showed the actual implant in between
12 them. That's the little markers that are there in the
13 disc space and then the actual plate that's sitting on
14 the front.

15 You could see from the side, because it's metal,
16 it has that mineralization, that's why you can see it on
17 the x-ray. You could also see that discs that don't have
18 implants in them, you can't see them. They are clear.

19 Q Now, doctor, does this implanting of the PEEK
20 spacer and the plate and screws, does that affect the
21 range of motion of Mr. Carter's neck?

22 A Yes, well, there will not be motion at that level
23 again unless it doesn't heal. In this case, it did heal.

24 If it didn't heal, then there would be ongoing
25 -- there would be motion at that level, but because it

2 That plus maybe some bleeding or what not can
3 accumulate in the wound and it can be detrimental. It
4 can start pressing on the airway. It can start pressing
5 on the esophagus so you can't swallow very well and it
6 can start leaking out of the wound.

7 The concern is that it could be pus, like, in
8 fact, infection or it could get infected because you have
9 this fluid and like bacteria would love to live in it.

10 So when he came back to my office at his two-week
11 visit, it was obvious that he had quite a bit of fluid in
12 because of the fullness of his neck and because some
13 leakage of fluid was noted, so that's why we had to send
14 him to the hospital and have him evaluated.

15 Imaging was done, including a CT scan, that
16 showed that there was a large accumulation of fluid in
17 his neck and also, unfortunately, that we needed to take
18 it out.

19 The labs that were performed showed that it
20 wasn't infected, luckily, but if we didn't do anything
21 about it, it likely would have become infected. It
22 certainly would have been very difficult with him to live
23 with that much fluid pressing on his esophagus.

24 That's not a common complication. I would say
25 that it happens in one in three hundred or four hundred

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2 healed, we accomplished our objectives here, it healed.
3 There will never be motion again at that joint.

4 Q That's permanent?

5 A It is permanent, yes.

6 Q That's a restriction of motion he has to live
7 with forever?

8 A Yes.

9 Q Let's briefly talk about the complication that
10 happened with regard to the seroma.

11 Can you tell us what that is?

12 A So I was saying before that before you close the
13 wound, you have to sort of inspect the area and try to
14 make sure that there is no bleeding.

15 The body has natural secretions, just like when
16 you skin your knee, when you are a kid and you could see
17 that there was sort of like a sweating of the tissue on
18 the exposed portion, that's tissue, that's serous liquid
19 that's actually in all of your tissues right now.

20 The reason it doesn't leak out all over the place
21 is because you have an outer skin that sort of seals it.

22 Sometimes, when we do a surgery, for whatever
23 reason, the body, it secretes that seroma, that serous
24 fluid into the area and it creates an accumulation of

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1 GERLING - DIRECT

2 people, maybe one in five hundred people and it can be
3 just -- because you start over again, it's almost like
4 you had your surgery, recovered for two weeks and had the
5 surgery again.

6 I mean, I would say that he was definitely
7 predisposed to that because of his illnesses, all the
8 different issues he had including the diabetes.

9 Q We have now discussed his first two neck
10 surgeries, correct?

11 A Yes.

12 Q Just resume your chair for a few minutes, we will
13 talk about post-op, et cetera, and what you found with
14 regard to his back and then I will ask you again to use
15 the blow-ups to talk about the back surgeries that you
16 did, okay?

17 A Yes.

18 Q We are now past the seroma, that's sometime in
19 March of 2015, I believe, doctor?

20 A Yes.

21 Q Did Mr. Carter then come back to you after the
22 -- we will call it the second neck procedure, and what
23 were his complaints, do you recall?

24 A Well, throughout the perioperative, the

2 pretty common in people who have a surgery like this, so
3 swallowing issues, soreness on the back of the neck,
4 pain.

5 He also complained about his speech and he had
6 been seen by speech and swallow which is a therapy that
7 you can get which helps you sort of regain your
8 swallowing, it's like rehabilitation for the throat.

9 He also complained of the pain radiating into his
10 trapezial area, so in March, those are the issues that we
11 focused on until his follow-up visit on March 25, 2015.

12 Q What happened at that time?

13 A So up until that point, we continued to focus on
14 the neck and rule out the fact that he had had an
15 infection, so we reviewing his labs, making sure that the
16 tissues that had been taken out during that wash-out
17 procedure were fine. He returned again in May of 2015.

18 Q What were his complaints and what areas did you
19 focus on at that point in time?

20 A So he continued to have the neck discomfort and
21 numbness, but we also discussed his back pain at that
22 point, so we sort of started to take a look at his bigger
23 picture again.

24 He continued to have back pain that was radiating
25 into both legs in the L-5 and S-1 dermatomes with

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2 paresthesia which is sort of tingling, numbness type
3 sensations.

4 He was only able to walk one to two blocks
5 because of the pain. He had difficulties with his daily
6 activities because of it.

7 He was taking Percocet, still, which is a pretty
8 strong narcotic pain pill and he was doing a home
9 exercise program, so, really, that, in addition to
10 bracing, he was really doing all the things that we can
11 do to try and abate the symptoms or try and improve his
12 situation.

13 His examination did show now, a straight leg
14 raise which is something that is -- which is a test that
15 we do where we lift somebody's leg and if you have a
16 pinched nerve in your back, it will actually cause the
17 pain to radiate into the leg.

18 Q Just so we are clear, straight leg raising test
19 is usually performed one of two ways, correct, you are
20 lying down on the table and you lift someone's leg up?

21 A Yes.

22 Q And 90 degrees would be normal, correct, 80 to 90
23 degrees?

24 A Yes, normally, you can raise your leg 80 to 90

2 have a tethered nerve root, if your nerves are being
3 pinched in your back, when you raise the leg beyond 60 or
4 70 degrees, the tethered nerve root starts -- the
5 symptoms start getting worse.

6 Q And you found -- you said he had a positive
7 straight leg raising test?

8 A Yes.

9 Q That would indicate what in terms of where the
10 problem is in general?

11 A It indicated that the nerve was being pinched in
12 his back. Before the days of MRI, that was one of the
13 principal findings that we used to determine whether to
14 operate on somebody.

15 Q What level would that be at, the pinched nerve
16 root, essentially?

17 A Well, in this case, it would have been at the
18 L-4-5 and/or the L5-S1 discs, so both places can cause
19 that type of symptom.

20 So at that point, we ordered a new CT scan of his
21 low back. We saw him again in May -- May 14, 2015,
22 really, with no substantial change in his symptoms, and
23 at that point, we discussed the possibility of doing
24 surgery on his lower back.

25 Q Just so we can put this into perspective, he had

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2 clinical symptoms of problems in his low back, correct?

3 A Yes.

4 Q He had a positive straight leg raising test?

5 A Yes.

6 Q And the CT scan showed what, you reviewed the CT
7 scan?

8 A Well, in addition to that, he also had neurologic
9 problems that we had already reviewed earlier that really
10 hadn't changed.

11 He still had had the weakness in the L-5 muscles
12 and he still had the lost reflex down below in his lower
13 leg, all of which pointed to the L5-S1 nerve roots.

14 So we reviewed the CT scan and it showed an L-4-5
15 disc herniation and that's when we brought him to the
16 operating room on June 8, 2015.

17 Q What type of procedure did you perform on
18 Mr. Carter at that point in time?

19 A So we went into the spine and removed the disc
20 that was damaged. We identified it.

21 Do you have anything that could help me
22 demonstrate that?

23 Q Absolutely. In fact, we have a plate that shows
24 that.

2 So when somebody has a disc that's damaged in the
3 lower back, similar to what we saw on the model which I'm
4 going to bring over as well, so when the disc is
5 herniated, but it's inside the canal, the goal is to go
6 into the canal, into the area where the disc is and
7 actually remove the disc and take it off the nerves.

8 Sometimes, as in this case, the nerve is being
9 pinched in a broad based disc herniation so that the disc
10 herniation is not just a little bump like this, but
11 actually, it extends around the disc and out the hole
12 where the nerve is.

13 So the goal is to go in and try and resect and
14 remove bone and disc to make space for the nerve and that
15 was the goal of the procedure, was to go in and make that
16 space.

17 So after cleaning up his back, this is looking at
18 him from behind, this is just a cartoon, of course, but
19 the exposure is cut whereby we would go down and pull the
20 muscles to the side and expose the spine.

21 These are the joints in the back of the spine
22 that I was telling you about earlier, that's called the
23 facet joint and then the disc would have been deep inside
24 the canal.

25 In order to take out enough of the disc to make

2 looks like this, and actually, lock the bones together.

3 So we put a rod between them, this is made out of
4 titanium which is an inert metal as well so you don't
5 have an immune reaction to it.

6 After we removed the bone and put in these rods
7 and screws, we would put in bone grafting material in the
8 back as well and this is ultimately what it would look
9 like at the end of the procedure. Let's see what else we
10 have here.

11 Q The two plates that you just showed us are
12 Plaintiff's Exhibits 12 and 13 for identification.

13 A Yes. Then in this last model, you could see the
14 sort of finished product.

15 That is similar to what his x-ray looked like
16 where the screws are actually extending into the bone and
17 then you could see the inner body spacer right here.

18 This is what it would like from the side where
19 you removed the disc, placed in sort of like a
20 stabilizing cage and bone graft.

21 Then here, you have the screws with the rod
22 connecting them from the side, so those screws extend
23 from the back of the spine to the front of the spine.
24 They are very strong so that he could get up and move
25 around without the bone shifting.

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1 GERLING - DIRECT

2 space for the nerves, enough of this facet joint had to
3 be removed whereby I felt that his back pain would get
4 worse and it would be unstable if I didn't actually
5 stabilize it, so that's the reason why after we took out
6 the bad disc with this picture right here, we elected to
7 actually put in screws and stabilize the bone.

8 Q At what level did you do that?

9 A At the L-4-5 level.

10 Q Using yourself as a model, could you just point
11 to approximately where that is?

12 A That would be in the lower back, just above the
13 buttocks, so right -- if this is his pelvis, right in
14 the lower back, in this area.

15 So after -- we could see here, it's pretty
16 obvious, once you have taken out enough of the bone, that
17 that bone would be sort of flapping around if you didn't
18 do something about it.

19 What we did was we actually removed the balance
20 of the disc and put in this cage just like the cage we
21 put in the neck and actually stabilized the front of the
22 spine with that cage and we put in bone graft.

23 Then afterwards, we put in screws that are about
24 the size of your small finger and these screws go from

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2 Now, this x-ray was actually taken not
3 immediately postoperative, but actually later and at this
4 point, this x-ray was taken because he was having a lot
5 of postoperative pain.

6 Q Can you give us a date, doctor?

7 A That was on October 19, 2017, and if you look
8 carefully at it, the cage is supposed to be in between
9 the bones.

10 If you look at this cage here, these are the
11 markers of the cage. The cage has gone from where it's
12 supposed to be and it's pushed back out into the back of
13 the spine and, in fact, the space that we had made that
14 should be about this big has collapsed.

15 So that's what I was saying before, if you don't
16 put something in there, the bones will collapse and in
17 this case, for whatever reason and probably because of
18 the combination of his medical issues, the bone didn't
19 heal together when we did this procedure.

20 If you don't heal over the course of time, there
21 is going to be more and more motion and if there's enough
22 motion, eventually, things fail and you can imagine how
23 painful that is, but these screws inside his spine are
24 wobbling around and compressing the bone around them.

2 trying to stabilize things, and because it collapses, you
 3 have implications because the nerve roots that are
 4 exiting would get pinched and indeed, the nerve root
 5 passes right by here where this cage is.
 6 So one would expect, if you put a cage into this
 7 area here, that's like putting a huge disc herniation or
 8 a thumb almost into the area where the nerve root is
 9 exiting, so that, you could see, right here, the cage is
 10 pushed out to the side and pushed backwards.
 11 Q So those x-rays are taken over two years after
 12 the spinal surgery?
 13 A After the initial surgery.
 14 Q Yes, okay. You did a second surgery on his back;
 15 am I correct?
 16 A Right, that's correct.
 17 Q If you can find those in a second.
 18 A So initially, this x-ray that we were just
 19 looking at was a little bit delayed because in the
 20 interim, between the first surgery and that x-ray we are
 21 just looking at, we had done a CT scan that showed that
 22 the bone wasn't healing.
 23 So the goal had been to have these screws in the
 24 bone stable and that the bone would heal together, but
 25 because it wasn't healing, I took him back to the

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 2 operating room and we diagnosed him with what's called a
 3 pseudoarthrosis which means that the bone hadn't healed.
 4 So after it's about a year, if the bone hasn't
 5 healed and you start having that pain and the back is not
 6 feeling better, that's when we order a CT scan and we
 7 determine whether or not we have to go back in and try to
 8 help it heal.
 9 So he had a second surgery and that second
 10 surgery, I believe it was September 26 --
 11 Q Yes, 2016, it's on the top of the board?
 12 A I just wanted to confirm that's correct, but so
 13 this second surgery, the point of it was to try and help
 14 the bone heal.
 15 We went in and we removed the screws. We went in
 16 and exposed it. We did a much more aggressive exposure
 17 with much more bone graft, new screws to try and
 18 stabilize it and try and basically force the bone to
 19 heal.
 20 We actually diagnosed the fact that -- we
 21 actually diagnosed the fact that the bone had not healed
 22 during that procedure, so the post-op diagnosis was that
 23 he had a pseudoarthrosis.
 24 So where was I? So after we did a more

2 at that point, again, the hope is that it's going to
 3 heal.
 4 This was in September of 2016, when he continued
 5 to have pain and we ordered a post-op x-ray, that was the
 6 x-ray that we were looking at before, so this x-ray was
 7 done a little over a year after this revision x-ray, this
 8 revision surgery.
 9 This x-ray shows the way the spine would be now
 10 with the screws in the bone still, but the bone -- the
 11 interbody spacer has pushed backward and it's pressing on
 12 the nerve root.
 13 So this is an x-ray that was done a little over a
 14 year later and at that point, we would expect that it
 15 would have healed. This is unusual for somebody to have
 16 the bone not heal after two procedures on it.
 17 Q Doctor, given the two procedures that you did on
 18 his back and the fact that the spacer has become
 19 dislodged and the screws aren't where they were when you
 20 put them, they are not in the same place as when you did
 21 the surgery, does that cause him pain at this point in
 22 time?
 23 A Yes.
 24 Q Is it your opinion that he needs an additional
 25 surgery on his back to correct --

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 2 MR. McGUINNESS: Objection, leading.
 3 Q What clinically does that mean in the future for
 4 Mr. Carter with regard to his back?
 5 A Well, it's an absolute indication for revision
 6 surgery, so he's going to require somebody to take that
 7 spacer out and somehow force the bone to heal and we
 8 discussed that during his visit on February 1, 2017.
 9 Q Let me ask you this, approximately, what is the
 10 cost of the two surgeries you have done, well, actually
 11 -- the neck surgery and the seroma surgery, do you know
 12 what the cost was, approximately, of those two?
 13 MR. McGUINNESS: I'm going to object as to
 14 whether or not it's compliant with the regulations
 15 that apply to the surgeries. Object to the form of
 16 the question as posed.
 17 THE COURT: Rephrase it.
 18 Q What is the usual and customary charge for a
 19 surgeon such as yourself --
 20 MR. McGUINNESS: There is a regulatory price
 21 that they are allowed to charge under the
 22 regulations. Ask if he establishes that he knows
 23 that and that's what he is entitled to.
 24 THE COURT: I will sustain that.

2 you are allowed to charge for neck and back surgeries?
 3 **A** Yes, well, there is a usual and customary rates
 4 fees schedule.
 5 **MR. McGUINNESS:** Your Honor, the regulatory
 6 charge is what --
 7 **THE COURT:** Excuse me, if you want a side
 8 bar, ask for one.
 9 **MR. McGUINNESS:** Yes.
 10 (Discussion held at side bar.)
 11 **BY MR. BOTTARI:**
 12 **Q** Dr. Gerling, you performed a neck surgery in
 13 early 2015 and a revision with regard to the seroma for
 14 the neck in March of 2015, correct?
 15 **A** Yes.
 16 **Q** You also performed a surgery on the L-4-5 or
 17 L5-S1 level in 2015 and then an additional back surgery
 18 in September of 2016, correct?
 19 **A** Correct.
 20 **Q** Do you know how much Mr. Carter has paid you for
 21 all of those operations, approximately?
 22 **A** No, I don't.
 23 **Q** Can you estimate?
 24 **MR. McGUINNESS:** Objection.
 25 **THE COURT:** If he doesn't know, he doesn't

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1 **GERLING - DIRECT**
 2 know. You can always recall the Plaintiff.
 3 **Q** Is there a way you can check with your billing
 4 department at any point in time in the next few minutes,
 5 if we took a short break? Let me just --
 6 **A** That would be really easy for me to do.
 7 **Q** Okay.
 8 Now, when you --
 9 **A** If you give me a second, I could just send a text
 10 to somebody.
 11 **Q** Can we do that, just send a text or can we do it
 12 on a break?
 13 **THE COURT:** We will take a five-minute break.
 14 Don't discuss the case. Short break.
 15 (Jury exits courtroom.)
 16 (Recess taken.)
 17 **THE COURT:** We are sustaining it to the
 18 extent it should be usual and customary, it has to be
 19 either the no-fault rate or the actual rate.
 20 **MR. McGUINNESS:** Yes, your Honor. We are
 21 just objecting to him, just as to personal knowledge,
 22 him going back to parts of the chart that he didn't
 23 bring with him electronically. Thank you.
 24 **THE COURT:** Before we bring the jury back in,

2 you are able to establish through this witness that
 3 the person he is talking to is one of his employees
 4 who he deals with in the regular course of business
 5 and they keep those records and, effectively, you can
 6 establish that it is coming directly from a business
 7 record, you can do that.
 8 **MR. BOTTARI:** Yes.
 9 **THE COURT:** If you can't --
 10 **MR. BOTTARI:** Then I will move on.
 11 **THE COURT:** You will move on. You can always
 12 recall the Plaintiff as to what he actually spent.
 13 **MR. BOTTARI:** Understood, your Honor.
 14 **THE COURT:** I am given to understand that he
 15 didn't receive no-fault.
 16 If he did, obviously, you can either have an
 17 agreement or a hearing in the nature of a collateral
 18 source after the verdict, so at this point, no one is
 19 unduly prejudiced.
 20 **MR. McGUINNESS:** I'm okay with having that
 21 kind of hearing. I'm just not sure that that is
 22 something in the first instance and hearsay, actually
 23 hearsay on hearsay.
 24 **THE COURT:** We will see how little hearsay
 25 there is. If it's too much, we will keep it out.

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1 **GERLING - DIRECT**
 2 **MR. McGUINNESS:** I understand.
 3 **MR. BOTTARI:** My understanding is that
 4 Mr. Carter has told me that he had to pay Dr. Gerling
 5 out of his pocket.
 6 **THE COURT:** I'm going to allow you to recall
 7 him, if you wish.
 8 **MR. BOTTARI:** Okay, we don't need to do that
 9 right now.
 10 **THE COURT:** In terms of where to go with this
 11 witness.
 12 **MR. BOTTARI:** Understood.
 13 **THE COURT:** I don't want to confuse the jury.
 14 **MR. BOTTARI:** Understood.
 15 **THE COURT:** Let's bring them in.
 16 **MR. BOTTARI:** He is awaiting a text back. We
 17 will do other questions.
 18 **THE COURT:** It's probably best to move on.
 19 **MR. BOTTARI:** He can cross him and I can
 20 reserve the right to ask him that question.
 21 (Jury enters courtroom.)
 22 **THE COURT:** Be seated, everybody.
 23 Mr. Bottari, you may continue.
 24 **BY MR. BOTTARI:**

2 you to do what's called a narrative report with regard to
3 this case?

4 A I believe so.

5 Q Just quickly, I'm going to ask you to refer to
6 certain sections of that narrative report so that we can
7 -- do you have a copy of it in front of you?

8 A No. Actually, I have it on my phone. I will
9 refer to it. Okay.

10 Q On page 2, when you originally tested out
11 Mr. Carter with regard to his range of motion of the
12 cervical spine, did you use what's called a goniometer?

13 Doctor, I can give you a copy of it?

14 A On page 2?

15 Q Page 2.

16 A Yes, I did.

17 Q First, tell us what a goniometer is and then tell
18 us what the range of motion was you found and how that
19 differed from normal?

20 A Well, actually, that day, I did not quantify them
21 in my note, so I didn't actually write how much --

22 Q Well, let me just -- if I can, just to save
23 time, I will let you look at my --

24 A Yes, so it just -- I didn't actually quantify
25 the amounts. These are just the normal amounts, that the

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1 GERLING - DIRECT

2 -- so that's just the normal levels. I didn't actually
3 quantify the range of motion and then there as well.

4 Q So you said it was restricted, but you didn't
5 quantify it?

6 A Right.

7 Q Do you have an opinion within a reasonable degree
8 of medical certainty as to whether or not the two neck
9 surgeries you did, the two back surgeries that you did
10 and the back surgery that you are projecting that
11 Mr. Carter needs because of the loose screws in his back
12 are causally related to the accident of July 3, 2012?

13 MR. McGUINNESS: Objection.

14 THE COURT: Overruled.

15 Q You can answer.

16 A Yes, I believe they were.

17 Q What is the basis of your opinion, doctor?

18 A Well, he was asymptomatic prior to the accident.
19 He had clear injuries to the neck and back that
20 correlated with the injury itself.

21 He had consistent symptoms that ultimately were
22 diagnosed with herniations that ultimately required the
23 surgical treatment because they didn't get better with
24 conservative management.

2 Mr. Carter, did you, in fact, see and remove herniated
3 disc material?

4 A In the back and the neck.

5 Q Now, do you have an opinion within a reasonable
6 degree of medical certainty as to whether or not
7 Mr. Carter would need what's called adjacent level
8 surgery at any point in time in the future?

9 MR. McGUINNESS: Objection.

10 Q Can you tell us what that is?

11 THE COURT: Overruled.

12 A Yes, I do. So when you stiffen up a part of the
13 spine and parts of the adjacent levels now have to bear
14 the brunt of what that part normally would have borne,
15 so if you have a --

16 MR. McGUINNESS: Your Honor, could we specify
17 the level where he's going to need adjacent level
18 surgery?

19 THE COURT: If you can specify it, it applies
20 to the --

21 A Sure, I am happy to. So when you stiffen up a
22 level or if a level is stiffened up on its own through an
23 accident, then what can happen is the other levels have
24 more stress than they normally do.

25 Also, the fact that you had a surgery in that

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1 GERLING - DIRECT

2 area doesn't help either because blood flow and what not
3 might not be the same as it usually was before the
4 surgery.

5 But despite that, it's a common phenomenon for
6 people to develop problems at the level above and below
7 because not only were those discs subject to injury
8 during the initial insult, but now, they have more
9 intermittent and regular stresses on them than normal and
10 we call that adjacent segment disease because it's right
11 adjacent to where the surgery was.

12 In this case, he had a C-5-6 cervical fusion and
13 the C-4-5 and the C-6-7 are herniated and on the most
14 recent CT scan, it showed that he actually healed well at
15 the place where I operated in his neck, but the disc
16 above and the disc below are herniated and pressing on
17 the nerves, so it's very reasonable to expect that he
18 will require surgery to remove those specific discs and
19 he is manifesting the symptoms associated with them, so
20 it's expected that he will.

21 Q That's for the neck?

22 A Yes.

23 Q What about for the back, adjacent --

24 A We know for the lower back, he has an unstable

2 MR. McGUINNESS: Objection.
3 THE COURT: Overruled.
4 A -- an interbody spacer that's actually ejected
5 into this space where the nerve exits into the foramen so
6 that is an automatic -- if he went to an emergency room
7 today, they would immediately offer him that surgery.
8 There wouldn't be a question.
9 Q This adjacent level surgery you talked about for
10 the neck, about how much would that cost?
11 MR. McGUINNESS: Objection, your Honor.
12 Particular to the regulations.
13 THE COURT: I'm going to allow this.
14 A So the typical range is between \$80,000 and
15 \$100,000.
16 Q Does that include hospital costs?
17 A Yes, typically.
18 Q In fact, it's not just you in the operating room,
19 there is a whole team of people in there, correct?
20 A I have an assistant surgeon. There is an
21 anesthesiologist. There is somebody monitoring his
22 spinal cord. There are two technicians. There are
23 circulating nurses. There is a hospital facility. There
24 are implants. It's very expensive.
25 Q Will he need any further physical therapy or

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1 GERLING - DIRECT
2 medications in your opinion as a result of the injuries
3 that he sustained in the past going forward into the
4 future?
5 A Well, yes. He currently does. I mean, he is
6 taking a lot of medications. He is involved in pain
7 management, injections and therapy.
8 Q Do you have an opinion within a reasonable degree
9 of medical certainty as to whether or not Mr. Carter has
10 sustained a significant limitation of a use of a body
11 function or system as a result of the injury that he
12 sustained in July of 2012?
13 MR. McGUINNESS: Objection.
14 THE COURT: Overruled.
15 A Yes, of course. He has lost significant range of
16 motion in the cervical spine in addition to the
17 additional loss of motion from the adjacent levels that
18 are causing pain.
19 Then he also has lost significant use of his low
20 back where he now every time he moves, the screws are
21 shifting and the spacer is compressing the nerve root.
22 Q Is that within a reasonable degree of medical
23 certainty?
24 A Yes.

2 A By the fact that he has been demonstrated to have
3 adjacent segment disease, he has a fusion in his cervical
4 spine and in his lower back, he has loose implants that
5 are noted on CT scan that are seen on x-ray with the
6 interbody cage ejected posteriorly compressing the nerve
7 roots.
8 Q Do you have an opinion within a reasonable degree
9 of medical certainty whether Mr. Carter has sustained a
10 permanent consequential limitation of use of a body organ
11 or member as a result of the accident of July 3, 2012?
12 MR. McGUINNESS: Objection.
13 A Yes.
14 THE COURT: Overruled.
15 Q You can tell us.
16 A Well, he not only has lost the function --
17 functional range of motion of the neck and back, but he
18 also has substantial neurologic deficits in his lower
19 extremities and ongoing numbness in his arm.
20 Q Now, doctor, that's all within a reasonable
21 degree of medical certainty?
22 A Yes.
23 Q And one last time, the basis, just so we are
24 clear?
25 A The same as before, I mean, he has undergone

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1 GERLING - DIRECT
2 surgery. He has over a course of several years has been
3 demonstrated to have damage to the nerve roots and
4 neurologic deficits, not only in my own examinations, but
5 by the other doctors treating him.
6 Q Now, you mentioned some comorbidities that
7 Mr. Carter had, correct?
8 A Yes.
9 Q Diabetes, obesity, things of that nature,
10 correct?
11 A Yes, sir.
12 Q I want you to assume that Mr. Carter was on
13 Lyrica for several years prior to July 3, 2012, and that
14 he had indicated that he had pins and needles going down
15 his legs into his feet from time to time and that's why
16 he was treating with Lyrica, okay.
17 A Yes.
18 Q I want you to assume that he has testified that
19 his pain levels from the diabetic neuropathy, if you
20 will, was in the two to three range.
21 I want you to further assume that after the
22 accident in July of 2012, his pain levels were in the
23 seven, eight, nine, range, give or take the day, et
24 cetera.

2 of medical certainty as to whether some of the pain that
 3 Mr. Carter has, that he is experiencing today and in the
 4 future is as a result of the car accident as opposed
 5 diabetic neuropathy?
 6 MR. MCGUINNESS: Objection.
 7 THE COURT: Overruled.
 8 Q You can answer.
 9 A So there is some discomfort associated with
 10 diabetic neuropathy. Some people have more than others.
 11 Some people only have numbness, but in a radicular type
 12 pattern, it's very different.
 13 It's not diffuse like a stocking or a glove
 14 distribution, it's much more focused and it's much more
 15 severe and he has demonstrated through multiple years of
 16 observation to have substantially higher levels than
 17 would be expected with a neuropathy and also with more
 18 characteristic levels or distributions of a
 19 radiculopathy.
 20 So if one has -- if one has an accident and they
 21 have back pain and neck pain with a demonstrated disc
 22 herniation and it fits with the distribution of the pain
 23 in the extremity, I think that it is reasonable to assume
 24 that those symptoms are coming from the injury that was
 25 demonstrated in the neck and the back.

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1 GERLING - DIRECT
 2 MR. MCGUINNESS: Objection to what he
 3 assumes.
 4 Q Is that within a reasonable degree of medical
 5 certainty?
 6 A Yes.
 7 Q And the basis, this is the last question, the
 8 basis of your opinion?
 9 A Just what I said.
 10 MR. BOTTARI: Thank you, doctor. I have
 11 nothing further.
 12 MR. MCGUINNESS: Your Honor, could I have a
 13 few minutes with the doctor's chart?
 14 THE COURT: Sure, you can have a few minutes.
 15 We will take a five-minute break. Don't discuss the
 16 case.
 17 (Jury exits courtroom.)
 18 (Recess taken.)
 19 MR. MCGUINNESS: As part of the discovery,
 20 the first records that we were ever provided of
 21 Dr. Goswami's contact was a document entitled -- it
 22 was entitled, follow-up visit, which I think is a
 23 typo, but it's date of visit, 10/29/14.
 24 There are findings in it, in this record,

2 findings. There are comments about his medical
 3 history.
 4 The record he shows up with at trial is now a
 5 document called initial patient report.
 6 It is omitting information in what was
 7 previously disclosed.
 8 THE COURT: Well, so you have plenty to cross
 9 examine.
 10 MR. MCGUINNESS: No, your Honor, he is
 11 altering his reports.
 12 THE COURT: You can examine him on it.
 13 MR. MCGUINNESS: Your Honor, I'm going to
 14 move to strike the entirety of his testimony.
 15 THE COURT: Okay, that's denied. You could
 16 cross examine on it.
 17 MR. MCGUINNESS: All right, thank you.
 18 THE COURT: You can decide after your cross
 19 examination whether or not you want to renew the
 20 motion or not.
 21 Let's bring the doctor back in.
 22 (Jury enters courtroom.)
 23 THE COURT: Be seated, everybody. You may
 24 begin.
 25 MR. MCGUINNESS: Thank you.

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1 GERLING - CROSS
 2 CROSS EXAMINATION
 3 BY MR. MCGUINNESS:
 4 Q Doctor, if you kindly have a seat.
 5 I would like to kind of define some terms and
 6 concepts for the jury, if we could, sir?
 7 A I'm sorry, I couldn't hear what you were saying.
 8 Q Are you familiar with what's called an objective
 9 finding, are you?
 10 A Yes, I am.
 11 Q And by an objective finding, that's something
 12 that you can see, feel, touch, you can verify its
 13 existence with the use of your own senses, completely
 14 independent of what the patient tells you, fair enough?
 15 A Correct.
 16 Q And you contrast that with something called a
 17 subjective complaint or subjective finding and that's
 18 something where you are entirely relying on what the
 19 patient tells you as to whether or not it exists, fair
 20 enough?
 21 A Correct.
 22 Q So, for example, you can see a deformity, you can
 23 see redness, you can see bruising, you can take a
 24 temperature, those are all objective findings, correct?

2 Q And tests like an x-ray, CT scan, an MRI, those
3 are generally regarded as objective tests, correct?
4 A Correct.
5 Q That's something like when a patient tells you
6 that they feel numbness or they feel tingling, that's
7 subjective?
8 A Correct.
9 Q And if a patient says they feel pain, that, again
10 is purely subjective, you have no way of verifying what
11 the patient tells you, correct?
12 A Well, there are objective physical findings --
13 Q If they state that I feel pain or how much pain I
14 have, without performing some kind of objective test on
15 them, that statement in and of itself is objective?
16 A Right, if you don't have a physical exam.
17 Q In putting together a diagnosis, ultimately, what
18 you're trying to do is find an objective reason for the
19 subjective complaint so you have some -- you have --
20 you make a diagnosis, form a plan -- find an anatomic
21 basis for it and put together a plan to treat and take
22 care of the patient's problem, fair enough?
23 A Yes.
24 Q Now, you would agree that with range of motion,
25 in terms of if you compare range of motion to, let's say,

2 transverse processes?
3 A Yes.
4 Q These are what are called the spinous processes,
5 the bumps you see on a skinny person's back at the beach?
6 A Yes.
7 Q These structures here, these are the laminae?
8 A Yes.
9 Q And you got one on both sides, right?
10 A Correct.
11 Q Now, you use the word foramen or foraminal, below
12 the bottom of one vertebrae and above the top of another
13 vertebrae, they form a window and that's the foramen?
14 A Correct.
15 Q And you have got a foramen on both sides,
16 correct?
17 A Correct.
18 Q And you screw that foramen that the nerve roots
19 exit?
20 A Yes.
21 Q So as I like to put it, two halves of a clam
22 shell and the nerve root passes through? I'm trying to
23 keep it in lay terms, keep it simple.
24 A Yes.
25 Q Now, you mentioned in the lumbar spine about

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1 GERLING - CROSS
2 a number representative of the population at large, that
3 doesn't necessarily show what a specific patient has
4 actually lost; is that correct, I mean, you want to know
5 what the patient's baseline was, what their level of
6 function was before, correct?
7 A Well, there are expected ranges of motion.
8 Q Right, I understand that, but in a particular
9 patient's case, as to whether or not they have actually
10 lost something, you want to -- you would like to know
11 what their original baseline was, fair enough?
12 A Right, and nobody will.
13 Q Well, one of the things as an orthopedist, what
14 you would do is perhaps check the contralateral arm range
15 of motion, let's say you are dealing with one side --
16 A Assuming that there was no injury to the other
17 side, yes.
18 Q All right. I just want to go through kind of the
19 anatomy, a couple of things.
20 You have touched on the bulk of it, but in the
21 cervical spine, are there -- when you talk about the
22 vertebral bodies, that's the blocky part in the front,
23 correct?
24 A Yes.

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1 GERLING - CROSS
2 facet joints, there are other joints also up in the --
3 there are joints up here in the cervical spine, correct?
4 A Correct.
5 Q And those are these little joints between the
6 vertebrae sequences in this area, correct?
7 A Yes.
8 Q And they are actually joints, they have got
9 cartilage in them in their pristine state?
10 A Yes.
11 Q Those are what they call uncovertebral joints?
12 A No, they are facet joints.
13 Q You use the term facet all the way through?
14 A Yes, sir.
15 Q When someone is talking about a cervical spine
16 and they are referring to the uncinate joints, what are
17 they referring to, the same thing?
18 A No. They are actually at the edges of the disc
19 space where the disc space ends. The bone curves up and
20 it sort of forms an articulation with the level above.
21 Q Now, that would be on this side, the --
22 A Well, it's not really -- it's more just deep.
23 Q Okay.
24 A It's very difficult, 3-D anatomy that would

2 Q To actually see it, okay.
3 So the jury understands, in life, there are
4 ligaments, touch ligaments that surround all of these
5 vertebral bodies, that connect them from one to the
6 other?
7 A Yes.
8 Q There are large muscles, small muscles that are
9 connected by large and small tendons and they lay into
10 all these recesses, so this whole entire thing forms a
11 structure?
12 A Well, I'm not sure that I know what you mean by
13 that, but they are considered functional units with
14 basically the unit between two bones where -- yes, there
15 are muscles, there are ligaments.
16 Q It gives it strength, you have the joints, you
17 have the ligaments, you have got the muscles and they all
18 form, in effect, a structure, a supporting structure?
19 A Well, it's the --
20 Q A framework for the body?
21 A I guess so, it's the spine.
22 Q I'm trying to keep it in lay terms.
23 A Everything is a structure. Each thing you look
24 at and point at in the spine is a structure.
25 Q All right. Now, you mentioned that you treat

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1 GERLING - CROSS
2 both patients with degenerative conditions and traumatic
3 conditions --
4 A Yes.
5 Q -- on your direct. And you are familiar with a
6 condition called degenerative disc disease?
7 A Yes, sir.
8 Q And is there a progression that degenerative disc
9 disease goes through in terms of --
10 A Typically, yes.
11 Q Just for the benefit of the jury, typically, you
12 would find the discs, the intervertebral discs over time,
13 they desiccate, they can lose fluid content?
14 A Yes.
15 Q That's something that you can see on an MRI, if
16 you look at an MRI, on the T tube, you have a water view,
17 the central portion instead of being bright and light, it
18 becomes dark?
19 A Yes, and you could see it on a CT scan.
20 Q And when you -- once these discs begin to
21 desiccate and, again, I'm going to try to keep it in lay
22 terms, these discs, you got the nucleus, nucleus
23 pulposus, the inside, I've heard it described the
24 consistency of caramel or gel, how would you describe the

2 A Just to be brief, because we have so little time,
3 I'm going to say it's like a Jello.
4 Q And that's surrounded by the annulus of the disc,
5 the annulus fibrosis, tough fibers outer coating,
6 correct?
7 A Correct.
8 Q And that's -- those sit between each of the
9 bottom vertebral body of the disc -- of the vertebrae
10 above and below the top of the vertebral body from below?
11 A Right. I did my best to explain it with the
12 model earlier.
13 Q I understand, but I want to kind of give a little
14 flavor of the consistency of what we are dealing with.
15 If you removed some of the fluid, the liquid from
16 the discs, they tend to flatten, I'm trying to think like
17 a jelly donut to some extent, if you took the jelly out,
18 they become narrower, the disc height becomes less?
19 A Well, it's a generic statement. That isn't
20 present at the levels we did surgery in this case, but
21 yes.
22 Q I'm asking generic statements at this point, all
23 right.
24 And typically, that would be called a bulge?
25 A No.

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1 GERLING - CROSS
2 Q You don't call that a bulge?
3 A Not what you're describing, no.
4 Q As part of the degenerative disc disease process,
5 disc do bulge?
6 A They can, yes.
7 Q The ligaments that hold the disc in place, they
8 can become thickened?
9 A They can.
10 Q That's called ligamentous hypertrophy,
11 hypertrophy meaning growth, overgrowth?
12 A Yes.
13 Q The disc can continue to degenerate further and
14 you can have discs that herniate over time, correct?
15 A Not without trauma, no.
16 Q Never without trauma is what you're saying?
17 A Right, not without trauma.
18 Q That's your opinion?
19 A That's the way it is. That's how you define a
20 disc herniation.
21 Q That's your opinion?
22 A No, that's the way it is defined.
23 MR. BOTTARI: Objection.
24 Q Now, you can have -- as these discs, either the

2 that form along the edge of the vertebral bodies?
 3 A They can. It wasn't present in this case, but
 4 yes.
 5 Q We're not talking this specific case, I'm talking
 6 about its process.
 7 Those are bone spurs, they are sometimes called
 8 osteophytes, the bone spurs are sometimes called
 9 osteophytes, correct?
 10 A In a scenario where somebody has degenerative
 11 disc disease as their primary issue, then you would find
 12 those, but not in this case.
 13 Q I'm not asking you about this case, I know that's
 14 your opinion, I want to get there, but I'm trying to get
 15 you through the degenerative disc disease process.
 16 And these discs, the disc in the osteophytes,
 17 basically, what these osteophytes do are try to buffer up
 18 the sides of the disc, the degenerated disc, correct?
 19 A Well, I'm not a hundred percent sure that's been
 20 proven, but --
 21 Q That's the general case?
 22 A That's the belief.
 23 Q When you change the architecture of a -- a
 24 difference in height, between one vertebral and one --
 25 between two vertebrae, you refer that to the disc height,

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1 GERLING - CROSS
 2 that's something you can see on a x-ray?
 3 A Or CT scan.
 4 Q And one of the things you look for on an x-ray or
 5 CT scan, whether or not those disc heights are
 6 maintained, correct?
 7 A Yes.
 8 Q And that's an indication that the disc has not
 9 collapsed or lost content, correct?
 10 A Or herniated, yes.
 11 Q Now, when the disc space narrows, that changes
 12 the relationship between these joints, does it not?
 13 A Yes, it can.
 14 Q And these joints, when you change that
 15 relationship, they become arthritic, right, they are
 16 wearing?
 17 A In some people, they do. In some people, they
 18 don't, yes.
 19 Q And when they become arthritic, they form bone
 20 spurs or arthrosis, correct?
 21 A They can, in some people.
 22 Q And those bone spurs, they can encroach down on
 23 the neural foramen and a nerve root passing over one of
 24 those bone spurs can become irritated, correct?

2 Q And similarly, if there are bone spurs on the
 3 other side on the uncinata area, if they encroach into
 4 the foraminal space or into the spinal cord area, they
 5 can inflame the radicular nerves or the spinal cord, the
 6 thecal sac, correct?
 7 A They can, yes.
 8 Q So you can have degenerative bony conditions that
 9 can cause radicular symptoms, correct?
 10 A Yes, but that's not related to this case.
 11 Q I understand that's your contention.
 12 Now, doctor, you have your chart with you.
 13 MR. McGUINNESS: May I approach the witness,
 14 your Honor.
 15 THE COURT: You may.
 16 Q We were provided with what's been marked as
 17 Defendant's Exhibit I and I ask you, have you seen that
 18 document before?
 19 A Yes.
 20 Q Do you have that document, your copy of that
 21 document with you here today?
 22 A Yes, I believe so.
 23 Q Double check it word for word, if you would,
 24 doctor. What you have here today is different than the
 25 other visit note that's shown in Defendant's Exhibit I,

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1 GERLING - CROSS
 2 correct?
 3 A Yes. It appears that the subject heading is
 4 different and that there are -- I'm not sure, one was
 5 done before the other. One is the unedited version. It
 6 looks like the one that you have is --
 7 Q It's the original. When was that edited, doctor,
 8 if that was edited?
 9 A I'm not sure which one came first, but it looks
 10 like --
 11 Q This is the one we got.
 12 THE COURT: Don't interrupt.
 13 MR. BOTTARI: Objection.
 14 A I'm not sure which one you -- I don't know when
 15 you got this. When did you receive this?
 16 Q When your client's lawyer gave it to us.
 17 A Maybe this was generated like initially when the
 18 patient was initially seen before I actually had a chance
 19 to go through it and put the headings in.
 20 The substance of it is the same, it's just that
 21 there is not a heading here and this was -- this was an
 22 issue --
 23 Q We will get to whether or not the substance is
 24 the same. You first saw Mr. Carter -- let me back up a
 25 --

2 We talked about the degenerative disc disease.
3 Talking about your practice in general, when you see a
4 patient for the first time, you take a history from him,
5 correct?
6 A Correct.
7 Q It's important, history is important?
8 A Yes.
9 Q I mean, it's important enough because you can
10 actually sometimes make a diagnosis based on the history
11 alone, correct?
12 A Well, you would never rely on it on purely
13 history alone, but certainly, you can get most of the way
14 there.
15 Q And when you do a physical examination of the --
16 do a physician examination of the patient, there is a
17 process that you go through, a methodology, basically,
18 because you do the same exam with every patient,
19 generally, you get a gestalt of how the patient is
20 generally, an overview, of how is he walking, how is he
21 moving, things of that nature?
22 A You are simplifying thirteen years of practice
23 and seven years of training into two sentences, so I
24 wouldn't say that I only diagnose somebody based on your
25 gestalt, what you just described.

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1 GERLING - CROSS
2 Q No, no, I'm saying there are two parts to your
3 initial encounter with the patient, you take a history,
4 you do a physical exam, okay.
5 As part of your physical exam, all I'm saying is,
6 you have a process that you go through, that because of
7 those seven years of training and thirteen years of
8 experience, you look at a patient and you have a certain
9 thing -- you have a certain methodology that you go
10 through to evaluate as part of the examination, fair to
11 say?
12 A I would agree with that, yes.
13 Q I mean, you get an overview of them, you start up
14 with the cranial nerves, however you do it, but you have
15 a process, you follow every time and you go through --
16 A That's what I disagree with. Every time implies
17 I do the exact same thing every time, that's not true.
18 Q You focus on things where things need to be
19 focused on, but in the back of your head, you have a
20 mental outline, if you will, of what you want to look at,
21 through your years of training?
22 A I don't know what you're talking about, the
23 mental outline.
24 Q That's fine, doctor.

2 things like the onset of complaints, correct?
3 A Yes.
4 Q You want to find out if the person has had prior
5 problems, prior treatment, correct?
6 A Yes.
7 Q You want to find out all the comorbidities,
8 correct?
9 A We try to focus on what we think is important,
10 yes.
11 Q You want to look at the mechanism of injury
12 because you want to understand how the physical forces
13 are acting on the body?
14 A Well, we can't look at the force of injury when
15 we are speaking to them in the office, no.
16 Q But you would like to know how it happened?
17 A Yes, we ask them about that, definitely.
18 Q I mean, you know that -- you would expect that a
19 certain kind of accident would have certain kind of
20 forces, be capable of causing a certain kind of injury,
21 you see different patterns of injury?
22 A Of course, if somebody has a certain type of
23 injuries that are different.
24 Q I guess what I'm saying, understanding the
25 mechanism, how the forces work on the body, gives you

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1 GERLING - CROSS
2 some insight as to the kind of injuries you might expect?
3 A Yes. It gives you some insight.
4 Q Diabetes, it's a fairly insidious disease in
5 terms of its reach, is it not?
6 A Yes.
7 Q I mean, it can cause destruction of the
8 peripheral nerves, both the hands and the feet and legs
9 or hands, arms, feet and legs, correct?
10 A It can, yes.
11 Q It causes injury to the peripheral vascular
12 system where the blood vessels start to shut down over
13 time, the blood supply to the tissues, its loss, the
14 tissues can die over time?
15 A There are a lot of things that can happen, yes.
16 Q But peripheral vascular disease and, actually,
17 there is a relationship between diabetes and coronary
18 artery disease, the same inflammatory process, the
19 inflammatory process that are behind both are related,
20 correct?
21 A You know, honestly, I am an expert --
22 Q It's not your area?
23 A I am an expert in the spine and I don't have a
24 lot of time. I can't come back on Monday, so I can't

2 Q So you don't have an opinion, you have no
3 knowledge whatsoever?

4 A I'm just not an expert in that. I can't give you
5 great answers on the mechanism of coronary artery disease
6 in patients with diabetes. I really would love to help
7 you with the spine, though.

8 Q Well, doctor, my question is, the extent of his
9 heart condition, any coronary artery disease, they would
10 impact on whether or not a person is a surgical
11 candidate, would they not?

12 A Of course, that's why we do preoperative testing
13 and clearances.

14 Q But still, ultimately, you are the surgeon, the
15 captain of the ship, you have to make the final call
16 whether or not you have clearance or not, correct?

17 A Yes, of course. Well, actually, that's not true.
18 The anesthesiologists are the ones that really ordain
19 over the cardiovascular exam and whether or not they are
20 cleared.

21 Q That's your practice choice, that's how you
22 choose to --

23 A No, that's just a fact. I mean, if I'm in the
24 hospital and we are doing the surgery and it's not
25 appropriate because of the cardiovascular status, then

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1 GERLING - CROSS

2 the anesthesiologist can at any time trump me and say no,
3 we're not doing it because it's inappropriate.

4 That really has no bearing on whether or not a
5 patient -- their cardiovascular status does not affect
6 whether or not they have fusion in their spine and
7 whether or not they have a successful outcome from
8 surgery.

9 Q But it might have some effect as to whether or
10 not they wake up from the anesthesia and that's not your
11 problem?

12 A That's correct and Mr. Carter did.

13 Q Now, you saw Mr. Carter for the first time on
14 October 29, 2014, correct?

15 A I believe so.

16 Q At that point, you said he had severe neck pain
17 radiating to the right upper extremity down to the hand,
18 bilateral shoulders down the back with severe associated
19 headaches, correct?

20 A Yes.

21 Q He talked about low back pain radiating down his
22 buttocks and down both legs, numbness extending down both
23 arms and into the bilateral thighs and legs, correct?

24 A Correct.

2 you say all of these symptoms emanated from a car
3 accident where he was a passenger on 7/3/12, right, what
4 do you know about that car accident?

5 A My understanding is that he was rear ended.

6 Q Other than rear ended, do you have any idea of
7 the force of the impact?

8 A I don't think anybody does.

9 Q Do you have any idea of the speeds involved in
10 the vehicle?

11 MR. BOTTARI: Objection.

12 A Yes, I do.

13 Q It's not in your chart, when did you -- it's not
14 in your chart, is it?

15 A Nor would I include that type of thing in my
16 chart.

17 Q Well, you didn't?

18 A I'm sorry?

19 Q You didn't ask Mr. Carter what the speeds were
20 involved, correct?

21 A How do you know that?

22 Q Well, I'm asking you, you didn't note it in your
23 chart?

24 A You said it, you didn't ask it.

25 Q Did you ask Mr. Carter on the day of the -- on

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1 GERLING - CROSS

2 the day of your first encounter what the speed of the
3 vehicles were?

4 A I don't recall whether I did.

5 Q And certainly it's not -- the speed of the
6 vehicles is not mentioned in the chart, correct?

7 A No.

8 Q And the chart doesn't even mention it was a rear
9 end accident, correct?

10 A Correct.

11 Q Now, he talks about having complaints and
12 difficulty of walking a block at a time because of severe
13 back pain and leg pain.

14 Do you know what his baseline was before the
15 accident about his walking?

16 A It's my understanding that he was walking
17 normally.

18 Q Normally?

19 A Yes.

20 Q Did he tell you that or did you just assume it?

21 A Well, I asked him about whether or not he had
22 problems beforehand, but I don't have -- I didn't
23 actually document whether he told me that, no.

24 Q Now, on that first visit, did you make any

2 failure -- well, you make mention that he had heart
3 failure with an internal defibrillator, right?
4 A Yes.
5 Q You made mention that he had diabetes and high
6 blood pressure. Did you make mention as to whether or
7 not his diabetes was under control?
8 A No.
9 Q Now, after taking that history, you began -- you
10 started your physical examination and in terms of his
11 thoracolumbar or the mid spine, you found that his range
12 of motion was restricted but restricted by pain, that was
13 your finding there?
14 A Yes.
15 Q That's subjective?
16 A No, this was in the objective section.
17 Q I haven't got there yet.
18 A No, you just asked me a question, I answered it.
19 Q I understand.
20 But when you said his range of motion is
21 restricted by pain, that's subjective, correct?
22 A No. This is in the objective section in the
23 physical exam section.
24 Q Now, doctor, when you asked him to move, you
25 asked your patient to move, how do you do the range of

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1 GERLING - CROSS
2 motion in the thoraco -- in the thoracic area, do you
3 ask the patient to bend, move, twist, what do you ask him
4 to do or how do you do it?
5 A We have them flex. We get to the point where
6 they say that they are in pain and then we palpate their
7 spine for spasm and tenderness. We look for visual cues
8 of pain that patients have.
9 That's what we do as a diagnostician and we
10 actually feel for a physical end point, typically, as
11 well.
12 Q But you ask him to actively move?
13 A And passively.
14 Q And passively, all right.
15 Now, did you specifically note where the spasm
16 was in the mid spine?
17 A In the lumbar spine.
18 Q Well, I'm talking about the thoracolumbar spine,
19 you said tenderness and spasm, did you describe what
20 muscle groups or where it was?
21 A No, that's not a part of my customary practice.
22 Q But you could do it?
23 A It's not necessary.
24 Q In your opinion?

2 MR. BOTTARI: Objection.
3 A -- well known clinician, yes.
4 Q How about in the cervical spine, you note that
5 his cervical range of motion is due to pain and again,
6 you state that he has got spasm and tenderness.
7 Did you make notation of where, what muscle
8 groups were involved, yes or no?
9 A No. Again, not specifically --
10 Q All right, doctor, that's all I'm asking you.
11 A I can finish the answer. Not specifically --
12 Q Well, doctor, it was a yes or no question.
13 A I could finish the answer. I will finish the
14 answer if you'd like me too.
15 THE COURT: Doctor, if you just answer yes or
16 no, it's sufficient, it will go faster.
17 THE WITNESS: Okay.
18 Q You did the range of motion testing of the back
19 and the neck in the mid spine, correct?
20 A Yes.
21 Q Now, you evaluated his gait, you made note that
22 he has poor balance and an antalgic gait. Under your
23 musculoskeletal evaluation, you make a statement, there
24 is painful range of motion of the right shoulder which
25 was nonconcordant with radicular symptoms extending down

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1 GERLING - CROSS
2 to the hand.
3 Did you make that statement, doctor?
4 A Can you show me what you're referring to?
5 Q Yes, that statement is not in the copy of the
6 report that you have, correct?
7 A I don't think so.
8 Q Confirm, doctor, is it in there or not?
9 A I have to look at what you're referring to. Can
10 you repeat what you said then?
11 MR. BOTTARI: Objection. Can you show the
12 doctor --
13 Q There is painful range of motion right shoulder
14 which was nonconcordant with radicular symptoms extending
15 down to the hand. Is that statement in the report that
16 you brought to court today?
17 A No.
18 Q When you say the symptoms are nonconcordant with
19 radicular symptoms, what you're saying is that those
20 symptoms are not matching up with your understanding of
21 the nerve distributions; is that correct?
22 MR. BOTTARI: Objection.
23 A Yes.
24 THE COURT: Overruled.

2 nonconcordant with radicular symptoms, that are not
 3 explained by the wiring diagram, if you will, that we
 4 have as far as the nervous system in the body, correct?
 5 A Yes, sir.
 6 Q You mentioned earlier, three functions, they have
 7 a reflex function, they have a motor function, they have
 8 a sensory function, fair enough?
 9 A Yes.
 10 Q The motor function, you know that certain nerve
 11 roots form certain branches and they go to specific
 12 muscles and I'm saying, there is some variations from
 13 person to person, but generally, you understand what
 14 nerve goes to what muscle, fair enough?
 15 A Yes.
 16 Q And there are certain nerves, sensory nerves that
 17 go to certain areas of the skin and the -- certain areas
 18 of the body, that provide certain sensory functions in
 19 that area?
 20 A Yes.
 21 Q In those regions, those are called dermatomes?
 22 A Yes.
 23 Q And just to kind of -- have you seen
 24 Dr. Netter's drawings?
 25 A Yes.

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1 GERLING - CROSS
 2 Q I can show you what's been marked as Defendant's
 3 Exhibit H and ask you, before we show it to the jury,
 4 would that help explain what the sensory dermatomes are
 5 for the body?
 6 A Yes.
 7 Q In effect, they lay out a wiring diagram of where
 8 the sensory nerves go --
 9 A Yes.
 10 Q -- from the nerve endings. Okay.
 11 A No, that is with the caveat that people are not
 12 all wired exactly the same. There is anatomic
 13 variations.
 14 Q You can usually see a one -- you can have a one
 15 level --
 16 A Sometimes, the distribution is slightly
 17 different, that's the typical pattern that's believed. I
 18 mean that was published in the fifties or something like
 19 that, but it is still reasonably accurate.
 20 Q For example, Mr. Carter was complaining of
 21 problems in his pinky fingers and index finger or did you
 22 not make note of it?
 23 A I don't think that I made note of that.
 24 Q You mentioned that he was having some clumsiness

2 A Yes.
 3 Q And he was complaining of some numbness and
 4 tingling and kind of a glove or a stocking pattern,
 5 correct?
 6 A No. I didn't say that.
 7 Q You didn't find that, he didn't make those
 8 complaints?
 9 A Well, I didn't document that, no.
 10 Q I mean, so the jury understands, if you hold your
 11 finger like that, generally, that finger, that thumb, the
 12 side of your index finger, that's affected by the C-6
 13 nerve root, correct, and the C-7 would cover the sensory
 14 function in the middle and ring finger, part of the ring
 15 finger?
 16 A About 75 percent of the time, yes.
 17 Q And then C-8 -- so basically, it would be -- in
 18 order for the entire hand to be numb, you would need --
 19 you would typically expect to find the C-6, 7 and 8 nerve
 20 roots, there would be some problem with those nerve roots
 21 to cause complete numbness in the hand, if it were a
 22 radicular problem, fair enough?
 23 A Well, when you are talking about the subjective
 24 which you're right now, first of all, I didn't delineate
 25 whether he was referring to one digit or the other, but I

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1 GERLING - CROSS
 2 mean, in fairness, that's true, but most patients,
 3 though, have difficulty discerning exactly what finger is
 4 going numb or that's bothering them. I mean, you would
 5 be surprised at what people say.
 6 Q I understand, but with diabetic polyneuropathy,
 7 you have problems with all the fingers and all the
 8 surfaces of the hand, that's not uncommon, is it?
 9 A No.
 10 Q That's what you expect with peripheral
 11 neuropathy, right, and similarly, if you got stocking
 12 pattern numbness, in the calf, the entire foot, that's
 13 what you expect with diabetic polyneuropathy, you expect
 14 that stocking pattern, because the nerve roots that go
 15 into the leg, again, you've got specific nerves that go
 16 to specific muscles and specific areas of the body, for
 17 example, the areas shown here provide sensation, the L-4
 18 root covers the first four toes, S-1 covers the outer
 19 rear aspect of the leg, L-5 covers basically the ass
 20 aspect of the calf and to have numbness up in this area,
 21 you would have to have the L-2, L-3, L-4 nerve root
 22 involvement if the problem was radicular, correct?
 23 A Really, not necessarily. I mean, honestly, if I
 24 felt that he had a stocking/glove distribution of his

2 complaining of that type of sensory, I would make note of
3 it. But you're right, it was significant. I knew that
4 he had diabetes.
5 Q Now, he brought with him his CT scan of his neck
6 and his back that he got back on, I believe it was, July
7 12 of 2012, do you have that in the chart there?
8 A Yes.
9 Q And you reviewed that, correct?
10 A I don't have the report from it.
11 Q I believe it is clipped in one -- in the smaller
12 package of documents that you have. If I could approach,
13 I will find it for you. Here it is, you got it.
14 A That's from 2015.
15 Q Okay, I'm sorry, it is back there further. Do
16 you have another group of papers? I thought I saw it.
17 A No.
18 Q Just to save time, I'm going to borrow
19 Plaintiff's Exhibit 4 from Dr. Hostin's records.
20 Doctor, you don't have the prior 7/12 CT scans in
21 your chart?
22 A I don't have the report, no. I have what I said
23 about it, what I referred to it as.
24 MR. McGUINNESS: Just to kind of keep things
25 going, may I approach the witness, your Honor?

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1 GERLING - CROSS
2 THE COURT: You may.
3 Q There you go.
4 A Thank you.
5 Q I just want to go through some points with you.
6 On this one, normal alignment was seen at the time,
7 correct?
8 A Yes.
9 Q No perispinal abnormalities, that means soft
10 tissue around the spines were normal, correct?
11 A No, it doesn't mean that they were normal, just
12 that they can't see any in the CT scan because the CT
13 scan doesn't really look at that.
14 Q But you were able to tell from the study that
15 they were able to state from the study that there was no
16 soft tissue swelling seen?
17 A Correct.
18 Q C-2-3, that's the first level where there is a
19 disc, right?
20 A Yes.
21 Q That's normal, correct?
22 A Yes.
23 Q C-3-4, there is no evidence of disc herniation or
24 central canal stenosis. There is bilateral uncinat

2 seen, correct?
3 A Right.
4 Q Foraminal, the uncinat spurring, those are the
5 bone spurs?
6 A Yes.
7 Q They wouldn't occur within nine days of the
8 accident, correct, that is something that takes years,
9 correct?
10 A Right, these are mild changes as it says.
11 Q Well, actually, it doesn't say that?
12 A Yes, it actually says mild.
13 Q Mild disc bulge?
14 A They don't actually quantify how bad those are.
15 Q It doesn't say mild, it says mild disc bulge, but
16 it doesn't quantify it mild or severe?
17 A Uncinate is a part of the disc area, so it is
18 saying that -- if you want me to interpret this, because
19 that's what you want me to do, this is saying --
20 Q No, doctor, I want to -- what it says is
21 bilateral uncinat spurring with foraminal narrowing,
22 those are bone spurs?
23 A It's not quantifying that, the only place that
24 quantifies this is mild.
25 Q That's all it says, doctor.

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1 GERLING - CROSS
2 C-4-5, there is no evidence of disc herniation,
3 foraminal narrowing or central canal stenosis at the 4-5
4 level, posterior bony spurring with underlying disc
5 bulging is noted at the C-4-5, level, correct?
6 A Yes.
7 Q That's bone spurs again, that's something that
8 would have taken place over time, correct?
9 A Correct.
10 Q It would not have happened in the nine days
11 between the accident and when the CT scan was taken,
12 correct?
13 A Correct.
14 Q C-5-6, there is no evidence of herniation or
15 central canal stenosis, there is bilateral uncinat
16 spurring with foraminal narrowing, correct?
17 A Correct.
18 Q And that foraminal narrowing, that's also called
19 foraminal stenosis, stenosis meaning a choking down or
20 narrowing?
21 A Well, it doesn't say that there is stenosis. It
22 says there is no central stenosis, but it doesn't say
23 that there is foraminal stenosis.
24 Q It doesn't say that there is central canal

2 spurring with foraminal narrowing?
3 A But it doesn't say that there is clinically
4 significant stenosis.
5 Q Radiologists aren't clinicians, correct?
6 A They are not.
7 Q No, they don't actually lay their hands on the
8 patient?
9 MR. BOTTARI: Objection.
10 Q Right, they don't have any history?
11 THE COURT: Let's just move it along.
12 Q It says foraminal narrowing?
13 A Narrowing, yes.
14 Q It says straightening of the spine which can be
15 seen with muscle spasm, but it can also be position,
16 correct?
17 MR. BOTTARI: Objection. Overruled.
18 Q It talks about spondylosis as noted above, that
19 spondylosis is the degenerative disc disease process,
20 correct, yes or no?
21 A The natural aging process.
22 Q The natural aging process?
23 A Yes.
24 Q Now, he also had a lumbar CT scan that was done
25 nine days after the accident, at L-4, L-1-2 -- I'm

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1 GERLING - CROSS
2 sorry, lumbar -- I'm sorry, space L-1-2, L-1, L-2, no
3 evidence of disc herniation, foraminal narrowing or
4 central canal stenosis, same findings at all levels from
5 L-1 through L-5, this is essentially a normal exam, the
6 lumbar spine?
7 A There is no fractures or dislocations.
8 Q There is no evidence of disc herniation,
9 foraminal narrowing or central canal stenosis on the CT
10 scan from nine days after the accident, correct?
11 A Correct.
12 Q It is essentially a normal exam on the lumbar
13 spine, correct?
14 A Within the limits of that exam, yes.
15 Q Now, you saw him for a couple of visits before
16 you took him to the operating room and what I want to do
17 is just turn to your operative report for your first neck
18 surgery, if you don't mind, doctor.
19 A Yes.
20 Q 2/23/15?
21 A Yes.
22 Q You have it there with you?
23 A Yes, sir.
24 Q Now, your actual plan before that from the

2 and fusion at C-3-4 -- I'm sorry, at three levels of the
3 spine, correct?
4 A Well, we had discussed the possibility, yes.
5 Q All right, and after conferring with the
6 anesthesiologist and the cardiologist, you felt that was
7 too high a risk to do more than a single level and that
8 you were just going to proceed with the 5-6 level; is
9 that correct?
10 A I recommended that I do as little as possible
11 given his risk factors, yes.
12 Q But your original plan was that he needed surgery
13 at all three levels where he had the uncinate spurring,
14 correct?
15 A We described and discussed --
16 Q Yes or no, doctor.
17 A It's not a yes or no question.
18 Q The original plan was to do those three levels,
19 that was your recommendation, correct?
20 A It's not a yes or no answer. Can I answer?
21 Q All right, doctor.
22 A Okay, so I discussed the possibility with him
23 that all three would be taken and given all of the
24 different circumstances associated with, first of all,
25 his risk factors and then also, when I found that it did

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1 GERLING - CROSS
2 not look as bad as the C-5-6 level, I felt that it was
3 appropriate to just do that level.
4 Q But when you went in and -- in any event, he had
5 uncinate spurring, those bone spurs, at all three of
6 those levels where you originally intended -- you
7 originally had contemplated doing the surgery, right?
8 A That's not a yes or no answer.
9 Q That's what the CT scan of the 12th indicated,
10 correct?
11 A Can I answer without a yes or no?
12 Q Yes or no, doctor?
13 A It's not a yes or no question.
14 MR. BOTTARI: Objection.
15 THE COURT: You can answer it yes or no.
16 A I can't answer it yes or no.
17 Q Just look at the report, doctor, did he have
18 uncinate spurring at those three levels, C-3-4?
19 A I can't answer your question with yes or no.
20 Q 5-6?
21 A I don't know why you wouldn't want me to answer
22 the question.
23 Q Doctor, I just want you to answer the precise
24 question I'm asking.
25

2 Q You have testified --

3 THE COURT: Let's stop the back and forth.

4 Doctor, if you can answer yes or no, you will do

5 that. If you can't, you will say I can't do that.

6 A I can't do that.

7 Q Did the report indicate that there was uncinat

8 spurring at 3-4, 4-5 and 5-6 in the cervical spine, yes

9 or no?

10 A Yes, it does.

11 Q When you had the visit with Mr. Carter before his

12 surgery, that was the surgery that you initially had

13 discussed with him, correct?

14 A I don't know what you mean by that.

15 Q Doing a surgery at all three levels was the

16 initial thought, correct?

17 A We discussed the possibility that I may have to

18 remove all three, yes.

19 Q But in any event, when you took him to the

20 operating room, you only did the 5-6 level, correct?

21 A Correct.

22 Q Now, you did an anterior approach and when you

23 are coming basically through this side of the neck,

24 correct?

25 A The left side.

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1 GERLING - CROSS

2 Q On left side, the left side but you are coming

3 from front to back, you're going in anterior, coming in

4 from the anterior side of the body?

5 A Yes.

6 Q Now, once you made the opening, you got access

7 where you can see the 5-6 level, you were able to

8 determine that the posterior longitudinal ligament was

9 intact and you were able to leave it intact, you have

10 your operative report?

11 A During the surgery.

12 Q During --

13 A Yes, yes.

14 Q And you noted that there is a posterior disc

15 herniation that you visualized, how wide was this

16 herniation?

17 A I don't directly recall exactly how wide it was.

18 Q You certainly didn't make any mention as to

19 whether it was broad or narrow or focused or anything

20 like that in your report, correct?

21 A That's not clinically relevant.

22 Q You didn't do it?

23 A It's not clinically relevant.

24 Q Doctor, you didn't do it?

2 A Correct.

3 Q You didn't do it?

4 A Correct.

5 THE COURT: He said right. Move on.

6 Q But you went beyond the disc in the neck and you

7 did -- decompression was carried out laterally at the

8 uncovertebral joints, correct?

9 A Correct, that's my standard protocol.

10 Q I didn't ask you that.

11 I asked you simply, did you do that, you went

12 beyond removing the disc out to the uncovertebral joints

13 and these are these joints back here?

14 A Yes.

15 Q And you removed those -- as part of that

16 surgery, you removed those bony joints, the bony portions

17 of those joints, correct?

18 A No, not all of it, just a portion.

19 Q The portion where they came into contact?

20 A No, just enough to fashion space for the spacer,

21 the interbody, the grafted cage.

22 Q Now the spacer is between the vertebral body,

23 correct?

24 A That's where the uncovertebral joint is.

25 Q What joints are these back here, these facet

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1 GERLING - CROSS

2 joints, uncovertebral joints?

3 A No.

4 Q The uncovertebral joints are where?

5 A In the side of the disc.

6 Q And you actually removed -- but you actually

7 removed the uncovertebral joints, correct?

8 A Not entirely, no.

9 Q Entirely?

10 A No, it's just to square off the space to fit the

11 cage in.

12 Q And then you put the -- you placed the cage in,

13 you put on the plate and the screws?

14 A Yes.

15 Q Did the closure on it, correct?

16 A Yes.

17 Q Now, when your patient leaves you, you give them

18 certain instructions?

19 A Yes.

20 Q You want them limited in their activities,

21 limited to some bed rest for a period of time, what

22 instructions did you give a patient who just had a

23 cervical fusion?

24 A Not to lift anything heavy for six weeks, to be

2 Q Why?

3 A To not submerge their wound.

4 Q Why to be careful about what they eat?

5 A Because they will have a very sore throat and it

6 can cause swelling.

7 Q And a swelling can cause collection of fluid and

8 can cause a seroma?

9 A I'm not actually familiar with that.

10 Q But it's an accumulation of fluid in the area and

11 we were talking that also, ultimately, it's fluid that

12 tears through tissues that have already been irritated by

13 virtue of the surgery, right?

14 A I'm not sure what you're referring to. You mean

15 the swelling from the surgery or you mean from eating

16 food?

17 Q You just told the jury that eating inappropriate

18 foods can cause swelling?

19 A There is swelling and it can exacerbate and

20 irritate the tissues.

21 Q And irritate the tissue can cause accumulation of

22 fluid?

23 A No, that doesn't cause seroma. You said that, I

24 didn't.

25 Q I'm asking, you're saying it doesn't, you're

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1 GERLING - CROSS

2 saying it does not cause accumulation?

3 A Every single patient I do surgery on has

4 inflammation in the throat and it doesn't cause seroma

5 very often, maybe one in five hundred, really.

6 Q And but anyway, you instruct your patients to eat

7 soft foods, correct?

8 A We encourage them to eat pureed soft foods.

9 Q For how long after the surgery?

10 A It's not clearly defined.

11 Q About how long would you like to see them do it?

12 A It's not clearly defined. It's just a matter of

13 how much swelling they have.

14 If they feel they can tolerate, then they are

15 fine eating more coarse food. We warn them if they are

16 having swelling, difficult to swallow, use a pureed diet.

17 Q When Mr. Carter came back on his first visit, I

18 believe he came back and saw you on March 4 after the

19 surgery, he was having -- he was having swelling?

20 A I'm sorry?

21 Q He still had swelling?

22 A Well, he had a fluid in his neck. He had a

23 seroma.

24 Q But he still had some swelling as well, correct?

2 That wasn't the issue.

3 Q You made a point in your chart to remind him

4 about eating soft foods, yogurt and pureed vegetables and

5 stuff, correct?

6 A Well, that would help him in the context of his

7 symptoms.

8 Q But you are reinforcing something that you have

9 already told him and you are noting it specifically in

10 your chart, correct?

11 A Sure, yes.

12 Q Now, you took care of the seroma, it was a

13 complication and to kind of just keep moving, try to

14 focus on now the lumbar spine, when you did the first

15 lumbar spine surgery on what, 6/8/15?

16 A Yes.

17 Q So that would be a month shy of three years after

18 the accident, correct?

19 A Yes.

20 Q And you had just prior to having lumbar surgery,

21 you went back and you had another CT scan done by

22 Dr. Cole?

23 A I don't know who did it. I will look.

24 Q Dr. Cole's office?

25 A From May 8, 2015, it was done at Lenox Hill

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1 GERLING - CROSS

2 Radiology.

3 Q And that's Dr. Cole's facility?

4 A Not that I know of. I don't think it is.

5 Q But anyway, it was about a month prior, are you

6 familiar with something called interval change, correct?

7 A Yes.

8 Q Did you review the films from 6/8/15 with the

9 films of --

10 A From --

11 Q -- of 7/12/12?

12 A Yes. I have reviewed both, it is from 5/8/15,

13 yes.

14 Q You actually looked at the films?

15 A I have actually looked at the films from both, 12

16 and 15.

17 Q You went ahead and did you make any note of any

18 interval change?

19 A I believe there was.

20 Q Okay. You believe that there were herniations

21 that appeared in 2015 that weren't present on 7/12/12, is

22 that what you're saying?

23 A Well --

24 Q Yes or no, doctor?

2 tissue.

3 Q Yes or no, is that what you're saying?

4 MR. BOTTARI: Objection.

5 THE COURT: Repeat the question.

6 Q The interval change that you are stating is that

7 you believe that there are herniations in May of 2015

8 that you didn't see on the July 12, 2012, CT scan,

9 correct?

10 A No, I see the disc protruding posteriorly in 2012

11 as well.

12 Q Protruding, but you didn't see a herniation,

13 what's the specific --- withdrawn.

14 In any event, you took him to surgery, you went

15 in there, you did basically -- you approached from the

16 rear, you removed the disc, but in addition to removing

17 the disc, once you placed -- if you could refer to your

18 report, you were able to visualize the L-4-5 facet joints

19 and the lamina, correct, where the foraminal stenosis and

20 slight instability was noted on the right side, correct?

21 A Yes.

22 Q And that foraminal stenosis, that was caused by

23 the arthritic facet joints at that level?

24 A I didn't note any substantial arthritic changes,

25 no.

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1 GERLING - CROSS

2 Q But in any event, the right L-4-5 facet joint,

3 you removed that?

4 A Yes.

5 Q You performed a hemilaminectomy, what that means

6 is that you removed a portion, let's see --

7 A The low back.

8 Q You removed a portion of the lamina?

9 A Yes.

10 Q And you removed a portion of the facet joint on

11 the right side?

12 A Correct.

13 Q After doing that, you then went in there and you

14 did -- the right L-4-5 facet joint was fully excised

15 using a burr and pituitary -- so scrape it out, so you

16 removed the entire 4-5 facet joint?

17 A After we determined -- after I determined that I

18 was going to fuse it, yes.

19 Q In addition to doing the laminectomy, you also

20 did a foraminotomy, correct?

21 A Yes.

22 Q And what you mean by that is, not only did you

23 remove the bone from the facet joint, you removed bone

24 from the foramen, the bony window?

2 of the bone in the foraminal window trying to make space.

3 Q And what you do is trying to open up the air,

4 remove any existing bone spurs, make the window larger so

5 there is nothing there to irritate the nerve root, fair

6 enough?

7 A Not just bone spurs, but disc.

8 Q Okay, but foraminotomy, you are removing bone,

9 correct?

10 A Correct.

11 Q A laminectomy, a hemilaminectomy, you are

12 removing bone, correct?

13 A Correct.

14 Q The facet joint is bone, correct?

15 A Yes.

16 Q Thank you.

17 And it was the facet joints that were encroaching

18 into the foramen, the spurring, correct?

19 A No.

20 Q You disagree with that?

21 A Yes.

22 Q Thank you.

23 Then you went to the other side, after you put

24 -- going through, I'm just going to focus on some of the

25 dissection that you did.

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1 GERLING - CROSS

2 When you put the spacer in, you put half the

3 plate in or you put the plate in, secured half of it,

4 then went to the other side of the back, made another

5 incision, went in again, correct? I'm trying to keep it

6 simple.

7 A Not a plate, a cage.

8 Q A cage, but I mean, once the cage is in, you put

9 a -- there is a support on both sides?

10 A No, once you put the cage in, you just put screws

11 in.

12 Q All right, fair enough.

13 A And the rod.

14 Q Now, when you went to the left side, you did an

15 osteotomy of the L-4-5 facet joint on the left, correct,

16 the posterior infusion on the contralateral side was

17 carried out, osteotomy of the L-4-5 facet joint, so you

18 are working on the left side?

19 A Correct, to help the bone fuse.

20 Q But you are also removing the facet joint on that

21 side, correct?

22 A Yes, after you determine that you want to fuse

23 it.

24 Q All right, and then you note that you

2 correct?

3 A Yes.

4 Q So at that point, the facet joint on both sides

5 has been removed completely?

6 A No.

7 Q How much is left on either side?

8 A Well, we wouldn't do that unless we were fusing.

9 Q I understand.

10 A After we decide to do the fusion, then we resect

11 the entire facet on the side that we are working on,

12 where we put the caging, we need space and on the other

13 side, we just remove really the cartilaginous part and a

14 portion of it in order to have a surface to put bone

15 grafting on to diffuse it.

16 Q But you removed the cartilage from both the top

17 and -- from both halves?

18 A To try and fuse that, yes.

19 Q Now, that part of the surgery is fine.

20 At some point, when he came back to you, and

21 noted -- and you noted that the screws were -- or that

22 the instrumentation you put in was not where it was

23 supposed to be the first time, did Mr. Carter tell you

24 that shortly after your surgery, he had fallen down in

25 the bathroom?

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1 GERLING - CROSS

2 A I don't recall.

3 Q Is that something that you would have liked to

4 have known?

5 A Well, I mean, it would explain -- people do beat

6 themselves up. I mean, nobody wants to fall and, yes, I

7 mean, it doesn't change the fact that the screws were

8 loose.

9 Q I mean, nobody went in there and twisted the

10 screws, but the fact that he fell could very well cause

11 the screws to be loose, correct?

12 MR. BOTTARI: Objection.

13 A It could be one reason why.

14 Q But in any event, he never told you about the

15 fall, correct?

16 A I don't recall.

17 Q Falling after a fusion surgery could be a reason

18 why you have a non-union?

19 MR. BOTTARI: Objection.

20 Q Yes or no.

21 THE COURT: He can answer that.

22 A I mean, not -- that's not really described in

23 the literature very much. Most of the time people fall

24 after surgery because they are on medication, because of

2 Q All right, or they are having problems staying

3 within their physical limitations and their comorbidities

4 is another explanation, correct?

5 MR. BOTTARI: Objection.

6 THE COURT: Overruled.

7 A Most of the time, people fall after surgery

8 because they are on pain medication and they are in a lot

9 of pain.

10 Q Right, but part of your postoperative

11 instructions, I mean, you have to -- part of one of the

12 things you do, you do a fall assessment, right?

13 A We don't normally say things like, don't fall or

14 don't hit yourself in the head.

15 Q I understand.

16 A No.

17 Q But you might tell them, live within your

18 limitations?

19 MR. BOTTARI: Objection.

20 Q Correct?

21 A I would love to hire you and have you help me

22 with my counseling of patients post-op.

23 Q Well, what do you tell them, doctor?

24 A The same types of things I just told you already

25 before, don't lift anything heavy. I will from now on

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1 GERLING - CROSS

2 tell them not to fall.

3 Q I'm not asking you to do that, doctor.

4 I'm asking you, what your expectations are of the

5 patient, simply be aware of their limitations and their

6 problems and try to live within them, correct?

7 A I feel terrible for him that he fell.

8 Q I understand, but him falling for whatever reason

9 certainly explains the first disruption of the screws and

10 the -- as an explanation for the disruption of the

11 screws --

12 MR. BOTTARI: Objection.

13 THE COURT: Sustained. Move on.

14 Q In any event, he didn't tell you?

15 MR. BOTTARI: Objection.

16 THE COURT: Mr. McGuinness, would you stop

17 repeating and move along.

18 MR. MCGUINNESS: Your Honor, can I have a

19 side bar.

20 (Discussion held at side bar.)

21 BY MR. MCGUINNESS:

22 Q In any event, three months after he comes back

23 after you did the first surgery, he comes back and the

24 screws are disrupted and the spacer is out of place,

2 activities during that time; is that correct?

3 A I'm not sure where you get the information that

4 you are just saying.

5 Q Well, you saw him after the lumbar surgery, the

6 first lumbar surgery, correct?

7 A I don't think that I proved that his screws and

8 spacers were out at that point. It was more than a year

9 afterward.

10 Q In any event, the first time you saw him -- did

11 you not make a follow-up visit three months after the

12 lumbar spurs in September of 2015?

13 A He was seen in August 13, 2015, and then October

14 2015.

15 Q And at that point, at that point, there was a

16 disruption or a failure of the hardware?

17 A Not that I know of.

18 Q When did you first notice that?

19 A When we attained the x-ray.

20 Q When was that?

21 A I believe it was the x-ray that we were reviewing

22 earlier that was in 2017, a little past one year.

23 Q And if the Plaintiff had other fall down

24 incidents in that time interval, he never related those

25 to you, correct?

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1 GERLING - CROSS

2 A I don't know what you're referring to. I mean,

3 are we talking about hypothetical patients or our

4 patient?

5 THE COURT: I think the question is, did he

6 ever tell you that he had any fall incidents?

7 THE WITNESS: Not that I know of. I guess he

8 is implying that he did.

9 THE COURT: That's the question that he is

10 asking.

11 Q All we are trying to establish is whether or not

12 he related information to you?

13 A Not that I know of.

14 Q You went back and when you actually -- when you

15 went back and did the second surgery on his low back, and

16 that was -- I'm sorry, that was September 26, 2016, at

17 that point, you actually -- you removed the old

18 hardware, correct?

19 A Yes.

20 Q After removing the hardware, you also removed --

21 you also did additional facetectomy, correct?

22 A In order to try and help the bone fuse, yes.

23 Q So you removed additional facet joint?

24 A Additional bone.

2 already been removed prior?

3 A Well, some of it still remained.

4 Q You had to do a neurolysis, you went in there and

5 probed around the nerve root where it exited, correct, on

6 the right side?

7 A Yes.

8 Q And that was the foramen that you already opened

9 up before, correct?

10 A Right, we were trying to make sure that there was

11 nothing additionally causing the symptoms.

12 Q At that point, you went in, you put a larger

13 spacer in, correct?

14 A Yes.

15 Q It was larger -- how many -- I'm not sure how

16 they are sized, how much larger was it, the one you

17 placed in before?

18 A I don't think I quantified that.

19 Q But you put another one in and then you went in

20 with larger screws on the -- larger screw -- on either

21 side of the spine, is there a bar, is there a spacer,

22 what is that that the screws go through?

23 A They pass through the bone and through the

24 pedicle into the front of the vertebral body.

25 Q Do they pass through a plate or anything of that

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1 GERLING - REDIRECT

2 nature?

3 A No.

4 Q The screws just go into the vertebral bodies?

5 A That's the standard of care, yes, they go into

6 the body -- into the bone and then we connect the screws

7 with a rod.

8 Q And you just happen to use larger screws that

9 time?

10 A Well, when the screws are loosened, you can't put

11 in the same size, they would just be loose, so you upsize

12 them, you go higher.

13 MR. McGUINNESS: Doctor, I believe that's all

14 I have. Thank you.

15 THE WITNESS: Thank you.

16 MR. NASTRO: Nothing further, your Honor.

17 MR. BOTTARI: Two minutes, your Honor.

18 REDIRECT EXAMINATION BY

19 MR. BOTTARI:

20 Q Mr. McGuinness asked you about umpteen problems

21 in the spine --

22 MR. McGUINNESS: I'm going to object to

23 prefacing the comment with a personal attack.

24 THE COURT: Disregard that.

2 problems in Mr. Carter's neck or back prior to July of
3 2012?

4 MR. MCGUINNESS: Your Honor, unless he can
5 establish that he supplied him all the records --
6 THE COURT: He can ask that.
7 MR. MCGUINNESS: All right, but it is
8 misleading unless he has given him all the records.
9 THE COURT: We would rather not have any
10 speeches.
11 Q Anything that you have seen?
12 MR. MCGUINNESS: Am I overruled, your Honor?
13 THE COURT: Yes.
14 Q You can answer.
15 A I'm sorry, what's the question?
16 Q Have you seen anything about problems to
17 Mr. Carter's neck or back where he was symptomatic with
18 pain prior to July of 2012?
19 A I'm not aware of him ever having neck or back
20 problems before the accident.
21 Q Now, you talked about the fact or you were just
22 asked if someone fell, could that have anything to do
23 with screws being loosened, correct?
24 A Yes.
25 Q You said it might, you don't know?

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1 GERLING - REDIRECT
2 A I mean, if somebody -- theoretically, you could
3 damage what we did, but I haven't seen evidence of that
4 ever.
5 Q If someone fell because of a comorbidity such as
6 diabetes or lightheadedness from medication, is that also
7 a possibility?
8 A It is more likely postoperatively that somebody
9 who doesn't have a pattern of falling --
10 MR. MCGUINNESS: Your Honor, I'm going to
11 object to him giving an opinion that's not based on
12 this specific patient, the patient never related --
13 THE COURT: I understand.
14 Q We are talking Mr. Carter here, Mr. Carter has a
15 history of diabetes, he has a history of peripheral
16 neuropathy, correct?
17 A Yes.
18 Q He is also on lots of medication?
19 A Yes.
20 Q Could any of his comorbidity factors influence
21 his ability to walk and/or fall, just yes or no?
22 A Yes.
23 Q Someone with Mr. Carter's overall medical
24 picture, diabetes, hypertension, on lots of medication

2 risk factor for fusion surgery?
3 A Yes.
4 Q Why is that?
5 A They have a higher complication rate.
6 Q And that's -- what is your knowledge, what's the
7 basis of that, is that in the literature?
8 A In the literature, we have shown, in fact, I have
9 been -- some of my studies have shown, patients who have
10 diabetes have a higher risk of wound complication, such
11 as the one he had in his neck and he has higher risk of
12 not healing from the surgery.
13 Their healing potential is worse than others.
14 That doesn't mean we don't treat them and don't still do
15 the surgeries that we think are appropriate to try and
16 relieve them of nerve pain, to try and remove disc
17 herniations.
18 MR. BOTTARI: I have nothing further.
19 THE COURT: Briefly.
20 RECROSS EXAMINATION BY
21 MR. MCGUINNESS:
22 Q Other than the CT scans of July 12, 2012, do you
23 have any other records that belong to Mr. Carter?
24 A I'm sorry?
25 Q Were you provided any other records for

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1 GERLING - RECROSS
2 Mr. Carter other than the CT scans of July 12, 2012?
3 MR. BOTTARI: Objection.
4 A I have reviewed pain management records. I have
5 reviewed physical therapy assessments and notes as well.
6 Q And these are from the pain management, this is
7 from Dr. Reyfman and Dr. Goswami, Dr. Thomas, that group?
8 A From their office.
9 Q Now, there is nothing in your chart there without
10 those records, correct?
11 A Right.
12 Q And there is nothing in your chart there about
13 who referred Mr. Carter to you, is there?
14 A No, it does. I carbon copy the primary care
15 doctor, Dr. Williams.
16 Q Well, you happen to know, you are inferring that,
17 correct?
18 A No, I did put that in there because that's what I
19 do when I carbon copy people. I send them a cover
20 letter.
21 Q That's the person who you -- where you would
22 customarily ask the patient, who is your primary care
23 provider and copy them a letter, but that doesn't mean
24 necessarily that they are the referring person, correct,

2 A As I said, that's my standard operating
3 procedure, so if he was referred by Dr. Reyfman, I would
4 have carbon copied him and sent him a cover letter.
5 Q And if Dr. Reyfman had sent them to you or sent
6 Mr. Carter to you and you asked him who his primary care
7 provider was because you needed medical clearance, you
8 would contact the primary care provider, would you not?
9 MR. BOTTARI: Objection.
10 A Maybe, but that has nothing to do with what I
11 just said about who referred the patient to me.
12 Q But in any event, other than -- did you ever see
13 his family doctor's records?
14 A No, I have not.
15 Q Did you ever see a videotape or photographs of
16 the property damage to the vehicle?
17 MR. BOTTARI: Objection. Beyond the scope.
18 THE COURT: It is beyond the scope. Let him
19 answer that last question.
20 A No.
21 Q Doctor, do you have a mental picture of what kind
22 of accident was involved here?
23 MR. BOTTARI: Objection.
24 THE COURT: That is beyond the scope. We
25 have been through that.

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1 PROCEEDINGS
2 MR. McGUINNESS: That's fine, your Honor.
3 MR. BOTTARI: Nothing further, Judge.
4 THE COURT: Thank you, doctor. You can step
5 down.
6 MR. BOTTARI: You can take your records, but
7 you can't take anything that's been marked.
8 THE COURT: We are done for the day. We will
9 start again with a medical witness tomorrow in the
10 morning.
11 MR. McGUINNESS: There is one in the morning
12 and I have got one in the afternoon.
13 THE COURT: We will have a busy day tomorrow.
14 Be here at 9:30 and enjoy your evening and don't
15 discuss the case.
16 (Jury exits courtroom.)

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