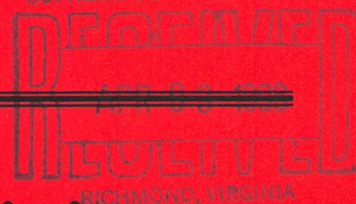


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CLERK
SUPREME COURT OF VIRGINIA



IN THE
Supreme Court of Virginia

RECORD NO. 951742

JEFFREY A. TITTSWORTH,

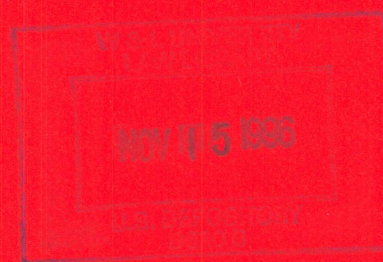
Appellant,

v.

STEPHANIE N. ROBINSON,

Appellee.

JOINT APPENDIX



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Table of Contents

Page Number

Motion for Judgment filed 1/24/94	1
Deposition of Donald G. Hoppe, M.D. taken on 3/6/95	4
Partial Transcript of Testimony and Judge's Instructions before the Honorable Carleton Penn, III on 3/17/95 and 3/20/95	36
Testimony of Jeffrey A. Tittsworth	39
Testimony of Michael Mastrotesano	92
Testimony of Stephanie Robinson	104
Testimony of Janet L. Rowe	112
Testimony of Alfred L. Cipriani	115
Testimony of Peter H. Abbrecht	152
Testimony of Jeffrey A. Tittsworth (Rebuttal)	181
Final Judgment Order entered 6/23/95	195

Exhibits

Defendant's Exhibits A thru H	198
Assignments of Error	199

V I R G I N I A:

IN THE CIRCUIT COURT OF STAFFORD COUNTY

Jeffrey A. Tittsworth

Plaintiff,

vs.

At Law No.:

JAN 24 1994

Stephanie N. Robinson
10 Winthrop Way
Stafford, VA 22554
(703) 720-1429
(STAFFORD COUNTY)

Defendant.

MOTION FOR JUDGMENT

COMES NOW the Plaintiff, Jeffrey A. Tittsworth, by counsel, and moves for judgment against Defendant, Stephanie N. Robinson, on the grounds and in the amount stated below:

1. Plaintiff, Jeffrey A. Tittsworth ("Tittsworth"), is a natural person and a resident of Stafford County, Virginia.
2. Defendant, Stephanie N. Robinson ("Robinson"), is a natural person and a resident of Stafford County, Virginia and venue is proper in this Court pursuant to Section 8.01-262 of the Code of Virginia, 1950, as amended.
3. On or about January 13, 1993, at approximately 5:15 p.m., Plaintiff, Tittsworth, was lawfully operating a motor vehicle, owned by him, stopped at a stop sign in the parking lot of People's Drug Store on Route 610 in Stafford County, Virginia.
4. That at the same time and place, Defendant, Robinson, was operating a motor vehicle in the parking lot of People's

Drug Store on Route 610 in Stafford County, Virginia.

5. At all times relevant hereto, it was Robinson's duty to operate the vehicle she was driving free from negligence and with due regard for the safety of other persons on the road.

6. Notwithstanding said duties, Defendant, Robinson, did then and there so recklessly, carelessly, and negligently operate her motor vehicle that it struck Jeffrey A. Tittsworth's vehicle. This collision was proximately due to Robinson's violation of her duties as aforesaid. Stephanie N. Robinson was negligent in that, by way of enumeration and not limitation, she:

- a) failed to keep a proper lookout;
- b) exceeded a reasonable speed under the existing circumstances and conditions;
- c) failed to apply her brakes in time to avoid the collision;
- d) failed to give full time and attention to the operation of her vehicle;
- e) failed to keep her vehicle under proper control;
- f) operated her vehicle in a reckless manner.

7. As a direct and proximate result of Stephanie N. Robinson's negligence, Jeffrey A. Tittsworth sustained serious and permanent injuries, has sustained permanent disability, deformity and loss of earning capacity; has been prevented from transacting his business; has lost wages; has suffered and will

continue to suffer great pain of body and mind; has incurred and will incur in the future hospital, doctors' and related bills in an effort to be cured of said injuries.

8. Trial by jury is demanded.

WHEREFORE, Jeffrey A. Tittsworth demands judgment against Stephanie N. Robinson in the sum of ONE HUNDRED SEVENTY FIVE THOUSAND DOLLARS (\$175,000.00) and his costs expended in this matter.

Jeffrey A. Tittsworth
BY COUNSEL

Robert A. Niles

Robert A. Niles VSB# 3788
Carl N. Lauer VSB# 25362
Thomas H. Wilson VSB# 25156
Martin J. McGetrick VSB# 14654
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V I R G I N I A

IN THE CIRCUIT COURT OF STAFFORD COUNTY

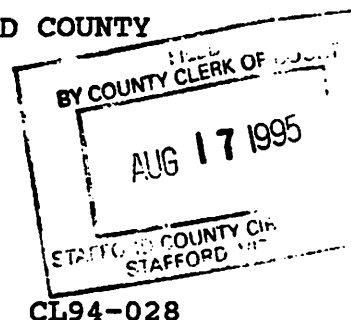
JEFFREY A. TITTSWORTH,

Plaintiff,

-vs-

STEPHANIE N. ROBINSON,

Defendant.



Fairfax, Virginia

Monday, March 6, 1995

Deposition, de bene esse, of

DONALD G. HOPE, M.D.

a witness, called for examination by counsel on behalf of the Plaintiff, pursuant to notice, in the office of Dr. Donald G. Hope, 3016 Williams Drive, Fairfax, Virginia, beginning at approximately 1:49 o'clock p.m., before Paul Sale, video operator, and Kathleen M. Elias, a Certified Verbatim Reporter and a Notary Public in and for the State of Virginia at Large, when there were present on behalf of the respective parties:

For the Plaintiff:

DENNIS AHEARN, ESQUIRE
Chandler, Franklin & O'Bryan
613-A Jefferson Davis Highway
P.O. Box 1340
Fredericksburg, Virginia 22042

For the Defendant:

CARLA H. THOMAS, ESQUIRE
C. JAMES WILLIAMS, ESQUIRE
4461 Cox Road, Suite 210
P.O. Box 3960
Glen Allen, Virginia 23058-3960

* * * * *

C O N T E N T S

<u>WITNESS</u>	<u>DIRECT</u>	<u>CROSS</u>	<u>REDIRECT</u>	<u>RECROSS</u>
Donald G. Hope, M.D.	4	26	31	--

* * * * *

E X H I B I T S

FOR IDENTIFICATION

Plaintiff's Exhibits Nos. 1 through 9 (medical bills)	3
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P R O C E E D I N G S

MR. AHEARN: Would you mark these as exhibits, please?

(The documents referred to above were marked Plaintiff's Exhibits Nos. 1 through 9, inclusive, for identification.)

MR. SALE: May it please the Court, ladies and gentlemen of the jury, my name is Paul Sale, and I'm the video operator and producer. My business address is 2060 North 14th Street, Arlington, Virginia, area code 703, 527-5100.

Today is Monday, March the 6th, 1995. The time is 1:49 p.m. We're about to take the deposition of Donald G. Hope, M.D., who is a witness in the matter of Jeffrey A. Tittsworth, Plaintiff, versus Stephanie N. Robinson, Defendant, Law Number CL94-028 in the Circuit Court for Stafford County.

The deposition is being taken on behalf of the Plaintiff, who is represented by Dennis A. Ahearn of the law firm of Chandler, Franklin & O'Bryan of Fredericksburg. The Defendant is represented by Carla H. Thomas of the law offices of C. James Williams of Glen

1 Allen, Virginia.

2 The deposition is being taken in the offices
3 of Dr. Hope, which is located at 3016 Williams Drive,
4 Fairfax, Virginia.

5 At this time would counsel please introduce
6 themselves?

7 MR. AHEARN: My name is Dennis Ahearn. I'm
8 counsel for Jeffrey Tittsworth.

9 MS. THOMAS: My name is Carla Thomas. I'm
10 counsel for Stephanie Robinson. Sitting to my left is my
11 co-counsel, Jim Williams, who is also counsel for Ms.
12 Robinson.

13 MR. SALE: Would the court reporter please
14 swear the witness?

15 Whereupon

16 DONALD G. HOPE, M.D.
17 a witness, was called for examination by counsel on behalf
18 of the Plaintiff, and, after having been duly sworn by the
19 Notary Public, was examined and testified, as follows:

20 DIRECT EXAMINATION

21 BY MR. AHEARN:

22 Q Dr. Hope, what is your occupation?

23 A I'm a neurological surgeon.

1 Q And where do you practice?

2 A 3016 Williams Drive in Fairfax, Virginia.

3 Q And how long have you been practicing?

4 A Approximately six and a half years.

5 Q And how long have you been at that location?

6 A Six and a half years.

7 Q Where did you do your undergraduate studies?

8 A I went to Villanova University for my
9 undergraduate studies, and then I went to the University
10 of Maryland in Baltimore, completing that in 1982. I then
11 went to the George Washington University for a residency
12 in neurologic surgery.

13 Q And from what school is your medical degree?

14 A University of Maryland.

15 Q And when did you serve your residency?

16 A From 1982 to 1988.

17 Q And that was where again?

18 A That was at George Washington University, in
19 neurologic surgery.

20 Q And in the course of your studies and
21 residency, did you specialize in any particular field of
22 medicine?

23 A Neurologic surgery.

1 Q And do you have any certifications in that
2 specialty?

3 A I am certified by the American Board of
4 Neurologic Surgeons, in 1991.

5 Q And do you have any associations with any
6 hospitals?

7 A I am on active staff at Fair Oaks Hospital,
8 Fairfax Hospital and Reston Hospital.

9 Q And do you hold any positions with any of
10 those hospitals?

11 A I'm the Section Chief of Neurologic Surgery at
12 Fair Oaks Hospital and the Vice Chairman of the Department
13 of Surgery at Reston Hospital.

14 Q And do you have any other memberships or
15 voluntary affiliations medically related?

16 A I am a member of the American College of
17 Surgeons, the American Association of Neurologic Surgeons,
18 and the Congress of Neurologic Surgeons. I have a
19 membership in the Medical Society of Virginia and the
20 Fairfax Medical Society.

21 Q And as a neurosurgeon do you actually perform
22 surgical procedures?

23 A Yes, I perform neurologic procedures on the

1 spine and brain.

2 Q And what is the scope of the specialty of
3 neurosurgery?

4 A Treat a combination of disorders in the brain
5 and nervous system, consisting of brain tumors, trauma to
6 the brain, cervical spine, lumbar spine and thoracic spine
7 injuries, such as fractures or different types of injuries
8 such as sprains and muscular injuries or possibly cervical
9 or lumbar disc herniations.

10 Q Did there come a time, Doctor, that you met
11 Jeffrey Tittsworth, the plaintiff in this case?

12 A Jeffrey Tittsworth came to my office on
13 February 26 -- correction -- February 22nd, 1993.

14 Q And how did he come to your office?

15 A He was referred by an orthopedic surgeon whose
16 name, I believe, is Dr. Antoun, A-n-t-o-u-n.

17 Q And at that time did you take a history from
18 Mr. Tittsworth?

19 A Yes, I did.

20 Q And was there anything of significance that he
21 related to you in that history?

22 A He stated that he had been having leg pain for
23 several weeks, which started almost immediately after a

1 rear-end car accident where he was stopped at a stop sign.
2 He had had the back pain and leg pain since that time.

3 He said that he had not been able to perform
4 the usual functions that he enjoys, such as playing golf
5 and other sports, and he was barely able to go to work
6 because of the pain.

7 Q Did he describe the nature of the pain to you
8 or the location of that pain?

9 A The pain was what we refer to as radicular
10 pain, which is pain that goes down the back of his leg and
11 into what's called the S1 nerve root distribution, which
12 typically is in the ankle and heel.

13 Q Did you conduct any type of physical
14 examination of him at that time?

15 A I examined him, and the examination showed an
16 absent reflex at the ankle, as well as some difficulty
17 walking on his toes on the left side. He had some muscle
18 spasm in the back, as well as some tenderness along the
19 sciatic nerve course in the left buttocks.

20 Q Did this history and the symptoms and the
21 examination indicate anything to you in terms of a problem
22 that Mr. Tittsworth was suffering?

23 A The combination indicated that he most

1 probably had a ruptured disc at the L5-S1 level in the
2 lower lumbar spine on the left side.

3 Q Did you do anything further to verify that
4 diagnosis?

5 A He had brought with him an MRI scan, which is
6 an imaging scan of the lumbar spine, which showed what I
7 read to be a free fragment or torn disc herniation at L5-
8 S1 on the left side.

9 Q And, Doctor, where is the L1-S5 [sic] location
10 on the back?

11 A The L5-S1 location is all the way down at the
12 bottom of the spine near the tailbone.

13 Q And is there anything significant about that
14 particular combination of discs that distinguishes it from
15 most of the others in the spine?

16 A The lower lumbar spine, consisting of both
17 the L4-5 disc and the L5-S1 discs, are very susceptible
18 to trauma because they serve as the area of the most --
19 what's probably the most leverage that occurs in the
20 spine.

21 When you flex or extend your back or rotate
22 your spine, those areas are under a tremendous amount of
23 mechanical force.

1 Q And would you explain to the jury, please,
2 Doctor, what the disc does in the spine -- what a disc
3 does in the spine?

4 A The disc is a joint between vertebrae or
5 vertebral bodies. It is a joint that both holds the two
6 vertebrae together and also cushions shock or forces
7 between those two -- between those vertebrae.

8 Q And what is the disc composed of, what type of
9 material?

10 A It's cartilage similar to what's in the tip of
11 your nose or your ear -- ear lobes.

12 Q And that piece of cartilage, the disc, sits
13 between two vertebrae; is that correct?

14 A That's correct.

15 Q And what is the cause -- in Mr. Tittsworth's
16 case what was the concern about the disc between his L5
17 and S1 vertebrae?

18 A The disc had torn or ruptured, similarly
19 to if you tear a fingernail or tear a cartilage in your
20 knee, and that was causing pain along the S1 nerve root
21 distribution going down into his leg, from direct
22 compression of the nerve by the disc fragment.

23 Q Okay -- now, how would a disc fragment affect

1 a nerve in that area?

2 A Discs are in close apposition to the nerves as
3 they traverse through the spine and exit to enter the
4 buttocks and traverse down to the leg, so that when a disc
5 tears or ruptures it can -- and in this case did -- press
6 directly up against the nerve at that location.

7 Q So, the pain that a patient feels, in this
8 case Mr. Tittsworth, is not so much from the ruptured disc
9 itself but from its pushing on the nerve; is that correct?

10 A That is certainly what I believe, yes.

11 Q And did Mr. Tittsworth -- or did you inquire
12 of the Plaintiff whether or not he had had any previous
13 history of back problems?

14 A Yes. He told me he had not had problems with
15 his back before. We ask the patients to fill out a sheet
16 if they've been involved in an accident or work-related
17 injury, and he also did not mention anything on that
18 sheet.

19 Q Now, as a result of your examination, your
20 review of the medical studies that were done, you made a
21 determination that he was suffering from this ruptured
22 disc, correct?

23 A Correct.

1 Q Do you have an opinion -- and did you have an
2 opinion at that time -- as to what the cause of that
3 injury was?

4 A It's my opinion that the cause of the injury
5 was this car accident that he suffered approximately three
6 to four weeks before he came to see me.

7 Q And what are the factors that you look to,
8 Doctor, to support an opinion that it was this accident
9 that caused the injury he was suffering?

10 A He has a lack of preexisting pain, he then
11 suffered the injury; the pain, according to the patient,
12 started immediately after that injury; he had a very
13 clear-cut pain syndrome relating to the disc that was
14 found on the scan, and the disc could easily have been
15 herniated at the time of that accident.

16 Q Now, Mr. Tittsworth did tell you that the
17 accident was not a severe one, did he not?

18 A Correct.

19 Q In fact, how did he describe it to you?

20 A He said -- what I wrote on my note was,
21 "Although he notes that the accident was minor, he states
22 that he immediately began having back pain and this
23 immediately progressed to left-leg numbness and pain."

1 So, he mentioned that it was minor.

2 Q Does the fact that it was a minor accident, as
3 he related, give any concern that it could not have been
4 the accident that caused it -- with the other symptoms
5 that he's reported?

6 A When taken with regard to the whole picture,
7 no, it does not concern me.

8 Q In your experience, how much force does it
9 take to cause a rupture of a disc like this?

10 A It doesn't have to take much force. Two
11 things come to mind. One is that a cough or a sneeze
12 could easily precipitate this and, in many of my patients,
13 has in the past been the, quote, "immediate cause", end
14 quote, of the herniation.

15 Secondly, because of the location of this
16 disc, just the normal biomechanical factors that a person
17 goes through or strains that he goes through with
18 standing, sitting, rotating from side to side without any
19 trauma can cause rupture of this disc.

20 Q Now, in the diagnostic reports, there was a
21 reference in one of the reports to some disc degeneration
22 or something like that.

23 Do you recall that reference?

1 A I'm going to have to take a look here.

2 (The witness referred to some documents.)

3 On the 2-4-93 MRI report from Tysons Imaging
4 Center, it says under the impression -- I'm sorry -- it
5 says under the findings, "The signal intensity of the L5-
6 S1 disc is diminished, indicative of disc degeneration."

7 Q What does that mean, Doctor?

8 A As we get older -- and older, unfortunately,
9 is twenty-five, thirty and above -- the discs, especially
10 at the lower level in the lumbar spine and in other levels
11 of the spine, fairly specific levels, lose their water
12 content, become dried out and desiccated and become more
13 susceptible to injury. It's similar to a bicycle tire
14 that's been left out in the rain or the ice and snow and
15 sun for several years. It gets a dry rot type of
16 consistency.

17 Q Is there any concern that you would have that
18 it is that degenerative condition in Mr. Tittsworth's
19 spine that was the cause of his symptoms?

20 A Again, that's not a concern to me. That's a
21 common finding in people his age.

22 Q After you made the determination that he had a
23 herniated disc at the L5-S1, what was it that you proposed

1 to him as treatment for this?

2 A Because of the weakness in his foot, I
3 proposed that we move ahead with what's called a
4 microdiskectomy -- or, in layman's terms, a lumbar
5 laminectomy.

6 Q Is this a surgical procedure?

7 A A surgical procedure to remove the fragment of
8 the disc that's torn.

9 Q And did you explain to him the risk factors
10 and the ins and outs of going through this procedure?

11 A Yes, I did.

12 Q And could you tell the jury in general some of
13 the risks that you normally advise a patient of in this
14 type of procedure?

15 A There's a risk of tearing a major artery in
16 the spine or in the abdomen, a risk of injuring a bowel.
17 There's a risk of nerve root injury or injury to multiple
18 nerve roots. Those fall within about a risk -- a rate of
19 approximately one in five thousand. There's a risk of
20 infection, which is approximately one in three hundred.

21 The risk of recurrence, meaning that another
22 piece could fragment in the back at that level at any
23 time, is about five or six percent, and ultimately the

1 risk of failure, meaning that he or any patient does not
2 improve to the degree that they would like, is about four
3 to six percent.

4 Q And did Mr. Tittsworth elect to have this
5 procedure --

6 A Yes.

7 Q -- after you discussed it with him?
8 And when was the surgery done?

9 A I performed surgery on him on February 26th,
10 1993.

11 Q Did he have to go into the hospital for this
12 surgery?

13 A Yes, he did.

14 Q And would you please explain to the jury
15 briefly, if you would, the nature of the surgical
16 procedure that you performed on him?

17 A The patient, in this case Mr. Tittsworth, is
18 placed on their stomach, the back is exposed and painted
19 with a very high concentration of iodine called betadine.

20 A small incision, approximately two inches
21 long, is made in the back, and then with fiberoptics and
22 microsurgical instruments such as loops or a microscope
23 the muscle is taken off of the spine.

1 A small hole is made in the spine, called a
2 laminotomy, and the nerve root then becomes fairly
3 immediately visible. It's moved aside, and the piece of
4 fragment removed from adjacent to the nerve root.

5 Q Now, you say a piece of the fragment.

6 This is of the disc itself?

7 A I'm sorry -- the -- yes, the -- any of the
8 fragments or loose bodies in that area are removed.

9 Q Okay -- and these are from the damaged disc.

10 A Correct.

11 Q You don't remove the -- or didn't remove the
12 entire disc in this procedure, did you?

13 A Correct, I did not.

14 Q Okay.

15 Why did you not have to remove the entire
16 disc?

17 A As we talked about before, many -- most people
18 at his age have a degenerative condition at that disc
19 anyway. That's not a particularly -- that's not known to
20 be a painful condition in and of itself.

21 It's only when the disc tears or ruptures,
22 that a piece of that disc is actually abutting the nerve
23 root, that one gets pain.

1 The goal is to remove that piece and leave the
2 person with as much of that disc as possible to continue
3 to do its function, which is, again, cushioning and
4 holding that joint together.

5 Q Can you say, say, in percentage what amount of
6 that disc you had to remove?

7 A Probably twenty percent.

8 Q And what's the condition -- what would be the
9 condition of the remainder of the disc that you left
10 behind?

11 A It remains degenerative, and it typically acts
12 as a pretty good cushion and a stabilizing part of that
13 joint.

14 Q And how did Mr. Tittsworth tolerate the
15 surgery?

16 A I saw him again postoperatively, referred him
17 for physical therapy. I saw him --

18 (The witness referred to a document.)

19 It looks like I saw him twice postoperatively.
20 He had started physical therapy on April 22nd. He was
21 complaining a little bit -- he was complaining of some
22 pain, but this was mostly in his buttock and his back. He
23 was not complaining of the leg pain. At that point I

1 encouraged him to continue the physical therapy.

2 Q Did you recommend the physical therapy?

3 A Yes, I did.

4 Q And why do you do that? Or, in this case why
5 did you believe he should do some therapy?

6 A The prescription for therapy comes out of the
7 belief that a stabilization program of exercises will help
8 increase their resistance to reherniation in the future
9 and increase -- certainly increase their resistance to
10 back pain in the future from muscle injury or muscle
11 straining.

12 Most patients also need it because they need
13 a fair amount of stretching activity after the actual
14 surgery.

15 Q Doctor, if you would for a moment, after this
16 type of operation what are the concerns that you would
17 have for Mr. Tittsworth down the road, in particular, say,
18 that cause you to recommend physical therapy?

19 A Many patients are tentative and require
20 someone to push them into an exercise program so that they
21 maintain as good or better spinal alignment and muscular
22 strength than you or I would need to because they've had a
23 surgery on their spine.

1 That's as it relates to the therapy. Again,
2 in terms of recurrences or recurrence rates, the therapy
3 does not have a big impact on them.

4 Q So, is the therapy mostly a postoperative
5 necessity, if you will -- because of the operation -- or
6 is it --

7 A In patients --

8 Q -- also --

9 A I'm sorry.

10 Q -- also related to the nature of that surgery
11 that you did, that is, removing part of the disc?

12 A It's mostly a continuation of the process,
13 which is removal of the pain and then getting the patient
14 rehabed after -- after a back injury.

15 Q What would be the concerns for Mr.
16 Tittsworth -- what would have been -- if he had not had
17 the surgery?

18 A Most patients don't tolerate their pain
19 particularly well, although after several years some
20 patients might tolerate the pain, and the pain may settle
21 down.

22 My biggest concern was his foot weakness
23 and the fact that if I waited several months perhaps and

1 he then decided to have surgery, the nerve would be
2 irreparably damaged prior to the surgery and we would not
3 be able to get good recovery of the foot strength, so that
4 my biggest concern and the reason that pushed me to move
5 ahead was the foot weakness.

6 Q Now, his physical therapist reported to you
7 that part of the therapy he was doing was what he called
8 lumbar stabilization and strengthening programs.

9 What is it that this does for the patient?

10 A Again, I've made an incision, albeit hopefully
11 small, in their musculature. Most patients get some pain
12 from that over the next several months.

13 The stabilization exercises are to push them
14 through that pain, get them stretching exercises through
15 that pain, and then essentially overcompensate for the
16 fact that they've had an incision in that area. So,
17 they've got to restrengthen or overstrengthen those
18 muscles to presumably at six months be on a normal, even
19 keel.

20 Q Looking down the road for Jeffrey at this
21 point in time, what concerns do you have for his future as
22 a result of having suffered this injury and requiring this
23 surgery?

1 A The only major concern is that -- again,
2 approximately five to six percent of people recur, meaning
3 they tear the fragment again, and would require a
4 subsequent surgery.

5 Minor concerns -- there is a very small
6 percentage of patients that go on to a chronic pain
7 syndrome, but that is quite low.

8 Q Does he still continue to suffer some pain as
9 a result of this, and is that consistent with this type of
10 injury?

11 A To the best of my knowledge, there are -- he
12 was having some pain at the end of therapy and some pain
13 at the end -- when I had seen him. A minor amount of pain
14 is fairly common with any sports injury, even after a good
15 rehab.

16 Q Now, Mr. Tittsworth reported to you that he
17 was active to an extent in sports, bowling and golf --

18 A Correct.

19 Q -- jogging.

20 Is there any concern that you would have for
21 his continuing those types of activities?

22 A I would have minimal concern with that. In
23 other words, my goal would be that the surgery should

1 allow him to move on to those activities without much
2 problem.

3 Q But he would still have the greater risk that
4 you spoke of, of a re-injury?

5 A That greater risk of reherniation clearly is
6 five percent.

7 Q Doctor, Mr. Tittsworth lost five and three-
8 eighths days of work as a result of this injury.

9 In your opinion, in your medical opinion, is
10 that a reasonable amount of time for him to have lost from
11 work?

12 A Yes and no. Most patients lose two to three
13 weeks. He seemed very well motivated at the time and
14 wanted to go back very quickly. So, five to six days is
15 actually an inordinately short amount of time.

16 Q And, Doctor, have you had an opportunity to
17 review the treatment and the medical records of the other
18 health care providers, particularly the doctor that
19 referred him to you, the MRI studies and the x-rays?

20 A Yes, I have.

21 Q And have you reviewed the bills for all the
22 charges that Mr. Tittsworth incurred in conjunction with
23 treatment for this injury?

1 A Yes, what I've had available to me.

2 Q Okay -- I'd ask you if you'd please look at
3 Exhibit No. 1 and tell us which bill that is?

4 A This appears to be a statement of account or a
5 bill from Fair Oaks Hospital. This would have been the
6 account from the actual surgical admission.

7 Q And I'd ask you if you'd go through them in
8 sequence, Doctor, and then I'll ask you a concluding
9 question. But there are nine exhibits there, and if you
10 could identify them each.

11 A Number 2 is the bill for what look to be three
12 office visits from Ruben T. Benito, B-e-n-i-t-o, who is an
13 orthopedic surgeon. These were visits prior to seeing me.

14 Q And the next one?

15 A A bill from Dr. Antoun -- Adel Antoun --
16 A-d-e-l, A-n-t-o-u-n, a bill for what would appear to be
17 two office visits prior to seeing me. He is also an
18 orthopedic surgeon.

19 Q Okay -- and the next bill?

20 A A bill for my services, which are an office
21 consultation plus service of the diskectomy.

22 Q And that's Exhibit No. 4?

23 A Number 4.

1 Number 5 is -- (pause) --

2 Q It should be Northern Virginia Radiology.

3 A Correct, Northern Virginia Radiology and
4 Nuclear Medicine, Inc., a bill for a lumbar spine series,
5 which are plain x-rays.

6 The next is Exhibit No. 6, which is an MRI
7 scan bill from Tysons MRI Medical Center. Exhibit No. 7
8 is from Fair Oaks Anesthesia Associates for the anesthetic
9 delivered during the surgical procedure.

10 Exhibit No. 8 is a bill for physical therapy
11 visits from Center for Orthopedic and Sports Physical
12 Therapy. The dates are listed in here for the visits,
13 which all look to be after my surgery.

14 Exhibit No. 9 is for Giant Discount Drug. It
15 looks like a group of prescriptions dating from just about
16 the time of the accident in 1993 to 5-21-93, and all of
17 these are anti-inflammatory medications or pain
18 medications or something that would relate to a back
19 injury.

20 Q In your opinion, Doctor, are the charges that
21 are represented by these bills -- were they services that
22 were necessary for the treatment of this injury?

23 A Yes.

1 Q And are the charges reasonable charges?

2 A Yes.

3 Q And were all the treatments indicated there
4 the result of the injury?

5 A Yes.

6 Q The opinions that you have given in this
7 testimony, Doctor, your medical opinions, are they all to
8 a reasonable degree of medical certainty?

9 A Yes, they are.

10 MR. AHEARN: I have no further questions,
11 Doctor. Thank you very much.

12 CROSS EXAMINATION

13 BY MS. THOMAS:

14 Q Doctor, my name is Carla Thomas. Good
15 afternoon.

16 A Good afternoon.

17 Q Doctor, you've expressed the opinion here
18 today that the accident which is the subject of this
19 lawsuit caused the injuries Mr. Tittsworth -- or, rather,
20 caused the surgery you performed on Mr. Tittsworth.

21 Is that correct?

22 A Yes.

23 Q And it caused the specific injury which

1 necessitated the surgery, a herniated disc.

2 Is that correct?

3 A That's correct.

4 Q Doctor, you didn't see the accident, though,
5 did you?

6 A That is correct.

7 Q And though Mr. Tittsworth described the
8 accident to you as minor, you were relying on what Mr.
9 Tittsworth told you about the accident when you concluded
10 that the accident caused his pain which caused the injury,
11 correct?

12 A I was relying on his history, correct.

13 Q My question was, you were relying on what Mr.
14 Tittsworth told you about the specifics of the accident,
15 were you not?

16 A In terms of what I know about the accident?
17 Is that your question?

18 Q Yes.

19 A I've heard from Mr. Tittsworth that it was
20 minor, yes.

21 Q He told you that it was minor and relatively
22 nothing else specific about the accident, though.

23 Isn't that true?

1 A All I -- what he told me was it was a rear-end
2 collision, at a stop sign, that was minor, yes.

3 Q All right, sir.

4 Doctor, you do not have any specific training
5 in the field of biomechanical engineering, do you?

6 A No, I do not.

7 Q So, you did not conduct, for example, a
8 G-force analysis on the dynamics of the accident, did you?

9 A That is correct.

10 Q And you're not rendering an opinion as to the
11 G-force experienced by Mr. Tittsworth in the accident, are
12 you?

13 A No, I'm not.

14 Q Sir, you've expressed that sneezing or
15 coughing or turning around might herniate a disc; is that
16 right?

17 A That is correct.

18 Q Is it also possible that those motions would
19 cause a previously asymptomatic herniated disc to become
20 symptomatic?

21 A That is correct.

22 Q Could running do those things as well?

23 A Running could herniate a disc, yes.

1 Q Could running on one particular occasion do
2 those things?

3 A Yes.

4 Q Doctor, isn't it so that the most minimal
5 force that you know of which could herniate a disc is the
6 act of getting up out of bed in the morning?

7 A That is certainly a minimal force, yes -- that
8 could cause it, yes.

9 Q Is not that the most minimal force you can
10 think of that you've seen in your years of practice to
11 have herniated a disc?

12 A Yes.

13 Q And would that not also, then, be the most
14 minimal force that you can think of that would cause a
15 previously herniated disc which was asymptomatic to become
16 symptomatic?

17 A Sure, yes.

18 Q Sir, did you know Mr. Tittsworth before you
19 treated him professionally?

20 A No, I did not.

21 Q Did you know Mr. Ahearn before you treated Mr.
22 Tittsworth professionally?

23 A I don't believe so, no.

1 Q Have you ever worked with Mr. Ahearn before on
2 a case?

3 A I don't think I have, no.

4 Q Have you ever worked with Mr. Ahearn's firm on
5 a case?

6 A I'm pretty sure I've not, no.

7 Q Have you previously testified in plaintiffs'
8 personal injury cases?

9 A Yes.

10 Q How many times have you testified?

11 A Less than a half dozen.

12 Q And were you compensated for your time during
13 your testimony on those matters?

14 A I'm sure I was.

15 Q Are you being compensated here today for your
16 time and your testimony?

17 A I'm sure I am.

18 Q The degenerative disc disease which you
19 mention Mr. Ahearn had during -- I'm sorry -- which you
20 mentioned Mr. Tittsworth had -- during Mr. Ahearn's
21 questioning, did not that degenerative disc disease
22 predate the accident in question?

23 A Yes, it did.

1 Q Were you aware when you performed this surgery
2 on Mr. Tittsworth that he had a family history of
3 arthritis?

4 A No.

5 Q You were not aware that both his mother and
6 father had a history of arthritis?

7 A No, I was not.

8 Q Were you aware that Mr. Tittsworth was a
9 runner?

10 A He had mentioned golf and tennis. I'm not
11 sure he mentioned running to me.

12 MS. THOMAS: Thank you, Doctor. I have
13 nothing further.

14 REDIRECT EXAMINATION

15 BY MR. AHEARN:

16 Q Doctor, just to follow up --
17 Would the history of family -- family history
18 of arthritis have any significant bearing on your opinions
19 that you've given in this testimony?

20 A No.

21 MR. AHEARN: No further questions. Thank you.

22 - - - - -

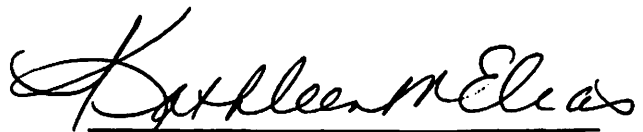
23 (Whereupon, at approximately 2:22 o'clock

1 p.m., the signature of the witness having been waived, the
2 witness being present and consenting thereto, the taking
3 of the deposition was concluded.)

4 * * * * *

5 CERTIFICATE OF NOTARY PUBLIC

6 I, Kathleen M. Elias, the officer before whom
7 the foregoing deposition was taken, do hereby certify that
8 the witness whose testimony appears in the foregoing
9 deposition was duly sworn by me; that the testimony of
10 said witness was taken by me stenographically and that I
11 thereafter reduced it to typewriting; that said deposition
12 is a true record of the testimony given by said witness;
13 that I am neither counsel for, related to, nor employed by
14 any of the parties to the action in which this deposition
15 was taken; and further, that I am not a relative or
16 employee of any attorney or counsel employed by the
17 parties thereto; nor financially or otherwise interested
18 in the outcome of the action.

19 

20 KATHLEEN M. ELIAS, CVR-CM
21 Notary Public in and for the
22 State of Virginia at Large.

23 My commission expires:
August 31, 1996

CLERK
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VIRGINIA:

IN THE CIRCUIT COURT OF THE COUNTY OF STAFFORD

BY CLERK

AUG 22 1995

STAFFORD COUNTY COURT

CA# CL94-028

JEFFREY TITTSWORTH

vs.

STEPHANIE ROBINSON

March 17 & 20, 1995

Stafford, Virginia

ORIGINAL

Partial transcript of testimony by Jeffrey A. Tittsworth,
 Michael Mastrostesano, Stephanie N. Robinson, Janet L. Rowe,
 Alfred L. Cipriani, Peter H. Abbrecht, and Judge's
 instructions to the jury heard before The Honorable Carleton
 Penn, III, Judge, and jury.

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Carleton Penn
Judge Designate

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I N D E X

	DIRECT	CROSS	REDIRECT	RECROSS
Jeffrey A. Tittsworth	4	41		
Michael Mastrotesano	57	63		
Stephanie Robinson	69	74	76	
Janet L. Rowe	77	78	79	
Alfred L. Cipriani	80	99	111	114
Peter H. Abbrecht	117	136		
Jeffrey A. Tittsworth (rebuttal)	146	150		

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E X H I B I T S

PAGE

P1-9	31
Medical Bills	
P10	32
Summary of Medical Bills	
P11	36
Photographs	
Defendant's A, B, C, D, F, G, H	51
Photographs	
Defendant's E	72
Photograph	

1
2
3 JEFFREY A. TITTSWORTH, the plaintiff, first being duly
4 sworn, testified as follows:
5

6 DIRECT EXAMINATION

7 BY MR. AHEARN:
8

9 Q Would you please tell the jury your full name and
10 where you currently reside.

11 A Jeffrey Allen Tittsworth, and I live at 8 Ruffian
12 Drive in Stafford.

13 Q Where were you born, Mr. Tittsworth?

14 A Waukegon, Illinois.

15 Q Where did you grow up?

16 A In Dixon, Illinois.

17 Q When did you come to this part of the world?

18 A 1980.

19 Q What brought you here?

20 A Job opportunity.

21 Q Are you employed?

22 A Yes.

23 Q What type of work do you do?

24 A I'm a systems analyst.

25 Q What educational background do you have for your

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1 work?

2 A Aeronautical engineering.

3 Q Do you have any type of degree beyond high school?

4 A Yes, I have a bachelor's degree in aeronautical
5 engineering.

6 Q Where did you earn that?

7 A University of Illinois.

8 Q How old are you now, Mr. Tittsworth?

9 A Thirty-six.

10 Q Your wife died recently, did she not?

11 A Yes.

12 Q When was that?

13 A Just a couple days before Christmas.

14 Q How long had you been married?

15 A Almost ten years.

16 Q Your current job position, with whom do you work?

17 A I work for the Mita Corporation in McLean, Virginia.

18 Q What do you do for them?

19 A As a systems engineer I support -- they work with
20 the FAA. The FAA puts together the air traffic control system
21 that we all use when we fly. I make sure when they use pieces
22 of equipment, when they operate they work well together.

23 Q Do you spend a lot of time doing field work opposed
24 to office work or office work opposed to field work?

25 A More office work than field work.

1 Q In an average day, how much time do you spend in the
2 office and what type of physical activities are you doing in
3 the office?

4 A In my office probably six and a half hours out of
5 nine, I do desk work, note taking, and calculations. I'll
6 work on a computer.

7 Q When you work on a computer, what are you basically
8 doing?

9 A Writing, so I'm doing documentation, typing.

10 Q Mr. Tittsworth, in recent years, have you had any
11 hobbies or activities that you tend to enjoy?

12 A Yes.

13 Q What have those been?

14 A I've been an avid runner for a while. I've bowled
15 ever since I was married, archery, golf. I've been golfing
16 probably for eight years.

17 Q When did you start running?

18 A Off and on from high school, but basically ever
19 since I came here. I had to run to sort of keep my weight
20 down, so about the last 10 years, 15 years.

21 Q When you say you are an avid runner, what does that
22 mean to you? Why do you use that to describe yourself?

23 A It's something I really enjoy I guess. It's not a
24 labor. I ran about two or three times a week, two to three
25 maybe four miles each time.

1 Q Did you run all seasons of the year?

2 A Yes.

3 Q You mentioned that you used to bowl with your wife.

4 Did you take up bowling after you were married?

5 A Yes.

6 Q Why did you do that?

7 A It was something we could together. It was
8 something she was a lot better at than me, too.

9 MR. WILLIAMS: Judge, I'm going to object because
10 we've been hearing a lot about the death of his wife, and
11 I don't believe the plaintiff contends that Ms. Robinson
12 had anything to do with your wife. We're certainly all
13 sympathetic to that, but I'll object to that repeatedly
14 coming into evidence in opening statements and twice now
15 on direct.

16 MR. AHEARN: Your Honor, I bring it up only because
17 without that information, it becomes a bit confused
18 later on when we're talking post accident up to the
19 present time and she's not present.

20 THE COURT: I sustain the objection. Jury will
21 disregard.

22 Q How often did you bowl when you bowled?

23 A Two or three times a week.

24 Q For how long a period of time?

25 A Each bowling session?

1 Q Yes, each time you bowled.

2 A Two or three hours.

3 Q Did you bowl on a league?

4 A Yes.

5 Q What about golfing, how often did you engage in
6 golfing?

7 A Couple times a week. I tried to do it on both
8 Saturdays and Sundays.

9 Q Mr. Tittsworth, on January 13, 1993 was that a
10 workday?

11 A Yes, it was.

12 Q Would you tell the jury what your normal course of
13 commuting to work is. How do you get there?

14 A On the way there or on the way back?

15 Q Both.

16 A I leave from Garrisonville. I pick up some riders
17 and drive to the McLean, Virginia area, get there about 6:30
18 in the morning. And about 4 o'clock in the afternoon I do the
19 reverse.

20 Q That evening when you came back from work, did you
21 have any passengers with you?

22 A Yes, I did.

23 Q Who were they?

24 A Diane Woodall. Are you looking for specific names?

25 Q If you remember.

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1 A Diane Woodall, Robin Raider. There was probably a
2 couple others. I rotated through a number of people as the
3 years have gone on.

4 Q Where did you go once you got back down in this
5 area?

6 A I picked them up in the morning or dropped them off
7 in the parking lot by People's Drug, which is right next door
8 to the Brafton Shopping Center.

9 Q On the evening of the 13th of January 1993, did you
10 drop people off in that shopping center?

11 A Yes, I did.

12 Q Whereabouts in the shopping center did you drop them
13 off?

14 A Route 610. The shopping center is parallel to 610
15 towards the road, not close to the building, but basically
16 where they allow commuters to park.

17 Q Then what happened?

18 A I dropped them off and was about to pull out of the
19 parking lot onto sort of a side road between Brafton Shopping
20 Center and People's Drug, I think it's called Brafton
21 Boulevard. I stopped at the stop sign, was going to turn
22 right to get back on 610, and was hit from behind.

23 Q As you were stopped at the stop sign, what were you
24 waiting for? Why were you stopped?

25 A There was a stop sign there, so I stopped and made

1 sure traffic would allow me to turn right on Brafton
2 Boulevard.

3 Q At the instant just before or at the instant of the
4 impact, where were you looking?

5 A I was again looking to the left just to make sure my
6 path was clear.

7 Q You were in the driver's seat?

8 A Yes.

9 Q Did you have your seat belt on?

10 A Yes, I did.

11 Q How were you seating? How was your body?

12 A I was leaning forward slightly so I could look
13 beyond my left rear view mirror.

14 Q What do you recall happening?

15 A I felt being pushed forward. It felt like I was
16 being hit from behind. I kind of went back into the seat.

17 Q Then what happened next?

18 A I realized what had happened and decided to get out
19 and see what happened and how it happened and look at the
20 damage.

21 Q Tell the jury step by step starting with the very
22 next thing that happened after you got out of the car.

23 A I started walking back towards the back of my van.
24 I believe Ms. Robinson had come out at that time. She
25 apologized to me, said something about her foot slipping off

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1 the brake and asked me if I was okay.

2 Q What did you say to her?

3 A I said I thought I was and went back to examine the
4 damage.

5 Q When you say examine the damage, would you tell the
6 jury exactly what you did do and what you looked at.

7 A I just looked at the extent of the damage in the
8 back. I wanted to make sure -- because the first question is
9 could I drive away, and I could.

10 Q How did you make that determination?

11 A There wasn't anything being pushed up against the
12 wheels or anything like that.

13 Q Did you note any damage to the vehicle?

14 A Yes.

15 Q What did you note?

16 A My bumper was pushed in.

17 Q Any other damage that you noted at that time?

18 A No.

19 Q Did you look at her car?

20 A I might have.

21 Q Do you recall that you did or did not?

22 A I don't recall.

23 Q Did you observe the relative position of your car
24 after the impact as opposed to where it was before if you
25 could do that?

1 A I could only put it in this term, I felt like I was
2 pushed forward into the street. When I was stopped, I felt
3 like I was pushed into the street because of being hit from
4 behind.

5 Q Did you notice whether your Mazda, in fact, was
6 further beyond the stop sign than you thought it had been
7 before the impact?

8 A Yes.

9 Q About how much further?

10 A A couple feet I think.

11 Q Was the car actually into the street area?

12 A Yes.

13 Q It had not been there before the impact, correct?

14 A No.

15 Q What did you and Ms. Robinson do about the situation
16 at that time? What finally happened there?

17 A As I said, before I went back to make sure the car
18 was driveable, I got the feeling that I was in the way. There
19 was an exit to the parking lot on to that street and again I
20 was in the street. I asked her if we could back up and
21 discuss information after we got out of the way. So we both
22 got back into our cars, backed out, and just exchanged
23 information.

24 Q Did you say anything to her about the damage to your
25 car or whether it had damage or didn't have damage or what?

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1 A I said that the damage wasn't a sufficient size we'd
2 have to call the police. She assumed responsibility. I said
3 okay. We exchanged information to make sure I knew who I was
4 talking to, and we left.

5 Q The two of you agreed there was no reason to call
6 the police at that point?

7 A Yes.

8 Q What did you do next?

9 A I called my insurance company.

10 MR. WILLIAMS: Your Honor, I object. I'd like to be
11 heard outside the presence of the jury.

12 THE COURT: Jury will step outside, please.

13
14 (Jury out.)

15
16 THE COURT: Court will hear you, Mr. Williams.

17 MR. WILLIAMS: Your Honor, I move for mistrial on
18 the grounds plaintiff has improperly injected the issue
19 of insurance in this litigation.

20 THE COURT: Mr. Ahearn.

21 MR. AHEARN: Judge, my response is basically the
22 issue was already injected by counsel on voir dire when
23 she acquired about accidents, and the issue of insurance
24 came up. It's not as if the jury has not heard of the
25 word since we began this proceeding. In addition, I

1 believe the mention of it as a factual step in a process
2 is not significant and has no prejudicial impact on the
3 defendant's case in this situation.

4 THE COURT: Would you wish to be further heard?

5 MR. WILLIAMS: Yes, sir, Your Honor. I'd like to
6 point out in voir dire Ms. Thomas' question to the jurors
7 was has anyone made a claim against anyone. Her question
8 was not has anyone made a claim against an insurance
9 company. We're trying to distinguish between litigation
10 and non litigation. The juror that did mention insurance
11 was doing that out of her own volition. So the defense
12 did not intentionally waive the issue -- inject the issue
13 of insurance in this case. That was as a result to a
14 question to a juror that cannot solicit that particular
15 information.

16 THE COURT: Court will deny the motion for a
17 mistrial. The Court notes that the plaintiff was getting
18 in touch with his own insurance company. It is not the
19 defendant's insurance that has been mentioned. You may
20 have your objection to the adverse ruling, Mr. Williams.
21 Have the jury return, please. I take it the connection
22 in insurance is caution and just compound the error if
23 indeed there is one.

24 MR. WILLIAMS: Your Honor, could I solicit a new
25 ruling here before you bring the jury back in.

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1 THE COURT: Hold the jury just a moment. What was
2 it you said?

3 MR. WILLIAMS: I'd like to solicit an in limine
4 ruling from you before you bring the jury back in. Now
5 that the plaintiff has discussed the issue of his
6 insurance in this case, I would like to be given leave to
7 freely explore whether he received medical payments
8 coverage from Allstate Insurance Company because he's
9 waived that. If he's allowed to talk about his
10 insurance, then surely I can explore that issue with the
11 witness. I do not know as I stand her presently whether
12 he did receive med pay, but I reserve that right to ask
13 questions either at this point on direct or subsequently
14 to call the plaintiff as an adverse witness and explore
15 it in our case in chief.

16 THE COURT: I've denied a motion in mistrial. The
17 Court will not permit further inquiry concerning
18 insurance in this case. You may have your objection
19 again to the Court, sir.

20 MR. WILLIAMS: Yes, sir.

21 THE COURT: Proceed.

22
23 (Jury in.)

24
25 THE COURT: Proceed, Mr. Ahearn.

1 Q Mr. Tittsworth, following this accident, did you
2 have any physical problem?

3 A Yes, I did.

4 Q What were they?

5 A A couple hours after the accident I started to get a
6 little stiffness in my back that evening.

7 Q Whereabouts?

8 A My lower back, just before the tail bone.

9 Q Anything further?

10 A That evening, no. I woke up the next morning and it
11 was worse. It was more painful, a little more stiff. I had
12 difficulty getting out of bed.

13 Q Anything further develop?

14 A As the day progressed, I began getting some nerve
15 pinching in my back.

16 Q Would you describe what that felt like.

17 A Something like when you hit your elbow, funny bone,
18 the tingling sensation you get, the feeling you get.

19 Q Where did you get that?

20 A Left side of my spine, roughly level with my tail
21 bone but to the left.

22 Q What happened with that?

23 A It didn't get better through the day and it didn't
24 get better through the following day. So I called my primary
25 care physician and went to see him about it.

1 Q Who was this that you saw?

2 A Dr. Benito.

3 Q Did he examine you?

4 A Yes, he did.

5 Q Did he treat you or refer you on?

6 A He treated me. He prescribed an x-ray and gave me
7 some muscle relaxants and anti-inflammatory prescriptions.

8 Q What happened next?

9 A He wanted to treat it as a muscle pull. They said
10 that could cause the nerve pinching.

11 MR. WILLIAMS: Judge, I'm going to object to the
12 hearsay regarding --

13 THE COURT: Sustained. Jury disregard.

14 Q What did you do next after you saw Dr. Benito?

15 A I took the medications as he suggested. I took the
16 heat treatments he suggested, heat treatments and some rest.
17 I took that for a period of two weeks and went back to see
18 him.

19 Q When you saw him again, did he treat you or refer
20 you on?

21 A He referred me on.

22 Q To whom did he refer you?

23 A To Dr. Antoun.

24 Q What type of doctor is Dr. Antoun?

25 A He is an orthopedic surgeon.

1 Q Did you meet with Dr. Antoun?

2 A Yes, I did.

3 Q Did he treat you or refer you on?

4 A He took a look at the x-rays and told me that --

5 MR. WILLIAMS: Your Honor, I object.

6 THE COURT: Hearsay is inadmissible, Mr. Tittsworth.

7 Q What did you do after you saw him?

8 A He prescribed an MRI test for me.

9 Q Did you go have the MRI done?

10 A Yes, I did.

11 Q Did you return to him afterwards?

12 A Yes, I did.

13 Q Did he treat you at that point or did he refer you
14 on or do something else?

15 A He examined the MRI and offered his services to
16 perform the surgery.

17 Q Did you accept that offer?

18 A No.

19 Q Why did you not accept his offer?

20 A I certainly wanted a second opinion because I was
21 left with the feeling that surgery was necessary.

22 Q Where -- what area of your body was the surgery he
23 was proposing to you?

24 A Scrapes of the disk in my lower back just above my
25 tail bone.

1 Q Did you seek that second opinion?

2 A Yes, I did.

3 Q From whom did you seek it?

4 A From Dr. Hope.

5 Q Did Dr. Hope treat you or did he refer you on?

6 A He treated me.

7 Q When approximately did you see Dr. Hope?

8 A About four weeks after the accident.

9 Q Did Dr. Hope examine you?

10 A Yes, he did.

11 Q What type of things did Dr. Hope do in his
12 examination of you?

13 A He reviewed the MRI images and came to the
14 conclusion that I needed surgery.

15 MR. WILLIAMS: Your Honor, that's hearsay.

16 THE COURT: The fact he came to a conclusion is not
17 hearsay. Overruled. The conclusion would be hearsay.

18 Q As a result of his having reached a conclusion, did
19 you do anything further with him?

20 A I scheduled surgery.

21 Q What type of surgery was it that he was going to
22 perform on you as best you understood it?

23 A He called it a laminectomy where he would open me up
24 and scrape away the portion of the disk that was pushing
25 against my nerve.

1 Q What was your understanding of what the actual
2 problem was with your disk?

3 A That my disk was compressed and bulging out and
4 pressing against a nerve.

5 Q How soon after the decision to have this operation
6 was it scheduled?

7 A A week.

8 Q Was it Dr. Hope who did the surgery?

9 A Yes, it was.

10 Q Prior to the surgery, did you talk to Dr. Hope about
11 how it was going to proceed and what consequences it might be?

12 A Yes.

13 Q Coming out of that conversation, did you have any
14 understanding of what type of risk factors might be involved
15 for you?

16 A Yes.

17 Q What did you understand would be the risks involved
18 in this type of surgery?

19 A I was left with the feeling that there was a small
20 risk. There was a risk I could be paralyzed from the
21 surgery. I also felt with the feeling there was a significant
22 risk if I didn't have the surgery.

23 Q How did this make you feel?

24 A Nervous, scared. I was afraid of having surgery. I
25 was afraid of putting my hands in someone's care like that.

1 Q But you elected to do the surgery, did you not?

2 A Yes.

3 Q When was the surgery done, approximately?

4 A Approximately six weeks after the incident.

5 Q Where was the surgery done?

6 A At Fair Oaks Hospital in Fairfax County.

7 Q Do you recall this was an inpatient procedure I am
8 assuming?

9 A Yes.

10 Q How long were you in the hospital?

11 A I was admitted about noon on Friday and I was a
12 released sometime in the morning on Sunday.

13 Q When was the surgery actually done?

14 A About 2 o'clock Friday afternoon.

15 Q Would you please describe for the jury what you
16 recall of being prepared for the surgery until the time you
17 don't have a recollection?

18 A From when I was admitted?

19 Q Yes, when you were admitted. You were prepared to
20 be brought down to the operating room, correct, by nursing
21 staff or professional staff there?

22 A Correct.

23 Q What did they do?

24 A They gave me a series of blood tests, provided me
25 with surgical dressings I would have to wear, put me on a cot,

1 and wheeled me down.

2 Q Were you put under general anesthesia?

3 A Yes, I was.

4 Q You have no recollection of the surgery itself?

5 A No.

6 Q What do you recall when you first came out of the
7 anesthesia?

8 A Asking my doctor what day it was.

9 Q What do you next remember?

10 A Him telling me that it was successful and trying to
11 fight away the aftereffects of the anesthesia, anesthesia
12 coming awake.

13 Q Let me jump back slightly before the surgery. At
14 the point of the surgery you say it was six weeks after the
15 accident. How were you feeling at that point in time, any
16 better, worse, or differently than you were, say, first went
17 to be seen by Dr. Benito?

18 A It was worse. When I first went to see Dr. Benito,
19 it was a nerve pinching when I was sitting down. It would
20 bother me when I would drive or sit at work. Eventually it
21 came to a constant pinching radiating down my leg. I was
22 uncomfortable lying, sitting, standing, anything.

23 Q Did you have any problem walking, moving?

24 A Yes, I had a difficult time walking. I walked with
25 a bit of a limp.

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1 Q Why was that?

2 A I didn't have complete control of my left leg.
3 There was -- all the nerve pulses weren't working. It wasn't
4 necessarily responding the way they were.

5 Q Was it pain that was keeping it from responding do
6 you know?

7 A I think so.

8 Q Coming out of the anesthesia, the doctor I presume
9 told you what day it was. You worked on coming out of the
10 grogginess. How long did it take you before you were pretty
11 much alert?

12 A Just about an hour.

13 Q Where were you at that point in the hospital?

14 A I was in post surgery, the same room they had me in
15 as prep.

16 Q What were they doing for you?

17 A Just making sure I was coming out of full
18 consciousness and I had no bad side effects with the
19 anesthesia.

20 Q Did you go somewhere else after that?

21 A Yes, they took me to my room.

22 Q How long did you stay in your room before you were
23 discharged?

24 A From 5:30 Friday afternoon to about my guess is 10
25 o'clock Sunday morning.

1 Q During that period of time, did nursing staff,
2 helpers, doctors get you out of bed?

3 A Yes.

4 Q Do you remember when you were first taken out of the
5 bed?

6 A As soon as I got to the hospital room.

7 Q How did that feel?

8 A Very painful.

9 Q What type of pain?

10 A It was a strong pulled muscle kind of pain. My
11 understanding was that part of my muscles had to be pushed
12 aside during surgery, and it kind of felt like that's
13 basically what the surgeon did.

14 Q Were you on any type of pain medication?

15 A Yes.

16 Q Do you recall what it was?

17 A Morphine.

18 Q How often were you receiving it that first day after
19 the surgery?

20 A They had set up an IV for me where I could
21 administer it myself with some sort of safety on it so I
22 couldn't continuously give myself morphine.

23 Q Did you use some of the morphine?

24 A Yes, I did.

25 Q Did there come a point they took you off the

1 Morphine or Morphine off the IV?

2 A Yes.

3 Q What time was that?

4 A Midday Saturday.

5 Q Were you still in pain at that point?

6 A Yes.

7 Q Was it as bad as it had been?

8 A No, it was improving.

9 Q Were you up and walking?

10 A Yes, I had to. It was my recovery.

11 Q When you say you had to, why did you have to?

12 A At 5:30 when they wheeled me in, I mentioned to them
13 I had to use the restroom. They said there it is. So they
14 encouraged me.

15 Q Other than to and from the restroom in your bed, did
16 you do any longer walking at some point before you left the
17 hospital?

18 A Yes, down the halls just for exercise, loosening up
19 and gaining strength back.

20 Q How often did you do this?

21 A A couple times a day, couple times Saturday, and I
22 think twice Sunday morning.

23 Q How long would you do it at a stretch?

24 A Ten, fifteen minutes.

25 Q How was it, how did it feel?

1 A It was painful but it was getting better. Saturday
2 I was surprised they were going to release me Sunday. But
3 Sunday I felt I made a lot of progress.

4 Q Had you followed all the instructions they gave you
5 as best you could?

6 A Yes.

7 Q They let you out Sunday?

8 A Yes.

9 Q Where did you go from there?

10 A To home.

11 Q That first day at home, did you engage in any type
12 of physical activities?

13 A No. I just found myself a straight back chair and
14 sat in that.

15 Q Did you walk around some?

16 A A little bit.

17 Q Were you still on medication at that point?

18 A Yes, I was again given muscle relaxants,
19 anti-inflammatories, and I think some -- that's probably it.

20 Q How were you feeling?

21 A Happy. I mean, I was happy that the problem had
22 gone away. I was still feeling some surgical pain, but I was
23 happy my problem was solved.

24 Q When you say gone away, what had gone away?

25 A The nerve pinching pain had gone away. I realized

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1 that immediately as soon as I come out of the operating room
2 and come to my senses so to speak.

3 Q So from that point of view the operation worked for
4 you?

5 A Yes.

6 Q Now, this is Monday and you are at home, correct?

7 A Yes.

8 Q Monday would be a normal workday for you?

9 A Yes.

10 Q Did you go to work on Monday?

11 A No.

12 Q How about Tuesday?

13 A I don't believe so.

14 Q When did you return to work?

15 A I think on Wednesday.

16 Q Did you drive yourself to work?

17 A No, I was told -- I was left with the impression I
18 shouldn't drive for a period of two weeks. I had some of my
19 car poolers drive me.

20 Q But you did manage to get back to work that third
21 day after you were out of the hospital?

22 A Yes.

23 Q Back at work, did you have any problem related to
24 the surgery once you got back to work?

25 A Just some surgical pain, stiffness. I had to get an

1 orthopedic chair to support my back. It was recommended from
2 many of the specialists I had seen.

3 Q It did help?

4 A Yes.

5 Q Now, after the surgery, did you see Dr. Hope at any
6 point again?

7 A Yes, I went back for a revisit to let him see how I
8 was doing.

9 Q Did he tell you that he wanted you to do anything
10 special at that point in time?

11 A Yes, he prescribed I think 16 or 18 sessions with a
12 physical therapist, get my strength back, to teach me how to
13 do things differently, minimize my risk for reinjury.

14 Q Did you take that advice?

15 A Yes, I did.

16 Q Where did you go for your physical therapy?

17 A In the Vienna area. I can't remember the name of
18 the actual therapist.

19 Q The therapist or the organization?

20 A I remember the therapist's first name. The
21 organization's name I can't remember. Orthopedic Specialists
22 some such --

23 Q What's the name you remember of the therapist?

24 A Mike.

25 Q Did you get to know Mike?

1 A Yes, I did.

2 Q How many times did you see Mike?

3 A Fourteen or sixteen times.

4 Q How often were you going?

5 A I think twice a week.

6 Q What would you do at the physical therapist place?

7 A I would get heat treatments. I would begin
8 exercising right away, NordicTrack exercises just to get my
9 strength back, something low impact where I'd just be moving
10 my legs back and forth without any kind of up and down motion
11 on my spine, some flexibility exercises because he gave me the
12 impression if I improve my flexibility I would minimize my
13 risk of reinjury, lie on my back keeping my back as stable as
14 possible, and do leg pulls basically.

15 Q How long would each session last?

16 A About an hour.

17 Q During any part of this session, would he to your
18 knowledge do any type of evaluation of how you were doing?

19 A Yes, measurements of increased flexibility. There
20 was some stomach strengthening and back exercises I did. He
21 kept track of how long I did them at a time. He kept track of
22 the resistance setting on the NordicTrack I used.

23 Q How did you progress through the therapy period?

24 A Pretty well.

25 Q Did you have any relapses that you recall?

1 A Just what was explained to me as the nerve waking up
2 again. Probably about four weeks, maybe six weeks after the
3 surgery my nerve reawoken.

4 Q How was that evidenced that you recall?

5 A Gave me some of the same feelings I had after the
6 accident, just nerve pinching, some muscle spasms in my back,
7 in my legs, made me a little nervous for a while.

8 Q Did that go away?

9 A Yes, it did.

10 Q At the time you finished the therapy, how were you
11 feeling generally? How was your back doing generally?

12 A Very good.

13 Q Mr. Tittsworth, I'm going to show you a series of
14 exhibits and ask you first if you can identify them and then
15 tell the jury what it is that you are looking at, please.

16 MR. AHEARN: May I approach, Your Honor?

17 THE COURT: Have opposing counsel seen the
18 documents?

19 MR. WILLIAMS: That's fine, Your Honor.

20 MR. AHEARN: To move things along, Your Honor, if I
21 may, I'd like to hand him a group of exhibits that are
22 related.

23 THE COURT: Have they been marked?

24 MR. AHEARN: Yes, they have been marked already.
25 Counsel has a copy.

1 THE COURT: They are marked as a group?

2 MR. AHEARN: No, they are marked individually but
3 they are in series.

4 THE COURT: Designated so we have them on the record
5 as to what's in the group?

6 MR. AHEARN: Yes.

7 Q Mr. Tittsworth, I hand you a series of documents
8 that have been marked P1, P2, P3, P4, P5, P6, P7, P8, and P9
9 and ask you if you would look through those first. Then I'm
10 going to ask if you recognize those documents.

11 A Yes, I do.

12 Q As a group what are those documents? What do they
13 represent?

14 A The medical bills for my various services that I
15 received from the doctors in the hospital.

16 Q So these were the charges for the services you
17 received?

18 A Yes.

19 Q Have you reviewed these documents carefully before?

20 A Yes, I have as they came in.

21 Q Do they have only charges on them that were related
22 to treatment you received for the injuries in the accident as
23 best you know?

24 A Yes, they do.

25 Q And now I show you an exhibit that's been marked as

1 P10 and ask if you can identify what type of document that is.

2 A Yes, it's a summary of the medical bills.

3 Q So it has the totals for each of the care providers,
4 correct?

5 A Yes, it does.

6 Q What is the total of the medical charges that you
7 incurred as a result of the treatment that you received from
8 the point of the accident up to the time frame represented by
9 that summary?

10 A About \$11,500.

11 Q Is that the amount or what it adds up to?

12 A \$11,493.61.

13 Q You also missed some time from work, you testified
14 at least those two days after the surgery. Were you off the
15 Friday before?

16 A Yes, I took off the Friday before. I had to take
17 off a couple hours early from work for a couple of the doctor
18 visits beforehand to all three of the doctors.

19 Q Do you recall what the total amount of time added up
20 to you had to take off from work because of your injuries?

21 A A little other five days.

22 Q What is the value of that at the rate of your
23 compensation?

24 A About \$1,200.

25 Q Have you added that to the summary list as well?

1 A Yes.

2 Q Mr. Tittsworth, coming off of or completing your
3 therapy if you will, kind of starting there and looking
4 forward, was there anything that you did differently in your
5 life that was a result of this accident?

6 A Yes, I took steps to minimize the risk of reinjury.

7 Q Is this some of the stuff you were taught at
8 physical therapy?

9 A Yes, dos and don'ts.

10 Q What are some of the things you did do?

11 A Continued my back strengthening exercises,
12 flexibility. I continued to work with a NordicTrack at a
13 local health club and looked forward to them getting a head
14 flexor which is again back strengthening, flexibility type
15 exercise machine.

16 Q How often would you do that?

17 A About three times a week.

18 Q For how long a period did you do that?

19 A I do it today except for the visits to the health
20 club.

21 Q What was it that you did at the health club that you
22 are not able to do outside of the health club?

23 A Do the hip flexor type exercises because of the
24 machinery or NordicTrack.

25 Q These are things you need specialized equipment to

1 do?

2 A Yes, it was recommended that I don't do any running,
3 bicycling. I try to minimize the amount of impact on my
4 back. Those are the exercises they suggested.

5 Q Were there any things you didn't do on the don't do
6 list?

7 A As long as I continued with the health club, I
8 avoided running. I avoided some of the other activities I had
9 that would put me a little at risk, bowling.

10 Q How about golf?

11 A I was told I could golf and I've golfed since. I
12 just don't golf quite as often. It puts a little strain on
13 the back. Just nervousness.

14 Q It's not a pain problem?

15 A No, it's more concern.

16 Q What's the concern you have?

17 A Just reinjury. I don't want to overdo it. I can't
18 play two consecutive days like I did before.

19 Q Why did you stop using the health club?

20 A I just couldn't afford it any longer.

21 Q How much was it costing you?

22 A About \$50 a month.

23 Q Was that the only reason you were using it was this
24 type of exercise?

25 A That was the reason I got the membership. Yes, I

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1 used more than just that, but that was the reason I got the
2 membership.

3 Q What else would you use at the club?

4 A Shower facilities. I would use their weight bench,
5 any kind of weight lifting exercises I could use lying flat on
6 my back on a table.

7 Q How long a period did you go with the club?

8 A A little over a year.

9 Q At this point in time, what is your exercise
10 regimen? How do you do that?

11 A I continue with the back strengthening and stomach
12 strengthening, and I've sort of taken up running for lack of
13 anything else.

14 Q How often do you run now?

15 A Once a week.

16 Q When did you start running?

17 A End of December, early January.

18 Q At this point in time, Mr. Tittsworth, do you have
19 any continuing pain or problem that you identify as being
20 related to the back surgery?

21 A Nothing continuous. Once a week or once every two
22 weeks I'll get a pinching for an hour or more.

23 Q What's the pinching like?

24 A Much subdued as I had from the accident. It makes
25 me aware of what I did, sort of the aftereffect.

1 Q Do you have any problems or concerns about lifting
2 weights?

3 A Yes.

4 Q What are those concerns?

5 A My understanding is I'm not supposed to be lifting
6 weights over my head or over 10 or 15 pounds.

7 Q Has that changed anything in the way you operate?

8 A Yes, I avoid bowling.

9 Q I'm sorry?

10 A I avoid bowling because of that.

11 Q How about housework, yardwork, that type of stuff?

12 A I have to take it easy when I do the housework and
13 yardwork. Just sort of use some common sense, don't overdo
14 it, go slower, be careful how my back is positioned when I'm
15 doing it.

16 MR. AHEARN: Your Honor, may I approach the witness?
17 They are marked P11.

18 THE COURT: You've seen those, counsel for the
19 defendant?

20 MR. WILLIAMS: Yes, sir.

21 Q I ask you, as a group, do you know what those are?

22 A Yes, those are photographs of my van.

23 Q Photographs of your van?

24 A Yes.

25 Q You testified earlier that right after the collision

1 you got out of the car and you looked at your bumper and there
2 was some damage to your bumper at that point?

3 A Yes, there was.

4 Q Are these pictures fair representations of what the
5 damage was to your bumper on that day immediately after the
6 accident?

7 A Yes.

8 Q And are they pictures of the exterior part of the
9 bumper only?

10 A Yes, they are.

11 Q Have you had an opportunity to inspect your car
12 further since the day of that accident?

13 A Yes.

14 Q In that inspection, did you notice anything else
15 that was damaged that you believe in any way was caused by the
16 accident?

17 A Yes, right behind the damage to the bumper I looked
18 inside and saw a u-bar support that was damaged.

19 THE COURT: What?

20 A U-bar support.

21 Q Would you describe what you call a u-bar.

22 A U shaped channel of metal that ran vertically in the
23 car.

24 Q Where is that located?

25 A Between the body frame and bumper.

1 Q Is it what holds the bumper to the car basically?

2 A Yes, I think it's some sort of absorption device.

3 Q Is there anything unusual about -- how many were
4 those?

5 A There were two of those.

6 Q Where abouts are they each?

7 A Equally spaced from the middle of the van on one
8 side and the other side of the bumper.

9 Q Is there any difference between the two of them?

10 A Yes, one was undamaged and the other was damaged.

11 Q How was it damaged?

12 A It was basically bent from a U into a W.

13 Q Were you able to determine whether the location of
14 that bracket was close to the impact where the other car
15 struck yours?

16 A Yes, it was just off the impact area.

17 Q The impact area, what would your definition of an
18 impact area be on your car?

19 A Area of the external damage to the bumper.

20 Q Where you could see the damage on the bumper?

21 A Yes.

22 Q You described at least at one point to Dr. Hope that
23 the accident was minor and you've used that term. What was
24 your understanding of that term when you used it about this
25 accident?

1 A Situation where there wasn't any -- the car was
2 driveable basically. It wasn't totaled or frame damaged or
3 anything like that.

4 Q At what point in your opinion or in your vocabulary
5 would you declare it a major accident?

6 A Maybe when the damage gets over \$1,000 I guess, when
7 there is significant damage to the structure of the vehicle,
8 the frame.

9 Q But you didn't intend by calling it minor to say
10 there was no problem anywhere?

11 A No.

12 Q And the car was driveable, was it not?

13 A Yes, it was.

14 MR. AHEARN: I have no further questions, sir.

15 THE COURT: Reserve cross-examination until after
16 lunch. The Court will excuse the jury at this time to go
17 to lunch. Don't discuss the case with anyone. Don't let
18 anybody discuss it with you, and don't discuss it amongst
19 yourselves until such time that you've heard all the
20 evidence, closing arguments of lawyers. Please return
21 promptly at 10 minutes passed 1:00. We can't start until
22 all seven of you are here. We'll be in recess until that
23 time.

24
25 (Jury out.)

1 (A lunch recess is taken from 12:10 to 1:10.)

2
3 MR. AHEARN: Your Honor, as an administrative item I
4 had asked about having an instruction typed up on life
5 expectancy. We have agreed on the wording of it subject
6 to your looking at it, so at some point --

7 THE COURT: If you agree, I'm sure I'll agree on it.

8 MR. AHEARN: It's about as simple as it comes.

9 MR. WILLIAMS: Judge, the only concern I have is the
10 last sentence. It's already taken care of.

11 THE COURT: The only concern is what?

12 MR. WILLIAMS: He had struck out the last sentence
13 so the sentence is fine the way it is. He had showed me
14 one version --

15 THE COURT: I'll put this here and note that both
16 sides approve of it and consider it and grant that to the
17 instructions that are to be read to the jury. I expect
18 the Commonwealth's attorney will come along momentarily.
19 Were you able to go over your instructions at lunchtime
20 together?

21 MR. WILLIAMS: Completely slipped my mind, Your
22 Honor. I forgot to do that.

23 THE COURT: Why don't you use his interim to at
24 least start this process.

25 MR. AHEARN: We'll step out to the conference room.

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1 It should not take long.

2

3 (A brief recess is taken.)

4 (Jury in.)

5

6 THE COURT: Ladies and Gentlemen, we are late
7 getting started here. We had a criminal matter that's
8 been accomplished. You may proceed with
9 cross-examination.

10

11 CROSS-EXAMINATION

12 BY MR. WILLIAMS:

13

14 Q Mr. Tittsworth, my name is Jim Williams. I have a
15 couple questions I'd like to ask you about your testimony.
16 What I'd like to do is focus on the accident itself. As I
17 understand, you testified earlier that you were stopped at the
18 time the impact occurred, is that correct?

19 A Yes.

20 Q And that your foot was on the brake, is that
21 correct?

22 A Yes.

23 Q Do you remember when I or someone from my office
24 took your deposition?

25 A Yes.

1 Q That was the question-and-answer session under oath?

2 A Yes.

3 Q Do you remember when those same questions were asked
4 of you?

5 A Yes.

6 Q Do you remember what your response was at the time?

7 A That I wasn't sure whether my foot was firmly on the
8 brake or coming off the brake at the time I was rear ended.

9 Q I believe you testified you didn't remember, do you
10 recall that?

11 A No.

12 MR. WILLIAMS: May I approach?

13 THE COURT: Why don't you do this -- is this the
14 transcript of his testimony at the deposition?

15 MR. WILLIAMS: Yes, sir.

16 THE COURT: Ask him if the following questions were
17 put and if he gave the following answers.

18 MR. WILLIAMS: That's fine.

19 MR. AHEARN: May I ask for the following citation.

20 MR. WILLIAMS: That's fine.

21 Q On Line 11 Page 35, and this was Kathy Sundberg in
22 my office, question, "Did you have your foot on the brake at
23 the time you were hit?"

24 Answer, "I can't remember."

25 Do you recall whether you made that testimony?

1 A Yes, I'm sure I did.

2 Q So at the time we took your deposition, this was
3 about June 6, 1994, that was the date, you didn't remember
4 whether you had your foot on the brake and whether or not you
5 were stopped, but now you do remember that you did have your
6 foot on the brake. Could you explain to me what happened that
7 you remember.

8 A My understanding of that question at the time of the
9 deposition was whether my foot was in transition or whether it
10 was, you know, firm hard on the brake or whether I was coming
11 off the brake. That's the way I remember it or interpreted it
12 at the time.

13 Q So you interpreted did you have your foot on the
14 brake at the time you were hit?

15 A As was it firmly there, was it coming off, where was
16 I exactly in there, I can't make that distinct now.

17 Q You can make that distinct now?

18 A My foot was touching the brake. But was I applying
19 hard pressure to it? I was at a stop, but was I applying hard
20 pressure to it or was I coming off, I can't make that
21 distinction.

22 Q So at the time of the impact you were at a stop?

23 A Yes.

24 Q Do you remember when your deposition was taken by my
25 associate on Line 14 you were asked, "Do you know whether or

1 not you had started to move forward or were you at a
2 standstill?" Your answer was, "I'm trying to remember that,
3 and I really can't." Do you remember making that statement?

4 A Yes.

5 Q Today you are saying you were standing still?

6 A Yes.

7 Q Why is there a discrepancy in what you told in your
8 deposition as opposed to what your testimony is today?

9 A In thinking about it further and remembering other
10 aspects of it, it told me where I was. For instance, I can
11 remember looking to the left and leaning forward. And that
12 puts in my mind the rest of my body and what the car was doing
13 at the time. The typical habit I have in driving is to not go
14 until I'm convinced I can go.

15 Q I'm not asking what your habit was. I'm asking what
16 happened on the date of the accident. And you are telling me
17 now you remember what you didn't remember when you were
18 deposed?

19 A Yes, because I'm putting it together in context of
20 looking to the left.

21 Q Well, the deposition was very thorough when it was
22 taken and you were also asked which way you were looking, and
23 you told us at that time you were looking left.

24 A Because I'm now being able to think about it. I've
25 had some time since then I'm able to make the connection to

1 being comfortable saying yes I was at a stop.

2 Q So today you are changing your testimony from what
3 it was before?

4 A No, I have a clearer understanding today.

5 Q You have a clearer understanding of how the accident
6 happened?

7 A I have a clearer understanding of whether my foot
8 was touching the brake and whether I was at a stop.

9 Q Let's talk a moment about what your body did while
10 you were in the vehicle. My understanding was that your head
11 didn't hit the windshield?

12 A Correct.

13 Q Your head didn't hit the steering wheel?

14 A Correct.

15 Q Your chest didn't hit the steering wheel?

16 A Correct.

17 Q In fact, no part of your body came into contact with
18 the front of the vehicle?

19 A Correct.

20 Q The only part your body that came into contact was
21 with the seat and you were already sitting?

22 A Yes.

23 Q I believe you testified your body moved forward a
24 little bit, is that correct?

25 A I don't believe so.

1 Q Did your body jolt forward?

2 A No, my body went back.

3 Q Your body went back into the seat?

4 A Yes.

5 Q Immediately after the impact, of course, you felt no
6 pain?

7 A Correct.

8 Q You unbuckled your seat belt. You got out of the
9 car. You felt no pain?

10 A Correct.

11 Q You walked to the back of the car, met my client,
12 Ms. Robinson, there, and you felt no pain?

13 A Correct.

14 Q It was getting close to dark that night, correct?

15 A I assume so.

16 Q The headlights were on?

17 A I couldn't tell you.

18 Q And you inspected the vehicle and you found some
19 damage?

20 A Yes.

21 Q After you found the damage, you weren't in pain?

22 A Correct.

23 Q You got back -- you exchanged information with my
24 client. You had pulled over to the side of road immediately
25 after the accident, correct?

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1 A Yes.

2 Q Your car was driveable?

3 A Yes.

4 Q And you went home?

5 A Yes.

6 Q How far is it from the point of the car pool to your
7 home at that time?

8 A About three miles.

9 Q Got home, ate dinner, did whatever you did, and
10 later on that evening you started to feel some discomfort?

11 A Yes.

12 Q I believe you described that as some stiffness?

13 A Yes.

14 Q You didn't go to the doctor or have an appointment
15 with the doctor until two days later, is that correct?

16 A That's my recollection.

17 Q January 15, 1993, is that correct?

18 A Yes.

19 Q Was it raining at the time of this accident?

20 A I don't remember.

21 Q But it's important that, of course, the police
22 weren't called?

23 A Yes.

24 Q You didn't leave in an emergency vehicle of any
25 sort?

1 A No.

2 Q You didn't go in an ambulance?

3 A No.

4 Q Didn't go in a fire truck?

5 A No.

6 Q You didn't seek any medical treatment that evening?

7 A No.

8 Q Now, you were driving a burgundy Mazda,
9 multi-purpose van, is that correct?

10 A Yes.

11 Q License number D-L-T J-A-T, correct?

12 A Yes.

13 MR. WILLIAMS: Your Honor, I'd like to hand some
14 photographs to the witness and ask him to identify them
15 for me.

16 THE COURT: Let them be marked.

17 MR. WILLIAMS: They've already been marked.

18 THE COURT: Just don't show them to the jury until
19 they are in evidence.

20 Q Sir, would you please take a look at those
21 photographs. Describe for us the first photograph you are
22 looking at.

23 A The back of my van.

24 Q That is your van?

25 A Yes.

1 Q Would you please look at the next photograph. Would
2 you describe that for us.

3 A That's the back right corner of my van.

4 Q Would you look at the next photograph, please, sir.

5 A Yes.

6 Q What is that?

7 A That's the bumper of my van.

8 Q Would you look at the next photograph, please, sir.

9 A Yes.

10 Q What is that?

11 A The back of my van.

12 Q Do all those accurately reflect the condition of
13 your van immediately after the accident, what you saw when you
14 looked at the van?

15 A Other than the dirt, yes.

16 Q Other than the fact it's a little dirty?

17 A Yes.

18 Q We'll excuse you on that one. Please go to the next
19 photograph.

20 A Okay.

21 Q Could you describe that to us, sir.

22 A No, I couldn't.

23 Q You don't recognize that vehicle?

24 A No.

25 Q You don't recognize that as the vehicle Ms. Robinson

1 was driving on the date of the accident?

2 A No, the picture is too closely focused.

3 Q May I have that back, please, sir. The next
4 photograph?

5 A The license place looks familiar to me.

6 Q You recognize the license plate of the vehicle Ms.
7 Robinson was driving on the date of the accident?

8 A I believe so.

9 Q Would you look at the next photograph.

10 A That's another view.

11 Q Could you describe that for me?

12 A The front of the car.

13 Q The front of whose car?

14 A I believe Ms. Robinson's.

15 Q The next photograph, could you describe that for us.

16 A The right front bumper of her car.

17 Q Of Ms. Robinson's car?

18 MR. WILLIAMS: Your Honor, I move for the admission
19 of all these photographs as evidence.

20 THE COURT: Objection?

21 MR. AHEARN: I'm going to object only those I don't
22 know what the numbers are because he didn't read them
23 off.

24 THE COURT: Step up and have a look at these.

25 MR. AHEARN: The ones, Your Honor, we had identified

1 earlier I have not moved into evidence.

2 THE COURT: I understand. These are being moved
3 into evidence. Why don't you see whether you have an
4 objection.

5 MR. AHEARN: I object to A, B, C, and D.

6 THE COURT: A, B --

7 MR. AHEARN: C and D on the grounds they are
8 duplicates and blowups of the original photographs that
9 Mr. Tittsworth identified on direct.

10 THE COURT: Respond to the objection.

11 MR. WILLIAMS: My photographs are better than his
12 and larger, Your Honor. But I certainly don't want to be
13 accumulative, so if Your Honor wouldn't mind withdrawing
14 the exhibits, but --

15 THE COURT: The fact is that certain photographs
16 were shown to the witness as proof but they have never
17 been offered in evidence. So there is no duplication in
18 evidence. We'll receive A, B, C, and D in evidence
19 because they are not duplicates of any
20 exhibits.

21 MR. WILLIAMS: Thank you, Judge.

22 THE COURT: The objection was to A, B, C, and D.
23 Are there other photographs bearing some other
24 designation? I haven't kept track of how many
25 photographs there are.

1 MR. AHEARN: Yes, Your Honor. I believe there are
2 two others.

3 THE COURT: They are?

4 MR. AHEARN: The ones he believes is Ms. Robinson's
5 vehicle.

6 THE COURT: For the record, what are the other two
7 designations, letters?

8 MR. AHEARN: F, G, and H.

9 THE COURT: A, B, C, D, F, G, and H into evidence
10 noting the objection of the plaintiff.

11 Q Now, you had just dropped your passengers off --

12 A Yes.

13 Q -- when the accident happened so there was no one in
14 the vehicle with you?

15 A Correct.

16 Q Were there any heavy materials or equipment in the
17 van with you?

18 A Not to my recollection.

19 Q I take it the tank of gas was full approximately?

20 A Or whatever might have been spent.

21 Q So simply the weight of the vehicle itself was all?

22 A Yes.

23 Q Now, my understanding is that Dr. Hope and your
24 physical therapist told you not to run?

25 A Yes.

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1 Q But you are still running anyway?

2 A I have begun running again, yes.

3 Q How long have you been running now?

4 A Since January, tail end of December, first of the
5 year.

6 Q Since the winter time?

7 A Since I no longer have access to the health club,
8 yes.

9 Q I'm not sure I heard you earlier. The health club
10 cost you \$50 a month?

11 A Yes.

12 Q As far as your lost wage claim, you were making
13 approximately \$200 a day?

14 A If that's what it comes out to, yes.

15 Q At the time of this accident, you weighed about 234
16 pounds, is that correct?

17 A My bathroom scale at 205, 210.

18 Q At the time of the accident?

19 A At the time of the accident.

20 Q And of course we spent some time on the fact and you
21 agree the accident was minor?

22 A Yes.

23 MR. WILLIAMS: That's all I have for right now.

24 THE COURT: Redirect?

25 MR. AHEARN: No redirect, Your Honor. But at this

1 time I'd like to move in the exhibits he identified in
2 his direct. They would be 1 through 11, Your Honor.

3 THE COURT: You offer those in evidence?

4 MR. AHEARN: I believe there were no objections.

5 THE COURT: Yes, I have one group of nine, 1 through
6 9, and then P10. There was a group of photographs but
7 they were not offered into evidence. As far as I know a
8 number was not ascribed to them.

9 MR. AHEARN: They were P11 for identification.

10 THE COURT: P11 as a group you offer?

11 MR. AHEARN: Group of six photographs and they are
12 being offered into evidence.

13 THE COURT: Any objection?

14 MR. WILLIAMS: I hate to make the objection, but it
15 does seem kind of accumulative since my photographs are
16 enlarged and show the same thing. For the purpose of
17 having less things for the clerk to carry back to the
18 courtroom, I would object.

19 MR. AHEARN: These are the originals, Your Honor.

20 THE COURT: Very well. Is there a reason why both
21 sets of photographs should be received? I'll hear you on
22 that.

23 MR. AHEARN: Yes, Your Honor, because I believe the
24 original photographs are most true to the original
25 scene. When you get into enlarging and reproducing, you

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1 can get less accurate rendition, more grainy. I think
2 they are clearer and sharper photographs than
3 enlargement.

4 THE COURT: So the position is the original
5 photographs may show something differently or more
6 clearly than the blown up version?

7 MR. AHEARN: They would be sharper than the blowups.

8 THE COURT: Anything further on your objection?

9 MR. WILLIAMS: No, sir.

10 THE COURT: I'll receive your photographs as well,
11 P11 along with P10, and P1 through 9.

12 MR. AHEARN: Thank you, Your Honor. I have no
13 redirect.

14 THE COURT: Recross?

15 MR. WILLIAMS: No, Your Honor.

16 THE COURT: You may step down, sir. Call your next
17 witness.

18 MR. AHEARN: Our next witness, Your Honor, would be
19 Dr. Hope and that would be by video deposition which we
20 are prepared to present to the Court at this time.

21 THE COURT: Can that thing be moved closer to the
22 jury. Move it as close and practical if you will.

23
24 (Video deposition of Dr. Hope is shown to the jury.
25 Video deposition of Dr. Hope is not transcribed as a part

1 of this transcript.)

2
3 MR. WILLIAMS: Judge, I'm sure the jury is dying to
4 see those photographs. Would you mind circulating them
5 to the jurors?

6 THE COURT: Very well. That's defendant's
7 exhibit -- where are you?

8 THE BAILIFF: They need a restroom break.

9 THE COURT: All right. Let's take ten while we're
10 getting the exhibits together and putting the television
11 back.

12
13 (Jury out.)

14 (A brief recess is taken.)

15
16 THE COURT: Plaintiff may proceed after we bring the
17 jury in.

18
19 (Jury in.)

20
21 THE COURT: Who is your next witness?

22 MR. AHEARN: I call Michael Mastrotesano.

23
24
25
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1 MICHAEL MASTROSTESANO, a witness called by the plaintiff,
2 first being duly sworn, testified as follows:

3
4 DIRECT EXAMINATION

5 BY MR. AHEARN:

6
7 Q Sir, would you please state your full name and your
8 residence address.

9 A Michael Mastrostesano, 7017 Bradley Circle,
10 Annandale, Virginia.

11 Q What is your employment?

12 A I am a physical therapist.

13 Q Where do you work?

14 A At the Center of Orthopedic and Sports Therapy.

15 Q Do you know the plaintiff in this case, Jeffrey
16 Tittsworth?

17 A Yes, I do.

18 Q How did you come to know him?

19 A He was a patient referred it our clinic by Dr. Hope.

20 Q How long have you been a physical therapist?

21 A Eight years.

22 Q Do you have any special training, certification, or
23 education for that work?

24 A Yes, I have a bachelor's degree from Boston
25 University. I have a certificate in --

1 MS. THOMAS: Your Honor, I'll offer to stipulate as
2 to his qualifications.

3 THE COURT: Go ahead, sir.

4 Q When Jeffrey first came under your care, what did
5 you come to know about his history and why he had come there?

6 A I saw him four weeks after his laminectomy. He had
7 been previously evaluated by Perry Estrosin, another physical
8 therapist at our office. He had lost about 50 percent of the
9 range of motion in his back when I evaluated him on his second
10 visit to our plant. His previous history stated he had no
11 previous back complaints, that he was involved in a car
12 accident which caused a focal protrusion by an MRI report, and
13 he had subsequently had a laminectomy. He was seeing us for
14 post-operative care.

15 Q Did you set up a physical therapy program for him?

16 A Yes, I did.

17 Q Could you tell the jury what type of program you set
18 up and what you did for him.

19 A What I first did is I wanted to educate Mr.
20 Tittsworth on the importance of regular exercise to prevent a
21 recurrence of back injury. I wanted to rehabilitate him to
22 the point at which he restored full range of motion, and I
23 discussed the importance of posture and things of that nature,
24 preventing of recurrence.

25 Q What are some of the things you did with Mr.

1 Tittsworth to accomplish that?

2 A Mr. Tittsworth had post-operative pain. That was
3 reduced with electric stimulation and moist heat. I gave him
4 recommendations on avoidance of excessive physical activity,
5 so his first protection. As Mr. Tittsworth's symptoms
6 improved, I gave him a gradually increasing stabilization
7 program of strengthening exercises to strengthen the muscles
8 in his trunk.

9 Q Why are you concerned to strengthen those particular
10 muscles?

11 A The stability of the spinal column -- in my
12 experience, the stability of the spinal column is dependent on
13 many things. The skeleton sits on one vertebra on top of
14 another. The disk will help to hold the vertebrae together.
15 All things hold the vertebrae together such as the soft tissue
16 surrounding the vertebrae, the ligaments, the tendons of the
17 muscles, the muscles themselves, the fascia, and finally the
18 skin. The structural integrity of the skeleton are dependent
19 on all these things working together. If one part of this
20 whole structural base is injured, or had surgery performed to
21 it where some of it is taken away or something of that nature,
22 then other components of the system have to work harder to
23 make up for its loss. What I could directly effect was
24 stabilizing the spine through strengthening exercises.

25 Q What particular, sir, are you trying to strengthen?

1 A I'm trying to strengthen the ability -- strengthen
2 against the ability of vertebra to shear forward of each
3 other. That shear produces disk problems. Too much shear
4 means the disks will deteriorate ahead of their time.

5 Q What in the therapy is it you are focusing your
6 activity on to make it stronger, the muscles?

7 A Yes, it is the muscles.

8 Q And that's where the exercises come in, is it not?

9 A Yes, so if we could develop these muscles to be
10 greater than normal strength, they will improve or decrease
11 the amount of shear at the vertebral segment.

12 Q Is your objective to make those muscles stronger
13 than they would normally be for a person of his age?

14 A Yes, to make up for the component.

15 Q What were your recommendations if you had any to Mr.
16 Tittsworth on where he should go with exercising once he
17 completed the therapy?

18 A Well, I counsel people on where it would be best to
19 do exercises given their specific situations. I think that
20 exercise is only -- well, an exercise program will only work
21 if it's performed consistently. If consistent exercise for
22 Mr. Tittsworth means going to a gym, then that's where he
23 should be. If it means going home, then that's where he
24 should be. In some patient's situations they have other
25 problems at home or other situations at home such as young

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1 children to take care of or maybe they are not as well
2 motivated in the home situation than a gym situation.
3 Whatever the reason after our discussion, Jeff and I decided
4 he should go to a gym.

5 Q Was there anything particular about the equipment
6 available to use?

7 A I wanted him to use a device I thought would be
8 helpful to stabilize the spine. When you move to reach your
9 arm out in front of you, your center of gravity changes. It
10 moves in front of you. The muscles surrounding the trunk
11 increase in tone to prevent your trunk from tipping forward
12 like this. So arm movements and leg movements increase the
13 tone around the trunk. If you lower those arm movements and
14 leg movements up, then the work that the trunk muscles have to
15 do to stabilize the correct posture is increased and a
16 training will occur. The other thing I had a concern with is
17 intradiscular pressure.

18 Q What is that before we go on?

19 A It's the amount of pressure in the disk. It's
20 measured with a catheter that's introduced into the disk. I'm
21 concerned that the jarring increases intradiscular pressure,
22 so I wanted Jeff to avoid running even though he was an avid
23 runner by history prior to all of these events because
24 running increases intradiscular pressure. When the foot rises
25 through the air and lands, that force is transmitted up

1 through the legs and has to be transmitted by the disk.
2 That's another function of the disk. Besides stabilizing the
3 vertebral segment bone by bone, it also transmits compressive
4 forces. So things that decrease the function of the disk like
5 strengthening of muscles and avoidance of compounding pressed
6 activity will suit him best.

7 Q That's what your concern was for him to use the gym
8 where there is the NordicTrack and hip flexor?

9 A Right.

10 Q Because these are not impact type exercises?

11 A The NordicTrack is non impact. The multi hip I
12 recommended would be to load up his legs so the direct posture
13 would be challenged. So that was a strengthening tool. The
14 other was an aerobic strengthening tool.

15 Q Are there other reasons you recommend and enter
16 programs to make people's muscles stronger when they've had
17 this type of surgery before?

18 A As I said before, I think it's important that all
19 different components of the structure of the skeleton have to
20 be working -- have to be working in order to have a strong
21 skeleton as possible. So if one part is taken away, part of
22 the disk is taken away, something else has to make up for it.

23 Q How long would Mr. Tittsworth have to do this type
24 of exercise?

25 A For the rest of his life.

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1 MR. AHEARN: Your Honor, I have marked as P12 a set
2 of documents which counsel is seeing. Your Honor, I'm
3 going to withdraw. I think it's accumulative. No
4 further questions.

5 THE COURT: Cross-examination?

6 MS. THOMAS: Thank you, Your Honor.
7

8 CROSS-EXAMINATION

9 BY MS. THOMAS:
10

11 Q Mr. Mastrostesano, did I get it right?

12 A Close enough.

13 Q Sir, you are not rendering an opinion here today,
14 are you, that this particular motor vehicle accident caused
15 Mr. Tittsworth's injuries?

16 A No, I am not.

17 Q You have no training in biomedical engineering, do
18 you?

19 A I have training in kinesiology, but I don't think
20 that that's what you are asking.

21 Q No formal training in the field of biomedical
22 engineering?

23 A No.

24 Q And no formal training in the field of mechanical
25 engineering?

1 A Again, I do have some physics in my background, but
2 I don't think that's what you are asking.

3 Q You don't have a degree in it?

4 A No.

5 Q Mr. Tittsworth progressed well in the therapy, did
6 he not, in your opinion?

7 A Yes, he did. There was one brief episode where he
8 presented with what's called a lateral shift. It's a postural
9 deviation that occurs when someone is either trying to get
10 away from an irritated nerve root or when a disk is protruding
11 and forcing him in a specific direction. About six or eight
12 weeks this occurred.

13 Q Quite normal after a herniated disk laminectomy of
14 this sort?

15 A In a low percentage of cases it's present.

16 Q But overall, he progressed well in your opinion, did
17 he not?

18 A He progressed adequately.

19 Q Did he not progress well enough in such that in or
20 around July 15, 1993 when Mr. Tittsworth called you to place
21 your recommendation for his treatment in writing, was his
22 progression not good enough in your opinion such that you
23 could go ahead and do that and let him train on his own?

24 A Yes, it was.

25 Q And he did in fact do that?

1 A Yes, we had planned to discontinue treatment once
2 the symptoms of the nerve root irritation subsided.

3 Q But after that point you had no future plans to see
4 him?

5 A Right.

6 Q And you advised Mr. Tittsworth along the way to
7 avoid activities that would increase intra -- increase lumbar
8 disk pressure?

9 A Yes, I did.

10 Q And that included running?

11 A Yes.

12 Q You've discussed also your desire to strengthen Mr.
13 Tittsworth's posture so as to avoid or make it erect to avoid
14 forward slumping. Do I characterize your testimony correctly?

15 A Yes.

16 Q Is that because the forward slumping movement is the
17 thing which would most likely reinjure the herniated disk
18 area?

19 A It's something that increases intradiscular
20 pressure. That's not something I recommend, so I ask people
21 to avoid stationary bikes and things of that nature that
22 places you in a forward bending type posture. I ask them to
23 look at the ergonomics, the comfort level of their work
24 station. Are they sitting forward, slumping, sitting up. I
25 don't know. It would most increase his incidence of back

1 injury, but it's certainly something that could contribute to
2 it.

3 Q So it's the forward flexing movement you are
4 concerned with?

5 A Yes.

6 MS. THOMAS: I have nothing further.

7 THE COURT: Redirect?

8 MR. AHEARN: No redirect.

9 THE COURT: May the witness go?

10 MR. AHEARN: Yes, Your Honor, he may be excused.

11 THE COURT: Call your next witness.

12 MR. AHEARN: Your Honor, that's the last of our
13 witnesses. The only additional evidence I would like to
14 offer would be to read into evidence several admissions
15 that the defendant has made in this case in response to
16 request for admissions.

17 THE COURT: Which are these to be read with opposing
18 counsel?

19 MS. THOMAS: I have no idea.

20 THE COURT: Do you want to file them now and see if
21 there is a problem?

22 MR. AHEARN: Again, Your Honor, we have resolved
23 it. I will withdraw my request. I would move into
24 evidence the most recent exhibit identified P12.

25 THE COURT: P12 you withdrew.

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1 MR. AHEARN: Oh, I'm sorry. I'm finished. I rest.

2 THE COURT: The defendant may proceed.

3 MS. THOMAS: I have a motion, Your Honor.

4 THE COURT: Do you want to take that up at the
5 bench? The bench is so close to the jury. Still here at
6 the bench it will be a problem. I'll go down to where
7 counsel are.

8
9 (The following are discussions held outside of
10 the jury.)
11

12 MS. THOMAS: Motion to strike. Judge, there has
13 been no evidence of causation in this matter, and you
14 know a primary facie case of negligence is to breach
15 causation of damages. I think we have a primary facie
16 case on negligence, Your Honor. The testimony in
17 evidence was that he is stopped and that she ran into his
18 rear end. No explanation other than that the presumption
19 at this point under Virginia law is that negligence can
20 be presumed from a rear end collision in this situation.

21 MR. AHEARN: May I respond, Judge?

22 THE COURT: Well, let's take it all. The motion
23 with respect to the causation. Address that.

24 MR. AHEARN: Causation of the injury?

25 THE COURT: Yes.

1 MR. AHEARN: I think the doctor's testimony is more
2 than primary facie case on that, Your Honor. He's
3 testified on more than a medical opinion, medical
4 certainty that with the history given to him, his opinion
5 was that the motor vehicle caused this injury.

6 THE COURT: You may close on your motion.

7 MS. THOMAS: He has also admitted he didn't see the
8 accident. He only relied on what the defendant told
9 him.

10 THE COURT: The court notes that the physician did
11 testify that for a reasonable degree of medical certainty
12 that the accident was the cause of the accident. Whether
13 he saw it or not is irrelevant. Of course, I'm not going
14 to strike the plaintiff's case as he had, but still I
15 don't think that would justify the granting of a motion
16 to strike.

17 As to the matter of negligence, the Court recalls an
18 instruction which plaintiff probably has, that certain
19 inference may be gleaned from a rear end collision. I
20 don't think the explanation was indicated in opening
21 statement, but the curling iron would help you at this
22 stage. I deny your motion.

23 MS. THOMAS: Thank you, Judge.

24 MR. AHEARN: Thank you.
25

1 STEPHANIE N. ROBINSON, the defendant, first being duly
2 sworn, testified as follows:

3
4 DIRECT EXAMINATION

5 BY MR. WILLIAMS:

6
7 Q Please introduce yourself to the jury.

8 A I'm Stephanie Robinson.

9 Q Where do you live?

10 A 56 Susan Lane, Stafford, Virginia.

11 Q Do you recall an accident involving this fellow here
12 Mr. Tittsworth?

13 A Yes, I do.

14 Q Could you tell us what you recall happened that
15 particular night.

16 A We were at a stop sign in the parking lot at
17 People's Drug, and I reached over to grab the curling irons
18 that were in my front seat because they were hot and put them
19 on the floor of my car. We were both at a stop. It had been
20 raining out that day and my tennis shoes were wet. When I
21 leaned over, my foot slipped off the brake, and my car stalled
22 because I have a standard transmission. My car stalled and
23 jumped forward and bumped the back of his van.

24 Q How strong was the impact with the plaintiff's van?

25 A Not strong at all.

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1 Q How would you characterize it?

2 A Very minor.

3 Q What happened after the two cars bumped?

4 A We pulled over into the commuter parking lot. We
5 got out, and I apologized repeatedly, admitted that I had
6 slipped my foot off the brake on accident and my car had
7 bumped into his and asked him was he okay. We went down to
8 see if there was damage and there wasn't.

9 Q You looked at the back of his van?

10 A Yes, sir.

11 Q You didn't find any damage?

12 A No, I didn't. It was dark outside. It was the
13 middle of January. It had been raining out that day earlier.
14 It was real dim outside. I had my headlights on. I pulled up
15 right behind him so my headlights were right in the back of
16 his van so I can see, and he bent down and examined my car.
17 Then we exchanged informed.

18 Q I'd like you to take a look at exhibits C, D, B, and
19 A for me, please. Those have already been admitted into
20 evidence. Do you recognize that as the plaintiff's van?

21 A Yes.

22 Q Now, do you see the damage on the left bumper?

23 A Yes.

24 Q Was that damage on the back of the van when you
25 looked at it on the night of the accident?

1 A No.

2 Q And you had your headlights on?

3 A Yes.

4 Q And they were shining right on that area?

5 A Yes.

6 Q Do you recall what part of your car came into
7 contact with his van?

8 A The left side, the driver's side of my car.

9 Q Came into contact with what part of his van?

10 A The right side.

11 Q So if there had been damage, it would be on the
12 right side?

13 A Yes, sir, because I had just pulled out of a parking
14 space from the parking lot, so I wasn't completely behind his
15 van yet.

16 Q Did the plaintiff say anything to you about when he
17 saw damage to his van?

18 A No.

19 Q What did he tell you?

20 A He said that he couldn't see anything wrong with
21 either of our vehicles.

22 Q Was there any damage to your vehicle?

23 A No.

24 Q I'm going to show you exhibit E which has not been
25 admitted into evidence. Could you describe that for us,

1 please.

2 A It's the left side of my front bumper.

3 Q Does that accurately portray your vehicle
4 immediately after the accident?

5 A Yes.

6 MR. WILLIAMS: Your Honor, I move for the admission
7 of E.

8 THE COURT: Any objection?

9 MR. AHEARN: No, sir.

10 THE COURT: In evidence.

11 Q Did Mr. Tittsworth say anything to you about whether
12 he had been hurt?

13 A No, he didn't. He said everything was fine. I
14 asked him was he okay. I asked him was he hurt or anything.
15 He said no he wasn't and I told him -- I said, well, I'm fine.

16 Q How long did the exchange occur?

17 A Two to three minutes, tops. Three minutes tops.

18 Q And I take it you exchanged information?

19 A Yes, sir.

20 Q Then you went home?

21 A Yes.

22 Q Did you see Mr. Tittsworth leave the scene in an
23 ambulance?

24 A No.

25 Q Police weren't called?

1 A No.

2 Q You didn't leave in an ambulance either?

3 A No, there was no mention of police or ambulance when
4 we exchanged information at all.

5 Q Did you again have an opportunity to view the
6 plaintiff's van at a later date?

7 A Yes.

8 Q Could you please tell the jury about that.

9 A It was about two days after the accident happened --
10 THE COURT: How many days?

11 A Two. And I went back to my mother's shop because I
12 worked at CVS and my mother worked right next door at the
13 salon next door, so I had went to her shop that day. I had
14 seen his van in the parking lot. So her and one of her
15 co-workers, we had went outside, and I said, you know, that's
16 the van I had gotten into an accident with. She looked at his
17 van. There was no damage that day.

18 Q Don't tell us what anybody else saw. Did you see
19 any damage on that van?

20 A No, sir, I didn't.

21 Q Let's return to the accident for a moment. Did you
22 notice whether the van lurched forward?

23 A No, I didn't.

24 Q You didn't notice whether it did or not or you
25 didn't see the van?

1 A I didn't see the van lurch forward.

2 MR. WILLIAMS: Thanks.

3 THE COURT: Cross-examination?

4 MR. AHEARN: Yes, Your Honor. Thank you.

5

6 CROSS-EXAMINATION

7 BY MR. AHEARN:

8

9 Q Ms. Robinson, did your foot slip off the brake or
10 clutch?

11 A Clutch.

12 Q Which foot did you have on the clutch?

13 A My left foot.

14 Q Where was your right foot?

15 A On the brake.

16 Q Neither foot was on the accelerator?

17 A No, we were in a complete stop. I was in first
18 gear. My right foot was on the brake. My left foot was
19 pressed in on the clutch.

20 Q Was your right foot pressing the brake down?

21 A Yes, it was.

22 Q Have you ever stalled your car out before?

23 A Yes.

24 Q How often?

25 A When I very first started learning how to drive a

1 clutch, I stalled out all the time. I learned how to drive a
2 clutch when I was 14.

3 Q You said your attention was drawn to a hot curling
4 iron. You were concerned about that and your sneaker was wet.
5 Which of those caused you to lose your footing on the peddle?

6 A My sneaker.

7 Q Were you reaching for your curling iron as your foot
8 came off?

9 A I was reaching over to the next seat. I wasn't
10 even -- I hadn't come completely off my seat or anything. I
11 had moved over like this and kind of just dropped the curling
12 irons on the floor.

13 Q At that point you knew there was a vehicle in front
14 of you?

15 A Yes.

16 Q That was Mr. Tittsworth's vehicle?

17 A Yes.

18 Q What time was this again?

19 A It was between about 5:30, 6 o'clock because I was
20 on my way to school for a function we had at school that
21 night.

22 Q And you had your headlights on?

23 A Yes, sir.

24 Q Was it dark enough to have your headlights on?

25 A It wasn't completely dark. It started to get dark.

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1 It was raining that day so it was real gloomy that day.

2 MR. AHEARN: I have no further questions.

3 THE COURT: Redirect?

4

5

REDIRECT EXAMINATION

6

BY MR. WILLIAMS:

7

8 Q When you came to a stop behind the van, plaintiff's
9 van, how far away from the van were you?

10 A I was fairly close. I wasn't right up on his
11 bumper. I was fairly close because I was just pulling out of
12 the parking lot.

13 Q Can you estimate, one foot, two foot?

14 A I'd say a foot.

15 THE COURT: Recross?

16 MR. AHEARN: No, recross, Your Honor.

17 THE COURT: Thank you. You may step down. Call
18 your next witness.

19 MR. WILLIAMS: I call Janet Rowe, Your Honor.

20

21

22

23

24

25

1 JANET L. ROWE, a witness called by the defendant, first
2 being duly sworn, testified as follows:

3
4 DIRECT EXAMINATION

5 BY MR. WILLIAMS:

6
7 Q For the record, ma'am, would you please state your
8 name.

9 A Janet Lynn Rowe.

10 Q Are you any relationship to the defendant?

11 A Yes, that's my daughter.

12 Q Do you recall the date that this accident happened?

13 A Yes, I do.

14 Q Do you recall an incident occurred two days after
15 this accident?

16 A Yes, I do.

17 Q Could you tell us in your own words what you recall.

18 A I was at my salon. It was in the afternoon.
19 Stephanie had come in. It was me an another co-worker. She
20 told me the van she had hit was in the parking lot. Me and
21 the other girl went outside and looked at it.

22 Q Did you look closely at the van?

23 A Oh, yeah.

24 Q Did you look at the back of the van?

25 A Yes.

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1 Q Bumper area?

2 A Yes.

3 Q What did you see?

4 A I saw nothing.

5 Q Any damage?

6 A No.

7 Q Would you please look at the photographs of the
8 burgundy van. Could you please take a look at all four of
9 those, please. Two days after the accident happened, was the
10 van in that condition?

11 A No, sir, it wasn't.

12 MR. WILLIAMS: That's all I have, Your Honor.

13 THE COURT: Cross-examination?

14 MR. AHEARN: Yes, thank you.

15

16 CROSS-EXAMINATION

17 BY MR. AHEARN:

18

19 Q Ma'am, the van you looked at, how did you know it
20 was Mr. Tittsworth's?

21 A That's what my daughter told me.

22 Q Have you ever seen it before?

23 A No, sir.

24 Q Have you ever seen it since?

25 A No.

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1 Q Without looking back at those pictures, do you know
2 what the license plate number is?

3 A I remember three, J-A-T.

4 Q Did you know that before you looked at his van those
5 were the last three numbers?

6 A No. When I saw it in the parking lot, I remembered.

7 Q As far as you know it could have been anybody's
8 Mazda?

9 A Yes.

10 MR. AHEARN: No further questions.

11 THE COURT: Redirect?

12

13 REDIRECT EXAMINATION

14 BY MR. WILLIAMS:

15

16 Q Ma'am, what are the last three letters of the
17 photograph in front of you of the van?

18 A J-A-T.

19 Q Those are the same last three letters you saw on the
20 date of the accident?

21 A Yes.

22 THE COURT: Anything further from this witness?

23 MR. AHEARN: Nothing.

24 MR. WILLIAMS: No, Your Honor. She can be excused.

25 THE COURT: Thank you. You can be excused. Call

1 your next witness.

2 MS. THOMAS: Defense calls Alfred L. Cipriani.

3

4 ALFRED L. CIPRIANI, a witness called by the defendant,
5 first being duly sworn, testified as follows:

6

7

DIRECT EXAMINATION

8

BY MS. THOMAS:

9

10 Q Good afternoon, sir.

11 A Good afternoon.

12 Q Would you please introduce yourself to the jury.

13 A My name is Alfred Cipriani.

14 Q Where are you employed, Mr. Cipriani?

15 A I am employed by Forensic Technologies International
16 Corporation, abbreviated FTI. It's in Annapolis, Maryland.

17 Q How long have you been there?

18 A I've been associated with FTI since 1980 when I
19 became a part-time employee. And I've either been a part-time
20 employee or consultant up until 1991 when I became a full-time
21 employee.

22 Q What's your title at FTI, sir?

23 A I am what's called a principal mechanical engineer.
24 I am the director of the accident reconstruction group.

25 Q Mr. Cipriani, I know it's not always easy to discuss

1 one's qualifications in life, but I would like you to discuss
2 your qualifications. Where did you receive your undergraduate
3 degree, sir?

4 A I received a bachelor of science in naval
5 engineering with a minor in aeronautical engineering in 1969
6 from the US Naval Academy.

7 Q Any post-graduate?

8 A Yes, I have a master of science degree in mechanical
9 engineering from the US Naval post-graduate school in
10 Monterey, California in 1976.

11 Q Do you hold any licenses or certifications in your
12 profession?

13 A Yes, I am a registered professional engineer. I
14 took the examination here in the State of Virginia. I am also
15 registered in Maryland and Pennsylvania.

16 Q What if any teaching experience do you have?

17 A I taught in the naval systems engineering department
18 at the US Navel Academy from 1979 to 1982. I also taught in
19 the mechanical engineering department from 1984 to 1988. I
20 was also the associate chairman of the department.

21 Q Is that approximately a total of seven years of
22 teaching experience?

23 A At the college level, yes.

24 Q Do you have any other teaching experience at other
25 levels?

1 A Well, I have several engineers that work for me.
2 I've trained all of them. I have also taught through the
3 junior achievement program at the high school level.

4 Q What if any professional associations in your area
5 do you belong to?

6 A I am a member of the American Society of Mechanical
7 Engineering, American Society of Naval Engineering, National
8 Society of Professional Engineers, and the National
9 Association of Professional Accident Reconstruct Specialists,
10 abbreviated NAPART.

11 Q Does your mechanical engineering educational and
12 professional background include training in the area of
13 accident G acceleration analysis?

14 A It's basic engineering. And, yes, it does. That's
15 done basically at the second-year undergraduate level
16 engineering. It's a course called engineering dynamics or
17 mechanics.

18 Q So I take it from that you do have specialized
19 training in that particular area of expertise?

20 A Yes, not only have I taken the course at both the
21 graduate and undergraduate level, I've taught the course at
22 the college level.

23 Q Very well, sir.

24 MS. THOMAS: Your Honor, at this time I move to
25 qualified Alfred L. Cipriani as an expert in the field of

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1 mechanical engineering and G acceleration impact
2 analysis.

3 THE COURT: Any objection?

4 MR. AHEARN: Voir dire, Your Honor, if I may.

5 THE COURT: You may proceed.

6
7 VOIR DIRE EXAMINATION BY MR. AHEARN:

8
9 Q What is a G force or what is that you are an expert
10 in here?

11 A First mechanical engineering.

12 Q In terms of the G force, I don't understand the
13 term.

14 A Acceleration first of all, the units of acceleration
15 or feet per second. The standard, if you want, by which we
16 usually compare things is the acceleration of gravity which is
17 32.2 feet per second, per second. So When we talk about 1 G,
18 that is the definition of 1 G acceleration.

19 Q This is the type of information you learn or are
20 taught in the basic course of engineering?

21 A Yes.

22 Q Sir, did you see the accident that was involved in
23 this case?

24 A No, I did not.

25 Q Have you seen either of the vehicles that was

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1 involved in this case?

2 A The photographs, but not the vehicles themselves.

3 Q What photographs have you seen?

4 A I saw six color photographs and two color Polaroid
5 photographs of the Mazda MPV that was involved in this case,
6 and nine color photographs of the Hyundai.

7 Q What size were these photographs, small size or full
8 size like the ones in front of you?

9 A No, they were the standard size photographs.

10 Q They were not blowups?

11 A No.

12 MS. THOMAS: Your Honor, I'm going to object to this
13 line of questioning. I don't think this is proper voir
14 dire. This goes to impeachment. Here we're merely
15 trying to test his qualifications.

16 THE COURT: Do you want to be heard?

17 MR. AHEARN: Yes, Your Honor. Bench?

18 THE COURT: Are you not out of voir dire asking what
19 he did at this stage? Voir dire would look to his
20 qualifications.

21 MR. AHEARN: I believe, Your Honor, it would also
22 look as to what information he has available to apply his
23 expertise to.

24 THE COURT: Court will sustain the objection.

25 MR. AHEARN: I have no further questions, sir.

1 Thank you, Your Honor.

2 THE COURT: Objection to his testifying in the field
3 of accident reconstruction and acceleration analysis?

4 Any Objection?

5 MR. AHEARN: Objection, Your Honor. Oh, I'm sorry,
6 no objection.

7 THE COURT: Very well. His testimony will be
8 received as such.

9
10 DIRECT EXAMINATION (Cont.)

11 BY MS. THOMAS:

12
13 Q Mr. Cipriani, you are aware of an accident involving
14 the plaintiff, Mr. Tittsworth, and the defendant, Stephanie
15 Robinson, which occurred on January 13, 1993, is that correct?

16 A That is correct.

17 Q What were you asked to do regarding that accident?

18 A For me specifically I was asked to determine the
19 acceleration that resulted from the impact of these two
20 vehicles.

21 Q Is one able to make such an analysis of accidents
22 like the one Mr. Tittsworth was involved in?

23 A Yes.

24 Q Do you routinely do that?

25 A Yes, I do.

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1 Q Did you, in fact, conduct such an analysis of the
2 accident we're here on today?

3 A Yes, I did.

4 Q Do you have an opinion after conducting that
5 analysis as to the amount of forces that were on Mr.
6 Tittsworth's body and vehicle in the accident?

7 A Yes.

8 Q What is that opinion?

9 A My opinion is that the accelerations experienced by
10 Mr. Tittsworth's vehicle and the maximum he might experience
11 would be no greater than 1.6 G's.

12 Q You may have answered some of this in Mr. Ahearn's
13 question, but G's -- what are G's?

14 A A G is an acceleration due to gravity. We basically
15 do everything in comparison to the acceleration of gravity,
16 and then, therefore, convert everything into G's by
17 comparison. As you sit there now, you are experiencing 1 G
18 holding you to the seat. The effect of that is you weigh what
19 you weigh. If you were subjected to 2 G's in exactly the same
20 manner, you would basically weigh double what you do now. If
21 that two G's instead of being in a seated position and feeling
22 it straight down as you do from gravity, if you experienced it
23 as if your feet were rotated, so you felt as if you were
24 laying on your back, that would essentially be what 1 G would
25 be or if you doubled it, again two G's.

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1 Q Do you have an opinion as to how the 1.6 G's you
2 calculated in this accident compare to the G's we incur in
3 daily living?

4 A Yes.

5 Q For example?

6 A Well, for example, the act of, let's say, hopping
7 off this step, assuming this is an eight-inch step, landing on
8 both feet, would subject your head to -- well, to G's as high
9 as 8 G's. If you were to stand up in front of your chair and
10 just lean back and plop down in the chair, sort of an
11 uncontrolled sitting motion, that would subject your head to
12 G's as high as 10.1.

13 Q Upon what do you base that opinion, sir?

14 A Research that has been done and published in the
15 field.

16 Q This research you refer to, is it the type normally
17 relied upon by experts in your field?

18 A Yes.

19 Q Do you have an opinion as to what G force is
20 involved or what G's of acceleration are involved in a person
21 coughing?

22 A Yes. Again the G's there would be for the head
23 would be as high as I believe it's 3, 3 and a half G's.

24 Q When you say you conducted an analysis of this
25 accident, could you tell me what you based your analysis on.

1 A Yes. In doing this analysis, the information that
2 is available, because of the type of impact, tends to be
3 somewhat limited because the damage is small. Usually the
4 vehicles are repaired or it's tough to distinguish this damage
5 from things that may have occurred after it or before it. The
6 first thing is I obtained the vehicle identification numbers,
7 so I at least know for sure what the make, model, year of the
8 vehicles are.

9 Second, the vehicle identification number, I have a
10 data base available which provides vehicle information such as
11 the wheel base, the overall width, the weight of the car,
12 things like that, so I can identify the vehicle more
13 specifically.

14 Next, I look for information about the make, model,
15 year, group of the car. I'll get to why in a second. The
16 Hyundai Excel that was involved is a good example. It's only
17 manufactured as a Hyundai Excel as compared to a G.M. that
18 might be under four different names, Chevy, Buick, Olds, and
19 Pontiac, all different names but all the same car. The
20 Hyundai Excel, one kind of car. Next I look at the years over
21 which it's manufactured. The reason for doing these steps is
22 so that I can look up crash tests data on substantially
23 similar cars. So there is a wide data base of crash tests
24 that are publicly available done by the National Highway
25 Transportation Safety Administration, done by the Insurance

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1 Institute for Highway Safety, done by Transport Canada, and
2 done by in the process of doing research and published by the
3 society of auto engineers.

4 Q Mr. Cipriani, these crash tests and data bases that
5 you referred to, are they the type that are normally relied
6 upon by experts in your field?

7 A Yes. Now, having looked up that information, the
8 idea of looking up the crash tests data or similar vehicles
9 involved in this accident is to find out how stiff they are.
10 Obviously a, let's say, a subcompact car frontal stiffness, if
11 you ran it into a brick wall, you'd find was not as stiff as a
12 Ford F350 pickup truck if you ran it into the same wall. The
13 amount of crush that occurs to a vehicle for a given speed is
14 dependent upon how stiff the vehicle is. So it's necessary to
15 look up the crash test data to specifically identify the
16 vehicle to know specifically how stiff it's front or rear
17 structure is. Having done that, I'm now ready too look at the
18 photographs and to start to do an analysis.

19 Q While we're on that, let me ask you which
20 photographs you looked at. I believe some have been admitted
21 into evidence.

22 MS. THOMAS: May I approach?

23 THE COURT: Sure.

24 Q Sir, I ask you to look at all the photographs that
25 have been admitted into evidence today and one by one please

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1 identify the marking on the back of the photo.

2 A Certainly. If I can, I saw the smaller ones, but I
3 have the large ones in front of me and they are certainly more
4 descriptive.

5 Q Just for clarity for the record, I'd like you to
6 identify all photographs that you've seen.

7 A I have seen all six of these photographs which are
8 identified as I see P11 if that's -- am I identifying
9 correct? I have the blue tags on the back.

10 Q What do each of those blue tags say, sir?

11 A Cipriani Exhibit. I see 1, 2, 3, 4, 5, and 6.

12 Q I ask that you look at the big pictures in front of
13 you and identify them one by one.

14 A By the way, that first set of six photographs are
15 all of the Mazda MPV van.

16 Q And they are 35-millimeter size?

17 A Yes. Now I'm looking at the blowups of the van, and
18 these are identified as Defendant's Exhibit A, B, C, and D.

19 Q Sir, have you seen all of those photographs in one
20 form or another?

21 A Yes, I have.

22 Q Did you utilize them in conducting your analysis?

23 A Yes, I did.

24 Q Sir, I want to ask you is it really possible just by
25 virtue of looking at photographs and by taking vehicle

1 identification numbers and going through the crash test
2 studies that you indicated and so forth to actually determine
3 the G's present?

4 A Within certain limitations, yes.

5 Q What are those limitations?

6 A The limitations are really quite simple. The first
7 assumption is that there really is permanent crush damage to
8 the vehicle. So even if, for instance, in some of these
9 photographs there appears to be no damage, rather than assume
10 it's something less than zero, shall we say, I assume in this
11 case a half of an inch of permanent crush to the vehicle. The
12 reason, because to use the various tools that are at my
13 disposal, the engineering tools, I have to assume some crush.
14 So assuming less than that, for instance, on a bumper that has
15 the shock absorbers, you could have an impact, it could flex,
16 go back, and we wouldn't be able to tell the difference. And
17 conversely, the G's, you would not be able to calculate
18 specifically a number of G's. So by assuming permanent crush
19 damage and assuming a greater width of damage, I can go to the
20 upper bound that the G's might have been, in other words, a
21 limited number.

22 Q Now, these assumptions you made, permanent crush
23 damage and width of damage, do you have an opinion as to
24 whether you calculated those to the benefit of the doubt of
25 the plaintiff?

1 A That's exactly what I do. The idea here is to do
2 the calculations such that any acceleration that I determine
3 from the analysis, that that number will be the upper limit
4 that might have occurred. So in this particular case where
5 I've said it's no more than 1.6 G's, it may have in fact been
6 0.9 G's. It may have been 1.0. It might have been 0.5. I
7 don't know how low, but I know it was no lower than 1.6.

8 Q So in making that assumption, for example, if I told
9 you the damage on the plaintiff's vehicle was to the left side
10 of the license plate on the back, have you covered that by
11 your analysis?

12 A Yes.

13 Q If I told you it was on the right side of the
14 license plate on the back, have you cover that by your
15 analysis?

16 A Yes.

17 Q How have you done that?

18 A By assuming a greater width than the damage actually
19 appears to be. By also assuming a greater depth than the
20 damage appears to be.

21 Q Greater depth, what depth did you assume?

22 A I assume half of an inch of permanent crush of the
23 whole width and whole height of the back of the vehicle.

24 Q So is it your opinion that assumption is generous to
25 the plaintiff's benefit?

1 A Yes, it is.

2 Q How so?

3 A If the damage is less in width, the acceleration
4 would be lower. How much lower would be argumentative in
5 terms of getting a specific number. If the damage is less
6 deep in terms of crush, the same would be true. The G's and
7 acceleration.

8 Q Can you look at that picture and tell me that's not
9 a half an inch depth of crush damage?

10 A Absolutely, it is not that much.

11 Q But yet you assume that?

12 A That's correct.

13 Q Why did you assume that?

14 A I assume that to be on the safe side so that I can
15 testify within a degree of engineering certainty that that
16 acceleration is no more than the number I've come up with, 1.6
17 G's.

18 Q So in your opinion, your analysis is extremely
19 conservative for the defendant?

20 A For the plaintiff you mean?

21 Q So in your opinion, your analysis is conservative
22 for the defendant and gives every benefit to the plaintiff?

23 A That is correct.

24 Q Is there any assumption or variable relevant to your
25 analysis that hasn't been covered by this generous

1 exaggeration you've described?

2 A No, they are all covered that way. For instance,
3 the weight of the vehicle, the MPV van, I've taken the empty
4 curb weight of the vehicle and added only 150 pounds which is
5 the customary practice for adding weight for occupants, added
6 only 150 pounds to get the weight of the vehicle. The MPV van
7 could weigh no less than that. It would, if anything, weigh
8 more. If it weighed more, the G's would go down by about a
9 tenth of a G for every additional 300 pounds.

10 Q What if I told you it had a big load of books in the
11 back and a full tank of gas, would that matter?

12 MR. AHEARN: Objection, calls for speculation.

13 THE COURT: Sustained.

14 Q Have you covered then every aspect that might be a
15 variable factor?

16 A Well, we haven't commented about the other vehicle
17 because I've also taken the same steps on the other vehicle.
18 In terms of full width -- I haven't identified these if I
19 may.

20 Q Please do so.

21 A These are Defendant's Exhibit E, F, G, and H.

22 Q What do they depict, sir?

23 A It's fairly apparent from the photographs from the
24 front of the Hyundai, there is no crush damage to this
25 vehicle. Just the same I have assumed a half of an inch of

1 crush damage over the width of the entire vehicle in terms of
2 crush damage in the accident. This again if the width were
3 less or if the crush were less, the G's that the MPV
4 experienced would be less.

5 MR. AHEARN: Objection, Your Honor. At this point
6 we have the witness putting a lot of assumptions in
7 here. He's even stating now that he's made an assumption
8 that there is damage where there is isn't damage that's
9 obviously not on the photograph. I believe we're clearly
10 in the relm he's got to speculate every conclusion based
11 on assumptions that are not factual in this case.

12 THE COURT: The assumption as I understood his
13 testimony was in favor of your client. I overrule your
14 objection.

15 Q All right, sir, 1.6 G's, how do you get that? Could
16 you show us.

17 A Certainly.

18 MS. THOMAS: May I, Judge?

19 THE COURT: Bring the easel down in front of the
20 jury.

21 Q Mr. Cipriani, utilizing the information you've just
22 described making the assumptions in the benefit of the
23 plaintiff that you've just described, tell me how you came to
24 1.6 G's. Assume we're all fourth graders in math.

25 A Acceleration we'll give it an A is equal to Delta V

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1 over Delta T.

2 Q What's Delta V?

3 A Delta V is the change of velocity that the vehicle
4 might experience divided by the time over which an impact
5 occurred. First of all, on the Delta V, all the information
6 I've just commented about, the width of the crush, the depth
7 of the crush, the stiffness of the vehicle, all these things
8 go into an equation, and I'm not going to write it down
9 because it's about this long to determine the energy and the
10 Delta V that occurs in the impact. The Delta V is also
11 related to the weight of the vehicle. So if I have a big
12 vehicle hitting a small vehicle, that small vehicle is going
13 to experience a bigger Delta V than the big vehicle does.
14 Conversely, if I run a small vehicle into a bigger vehicle in
15 terms of weight, the big vehicle will experience a smaller
16 Delta. The Delta V that we've already talked about in terms
17 of what you get came out to be 3.5 miles per hour. That is
18 not to say that's a speed. When we talk about Delta V, if the
19 vehicle is stopped, it went from zero to at most 3 and a half
20 miles an hour. If it was going 1 mile an hour at the time it
21 got hit, it would go from 1 to 4 and a half. So the Delta V
22 is the change that occurs. So it's without regard to what
23 happened on the ground, whether the vehicle is stopped or not.

24 The second factor is the time. Impacts in
25 bumper-to-bumper collisions take between 100 to 150

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1 milliseconds. One millisecond is equal to 0.001 seconds. So
2 when we have an impact between two cars bumper to bumper, it's
3 going to take between .1 and .15 of a second from the time the
4 first touch between the two bumpers until the bumpers come
5 apart again. To get the maximum acceleration that might
6 occur, we want to take the maximum Delta V and divide by the
7 smallest time. It will give us the highest G's. In that
8 case, this is the 0.100 second. Now, of course we have to put
9 this into feet per second and then into G's.

10 Let's come down here for a second. What that
11 reduces down to, A equals 3.5 miles per hour, times 1.47 feet
12 per second, per miles per hour, divide that by the .100 second
13 and then finally we can put that the G in there to get this
14 into G's. One G is 32.2. So to find out how many G's this
15 is, I have to divide by 32.2 feet per second, per second, per
16 G. When we do that, the acceleration this vehicle
17 experiences. And now we change the sign here must be equal to
18 or less than, and that works out to be 1.6 G's. So the
19 sequence is making that as big as possible by always
20 estimates, engineering estimates that are on the large side.
21 Bigger crush, deeper crush, wider crush so we get the highest
22 Delta V also making sure the weights do the same thing. And
23 divided by the shortest time possible of the impact. If this
24 impact time for some reason were longer, like I said, the
25 impact takes between 100 and 150 milliseconds, if we used the

1 150 milliseconds here, instead of getting 1.6, we'll get about
2 1.1. It would be less. If I put in less crush damage to the
3 vehicles, let's say, that instead of assuming half an inch of
4 crush, I assume no crush on the front of the Hyundai, the
5 Delta V would drop from 3.5 to about 3.0. Running that all
6 the way through, that would drop the G's down to about 1.4.

7 So in all cases everything is done to give a maximum
8 G's that this vehicle might have felt, and this is the MPV.
9 By the way, in comparison if I were looking at the Hyundai,
10 the Hyundai in the same collision would have felt almost
11 double that, so around I think it was 3.0. So size of the
12 vehicle makes a difference.

13 Q So, in fact, there was no damage to the Hyundai
14 makes a difference in your analysis?

15 A If I assumed no damage and we go to absolutely zero,
16 this number is going to drop.

17 Q But you assume some damage to the Hyundai when you
18 were looking at my pictures?

19 A That is correct.

20 MS. THOMAS: I have nothing further at the moment.

21 THE COURT: Wait a minute. Before you take the
22 easel away, Mr. Ahearn, do you have questions about that.

23 MR. AHEARN: Yes, I do. A lot of questions.

24 THE COURT: Bring the easel back.

25 Cross-examination.

CROSS-EXAMINATION

BY MR. AHEARN:

Q Now, you said something about if there is no damage to one of the vehicles, you are going to put a zero in somewhere and the V force is going to go down?

A Well, what happens is, for instance, of the Hyundai then the Delta V you see is three and a half miles an hour will drop down to about 3.2, but it will be lower. Once that becomes lower, you go through all the same equations, all the same calculations, and the G's will become lower.

Q What if there is no damage to the other vehicle, where does that go?

A If you assume there was no damage?

Q Yes.

A Well, you get to a point where there is no impact, but the allegation here is an impact occurred.

Q What if you have impact but no damage?

A Again, that was one of the conditions where I said within limitations, so I have to assume to be able to use the equations that I use. I have to assume damage occurred to at least one of the vehicles.

Q This is the calculation you have to use to get to the G force when you've got crush zones to measure on the

1 vehicles at the beginning?

2 A This actually -- how do I want to put this? To use
3 the equations, you have to have crush. If you have no crush,
4 the G's would be less than this. I guess that's the way I
5 want to say that so it's clear.

6 Q Do you recall in your deposition telling me to work
7 one of the formulas you used it took about a half an hour to
8 do that manually?

9 A Yes, that's correct.

10 Q Is this the formula?

11 A Oh, no.

12 Q What is that formula?

13 A I can show you.

14 Q Just describe what the formula is used for.

15 A For computing Delta V. I have a copy with me.

16 Q If I may follow you with the jury. This Delta V is
17 this first number at the top of your equation?

18 A That is correct. This is the set of equations.
19 This is actually -- that's the derivation of the equations
20 which is just a derivation from conservation of energy to
21 result in the determination of the energy related to crush,
22 first of all, and then the Delta V from that. So it's these
23 two equations marked one and two that would have to be solved
24 by me.

25 Q Those are the ones you said would take about a half

1 an hour by hand?

2 A That's correct, for each example.

3 Q Once you know what the crush zone is, then you can
4 calculate it with that formula and it takes about a half an
5 hour?

6 A That's correct.

7 Q And it takes into account all the laws of physics
8 and principals that are involved in determining G forces?

9 A That is correct. It would take everything for
10 getting the Delta V. What you've got in the Delta V, then you
11 see the equations up here.

12 Q Then you go through this to get to your G force?

13 A That is correct.

14 Q The smaller the Delta V gets, the smaller the G
15 force gets?

16 A Correct.

17 Q The bigger the Delta V gets, the bigger the G force
18 gets?

19 A Correct.

20 MR. AHEARN: I think I'm finished with this.

21 I'm not finished with the witness, though.

22 Q You have no medical training, correct?

23 A Correct.

24 Q You never saw the cars that were involved in this
25 accident, is that correct?

1 A Not beyond the photographs.

2 Q You never saw anything about those cars in other
3 photographs other than the ones that are here?

4 A That is correct.

5 Q So you never saw photographs, for instance, of the
6 under carriages of either cars?

7 A That is correct.

8 Q From whom did you get the photographs to make your
9 crush zone determination? Is that the right term?

10 A Crush coefficients.

11 Q From whom did you get the photographs to make --

12 A I'm sorry, crush measurements. Crush difference
13 comes from crash test data.

14 Q Crush measurements?

15 A Yes.

16 Q From whom did you get the photographs to make the
17 crush measurements?

18 A From counsel.

19 Q From whom did you get the vin numbers,
20 identification numbers for these vehicles?

21 A From counsel.

22 Q Did you talk to either of the persons that was
23 involved in the accident?

24 A No, I did not.

25 Q Do you know whether or not either of the vehicles

1 moved on the pavement with locked wheels, in other words,
2 what's referred to as skidding?

3 A No, I don't.

4 Q Do you have any information about how the occupants
5 of the vehicles, in particular Mr. Tittsworth, how he was
6 holding his body at the time of the accident?

7 A Not particularly.

8 Q The crash test data that you rely on, where do you
9 get that?

10 A I get it now from a compilation that's published by
11 Neptune Engineer.

12 Q This is not documentation or data you developed
13 yourself, is that correct?

14 A No, I don't. Actually I have it in both forms. I
15 found it easier to use his because his it printed more neatly.
16 I now use a three-ring notebook compiled and sold by Neptune
17 Engineering which consists of crash test data from NITSA,
18 National Highway Transportation Safety Administration;
19 Insurance Institute for Highway Safety; Transport Canada;
20 Accident Reconstruction Journal; and published crash test
21 reports from the Society of Automotive Engineers research
22 papers. I also have my own set of the same thing that I've
23 accumulated over the years. I think his might be more
24 complete.

25 Q Do you do crash tests yourself?

1 A No.

2 Q Have you ever done a crash test of a Mazda MPV?

3 A No.

4 Q Do you know how many Mazda MPV's were used in the
5 crash test study which you did use?

6 A I don't remember. It was at least -- I think it was
7 three, but it may have been more.

8 Q Do you know whether one of them was Mr. Tittsworth's
9 vehicle?

10 A I know it wasn't.

11 Q Was Ms. Robinson's vehicle used in the crash test
12 study of the crash test data of that vehicle?

13 A No. Similar yes, but not the vehicle.

14 Q And isn't it correct, sir, that the number that you
15 put in at the beginning of the formula has a significant
16 bearing on the number that you get at the end of the formula?

17 A Yes, absolutely.

18 Q This one if you put in, and you did put in as you
19 told us, put in a half inch as your crush zone?

20 A Crush measurement.

21 Q Your crush measurement you determined on this was a
22 half inch. With that you get 1.6 G's. You said something
23 earlier about if you jumped off the podium there, you might
24 have up to 10 G's?

25 A No, that was about 8 that your head would feel at

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1 the maximum.

2 Q If you have a crush measurement on Mr. Tittsworth's
3 Mazda MPV of one inch, what happens to the G force?

4 A If it had that, and if it had that for the entire
5 width and entire height, it would raise the G's by about a
6 tenth. It might not be as much as a tenth. It's between .05
7 and .1.

8 Q What was the width of the crash zone that you used?

9 A I used the fourth.

10 Q What was that?

11 A That was 72 inches.

12 Q That's the full length of the bumper?

13 A No, the bumper isn't that wide. The vehicle at the
14 widest part is where the wheel well flares, and the widest
15 part of the vehicle is 72 inches. But again for sake of being
16 conservative, I used full width in terms of crush, and that's
17 the maximum width.

18 Q This is for the sake the most it could have been?

19 A That's correct.

20 Q But it's not necessarily what it was in the
21 accident, is that correct?

22 A That is correct.

23 Q In fact, you know it wasn't what it was in the
24 accident?

25 A When I look at the photographs, I would estimate

1 that it's less than half of that.

2 Q And you looked at the photographs to estimate that
3 this crush zone was a half an inch, correct?

4 A No more than.

5 Q No more than?

6 A That is correct.

7 Q You did that quite literally by looking at the
8 photograph and saying that is a half an inch of crush?

9 A Just about literally, yes.

10 Q And you put that half inch into your formula, spent
11 a half an hour calculating it to come up with Delta V?

12 A I do it with a computer. It makes it user friendly,
13 but the equations are the same.

14 Q It's a very involved calculation, correct?

15 A It can be, yes.

16 Q Would it take me a half an hour to do a math problem
17 that was involved?

18 A If I do it by hand, yes it's very involved. If I do
19 it with a computer, even if I write up the same program on a
20 spread sheet, the inputs become relatively limited.

21 Q Did you write by hand or computer in this case?

22 A Computer.

23 Q Who programmed the computer for that formula?

24 A This one comes from Engineering Dynamics
25 Corporation.

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1 Q You didn't program it?

2 A I have validated it and verified it. It is the same
3 equations and same numbers. In other words, if I put the same
4 numbers in, I get the same results.

5 Q If you put a bigger number in, you get a bigger
6 result?

7 A If you put in a bigger crush if that's what you are
8 talking about.

9 Q What if your crush is up to two inches?

10 A Then you would expect the G's to go up to about .15
11 maybe .2.

12 Q What if it's six inches?

13 A Well, I haven't run that. Obviously I'm not sure.

14 Q Well, in your experience, do you know about what
15 range you get into it?

16 A Four, six inches of crush I would expect the G's to
17 go up .4, .5, somewhere in that order.

18 Q So at that point we're up to only about two G's?

19 A That's right.

20 Q So if the rear end of the car gets smashed in six
21 inches, we've only got two times gravity as the force
22 impacting on the vehicle? Is that what you are telling us?

23 A That is correct.

24 Q Which is still a lot less than stepping off the
25 podium?

1 A That is correct.

2 MR. AHEARN: May I approach for the picture?

3 THE COURT: Sure.

4 Q Sir, would you take one or more, if necessary,
5 pictures of the Mazda, the van, and show where on the picture
6 you assumed a half inch crush if you can point that out to me
7 and then to the judge and jury.

8 A I assumed it all the way across the bumper.

9 Q That's obviously more than half inch. That's got to
10 be the 72, that way?

11 A Yes.

12 Q Where is the half inch you refer to?

13 A It's not there. So I assumed there was a half inch
14 crush from the top of the bumper to the bottom of the bumper
15 all the way across. The only place I see anything in the
16 photograph, now that's another story, is down here just to the
17 left or what appears to be just to the left of the license
18 plate on the lower half of the bumper.

19 Q For the moment so we don't lose the jury, would you
20 turn it the other way and show it to them.

21 A I'm talking about this little section right here.

22 Q It's like a dip?

23 A You've got to remember, I'm averaging. So I'm
24 taking that the average crush is half an inch from the extreme
25 left side to the extreme right side of this bumper and from

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1 the top of the bumper to the bottom of the bumper. As you can
2 see, when you look at the photograph, if at the deepest
3 penetration it might be a half an inch in the center, but it's
4 certainly not at the whole thing.

5 Q What is it at the deepest part?

6 A It probably is about a half inch.

7 Q And again you are just literally estimating that
8 looking at this photograph?

9 A That is correct. I have examined a few thousand
10 cars the last 15 years.

11 Q And this isn't one of them?

12 A I probably have examined a few MPV's. I'm pretty
13 sure I have.

14 Q This one, you haven't examined this car?

15 A No.

16 MR. AHEARN: Your Honor, may I publish this to the
17 jury so they can keep with us for the moment?

18 THE COURT: Sure.

19 MR. AHEARN: Ladies and gentlemen, if you would take
20 a look and pass that around.

21 MR. WILLIAMS: Judge, I ask all the exhibits be
22 published to the jury.

23 THE COURT: Let the jury see all the photographs.
24 Do you want to see the little photographs?

25 MR. AHEARN: It doesn't make a difference. They are

1 duplicates.

2 THE COURT: The large will suffice.

3 MR. AHEARN: The little ones I maintain are sharper.

4 THE COURT: They can consider those any time you
5 feel it is appropriate, Mr. Ahearn.

6 MR. AHEARN: Thank you.

7 Q Mr. Cipriani, the bumper that you see in that
8 photograph has what, if I may for the moment, describe some
9 kind of a dip, that's the point the part you were pointing to
10 with your pen.

11 A A small indentation.

12 Q Is that indentation the half inch you are talking
13 about?

14 A For what I put into the calculations?

15 Q Yes.

16 A No, I have assumed a half an inch for the entire
17 width of the vehicle for the entire thing being pushed in a
18 half an inch.

19 Q So you are ignoring the fact that one little section
20 is pushed in more than the rest of it is?

21 A Not ignoring it, exaggerating it. See, if I only
22 assume that section which appears to be maybe two to three
23 feet worth at most, if I assume that much and it is pushed in,
24 say, 0, 0, 2, nice little wedge shape, the G's would be much,
25 much lower than 1.6. I'm giving everything to the upper end

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1 to give you and your client the benefit of the doubt in
2 evaluating the G's.

3 Q Why didn't you pick one inch?

4 A The simplest reason, I pick a number. I pick a
5 degree of crush that's going to exaggerate it, but I'm not
6 going to exaggerate it that much. In other words, I could
7 have assumed 12 inches of crush, but it's quite apparent
8 looking at the photograph that it's not anywhere near that.
9 To me it's nowhere near a half an inch all the way across. So
10 I had no reason to use one inch.

11 Q Well, why a half an inch? Why didn't you use really
12 what you thought was really the number?

13 A Because we'd be arguing the same point, wouldn't we?

14 Q I don't know.

15 MR. AHEARN: I have no further questions, Your Honor.

16 THE COURT: Redirect?

17 MS. THOMAS: Yes, Your Honor, briefly.

18
19 REDIRECT EXAMINATION

20 BY MS. THOMAS:

21
22 Q Mr. Cipriani, have your exaggerated assumptions, if
23 you will, covered the possibility that there might have been
24 undercarriage damage to this vehicle?

25 A Yes. Just so we're clear about that, in a way we

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1 are comparing the crush damage to the back of the MPV to the
2 crash test data. In simplest form in comparing apples and
3 apples, when the crash testing is done by the National Highway
4 Safety Transportation Administration, they don't identify the
5 individual component that broke. They identify the overall
6 effect in terms of crush in numbers of inches. I'm doing the
7 exact same thing. So we are doing the most direct comparison
8 between this vehicle and the crash test data.

9 Q Had there been undercarriage damage, would the crush
10 in your expert opinion on the bumper outside had been greater?

11 A If there had been anymore significant undercarriage
12 damage than the outer signs of it, it would have been greater
13 also.

14 Q Did you cover the possibility in your exaggerated
15 assumption for the benefit of plaintiff, did you cover the
16 possibilities that plaintiff would have been moving or
17 stopped?

18 A Basically that is irrelevant in the analysis when
19 it's done. The Delta V you see is the change of velocity. If
20 he's moving, the Delta V would be the same. If he's stopped,
21 the Delta V would be the same.

22 Q And that's because speed is not the same as Delta V?

23 A That is correct.

24 Q The Neptune Engineering source that you relied upon
25 that had a compilation of I believe it was crash test data, is

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1 that a source that's relied upon by experts in your field?

2 A Very much so.

3 Q The computer program you utilized in order to crunch
4 the numbers so you didn't have to spend a half an hour
5 deriving equations, is that a source typically utilized by
6 experts in your field?

7 A Yes.

8 Q In the cases that you mentioned that you studied
9 Mazda MPV's before, how many Mazda MPV's have you studied?

10 A I have studied between five and ten.

11 Q Are they similar to this?

12 A Similar.

13 Q In what ways?

14 A In that the bumper sticks out about the same from
15 the rear body. The width is generally the same. The same
16 general configuration.

17 Q My office told you generally how the accident
18 happened, true?

19 A True.

20 Q Did you confirm what my office told you by getting a
21 copy of the deposition of the plaintiff and reading it?

22 A Yes.

23 Q Did it confirm what my office told you?

24 A Yes.

25 MS. THOMAS: Nothing further. Thank you.

1 THE COURT: Recross?

2 MR. AHEARN: Yes.

3

4 RECROSS-EXAMINATION

5 BY MR. AHEARN:

6

7 Q When did you read the plaintiff's deposition?

8 A Yesterday.

9 Q That was after I took your deposition?

10 A That is correct.

11 Q Did you have the same opinion when I took your
12 deposition?

13 A Yes, nothing changed.

14 Q Didn't make any difference what he said about what
15 happened?

16 A That is correct.

17 Q Would it make any difference if you knew that the
18 car in this situation was moved, was at a stop and then moved,
19 and came to a stop again?

20 A No.

21 Q Wouldn't make any difference?

22 A No.

23 Q Wouldn't take any force to move that car than it
24 would to not move?

25 A Too many variables first of all to -- how should I

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1 say it? To calculate a Delta V from a separate set of
2 equations, which could be done if I knew a skid distance, for
3 instance, or something like that. No such information is
4 available. The Delta V we have and the G's that come from it
5 are all a result of crush or exaggerated crush damage and, no,
6 it makes no difference whether he was stopped, moving, or
7 pushed as a result.

8 Q And what you've done is taken the amount of crush
9 and backed that into how much force, correct?

10 A Essentially, yes.

11 Q And if I understand how this physics works, you
12 always have equal amount of forces, if you put a force onto
13 something, it's going to go off into that object and rebound,
14 that type of thing, correct?

15 A I think you are into Newton's second law which says
16 the --

17 Q Would you state the second law.

18 A The force is equal and opposite between the two
19 bodies when it occurs.

20 Q What does that mean practically?

21 A The force that's applied to the back of the MPV,
22 Mazda, total force is the same force that's applied to the
23 front of the Hyundai.

24 Q So some of that force if the vehicle is also moved
25 in the collision and you have a crush zone of a half an inch

1 that gives you a 1.6 Delta V, what about the force that it
2 took to move the vehicle? Isn't there more force there
3 somewhere?

4 A No.

5 Q So whether the vehicle moves or not you have the
6 same result?

7 A Yes.

8 Q So it was hit with the same force whether or not it
9 moves?

10 A Yes.

11 Q So the crush zone stays the same whether or not it
12 moves?

13 A Not the crush zone, the crush.

14 MR. AHEARN: Thank you. No further questions.

15 THE COURT: May the witness go?

16 MS. THOMAS: Yes, Your Honor.

17 THE COURT: Thank you, sir. You may go.

18 MS. THOMAS: The defense calls Dr. Peter H.
19 Abbrecht.

20 MR. AHEARN: Your Honor, before the next witness
21 begins, I do have a motion about this witness to make at
22 the bench.

23 THE COURT: Save your motion until later.
24
25

1 PETER H. ABBRECHT, a witness called by the defendant,
2 first being duly sworn, testified as follows:

3
4 DIRECT EXAMINATION

5 BY MS. THOMAS:

6
7 Q Good afternoon, Doctor. Would you please state your
8 full name for the record.

9 A Peter H. Abbrecht.

10 Q What is your profession, sir?

11 A I am a professor of medicine and physiology and
12 chairman of the physiology department at the Uniform Services
13 University of Health Sciences which is a department of defense
14 medical school.

15 Q Sir, I know it's not always easy to talk about one's
16 accomplishments in life, but would you discuss with me and
17 rather in some detail your educational background. Did you
18 receive an undergraduate degree of any sort?

19 A Yes, I received a bachelor of engineering degree
20 from Purdue University in 1952. That was in chemical
21 engineering. I put myself through school while working in the
22 engineering mechanics lab there which is where I developed a
23 lifelong interest in mechanics and initially applied to
24 concrete blocks but later applied to people.

25 Q Sir, what if any graduate work in that area did you

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1 do?

2 A I received a masters in chemical engineering from
3 the University of Michigan in 1953 and Ph.D in 1957. My work
4 there and research was in fluid mechanics.

5 Q Do you hold any other degrees, sir?

6 A Yes, I received the M.D. degree from the University
7 of Michigan in 1962.

8 Q Where did you do your internship, Doctor?

9 A University of California Hospital in Los Angeles,
10 California.

11 Q When was that, sir?

12 A 1962 through '63.

13 Q And your residency?

14 A University of Michigan medicine residency 1970 and
15 '72.

16 Q What if any other education do you have?

17 A Well, I also did a subspecialty training in
18 pulmonary disease. I did a fellowship in pulmonary disease at
19 the University of Michigan from 1974 to '75. I've also taken
20 a number of specialized courses in forensic pathology related
21 in particular to courses that deal with impact trauma, blood
22 trauma.

23 Q Are you board certified, Doctor?

24 A Yes, in internal medicine and pulmonary disease.

25 Q Do you hold any other licenses or certifications in

1 your profession?

2 A I'm licensed in medicine. I have an active license
3 in Michigan, inactive license in Maryland and California. I
4 also have a basic engineering license from Indiana.

5 Q What if any professional honors have you received?

6 A Well, I received both my engineering degree and my
7 medical degree with criminal distinction of bachelor's degree
8 and criminal for the medical degree. I've been elected to
9 several honorary societies. I received a research award from
10 the Michigan Heart Association for research that I did. I
11 received a career research award from the National Institutes
12 of Health for my research in bioengineering mechanics. I'm
13 listed in Whose Who in America and Whose Who in Science and
14 Technology.

15 Q I believe you mentioned the area in biomedical
16 engineering. Do you hold any positions in biomedical
17 engineering societies with that area?

18 A Yes, I was a charter member of the biomedical
19 engineering society and have been a member of the board of
20 directors a number of times.

21 Q Tell me what if any teaching type experience you
22 have in the field of biomedical engineering.

23 A I guess I should define biomedical engineering
24 because the term doesn't roll off everybody's tongue I guess.
25 Biomedical engineer is engineering principals and techniques

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1 and theory to either biological problems or medical problems.
2 That covers a whole range of different areas. It can be the
3 application of instrumentation to studying disease, for
4 instance, technology in the actuating imaging or something
5 like that. It can involve the application of the theory of
6 how symptoms perform, control theories, to a study of how
7 glucose is controlled in a diabetic. We've used it for
8 developing treatment for blood clots by determining from
9 computer technology what the best doses of anticoagulants
10 are. It can be the application of material science to
11 understanding biomaterials, why materials that are placed in
12 the body if you have an artificial hip, how it's going to
13 behave and how the body is going to treat it.

14 And then a very large area, which is my area of
15 specialization, biomechanics, which is really the study of
16 effects of forces upon living organisms. It can either be the
17 effect of force on a cell, tissue, heart, or upon the whole
18 body, or upon the spine. And I've been involved -- actually
19 one of my first programs in bioengineering was at the
20 University of Michigan back in the early 60's. I went back to
21 Michigan specifically to develop that program after I finished
22 my internship and ran as chairman for a few years. I also was
23 director of the physiology biomedical engineering program at
24 the National Institutes of Health, which I am sure some of you
25 are familiar with, but this program was involved very heavily

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1 in biomechanics and involvement of prosthetic devices,
2 artificial arms, legs, that sort of device. I've also been
3 editor of the annals of biomedical engineering which a major
4 component of that is biomechanics. I've been on the board for
5 about ten years of the Journal of Biomechanics. I'm currently
6 a member of the US National Committee on Biomechanics which is
7 made up of a group of people who have the role of establishing
8 priorities and research in biomechanics.

9 Q Do you have any specialty in biomechanics?

10 A Well, I've done research in a number of areas in
11 biomechanics, research on the forces required to injure the
12 neck and penetrate neck tissue. I'm a consultant to the
13 research development command on trauma and resuscitation.
14 We're currently doing research on the effects of acceleration
15 on the lung, in particular with respect to space flight and
16 what happens during launch, what happens to astronauts during
17 space flight. I've done research on the mechanical properties
18 of blood vessels.

19 Q I take it by that then you've published, Doctor?

20 A Yes, I've published I guess now probably about 90
21 major papers, presented papers, and probably 200 different
22 meetings, have several chapters in books.

23 MS. THOMAS: At this time I move to qualify Dr.

24 Peter H. Abbrecht as an expert in the field of

25 biomechanics, biomedical engineering and physiological

1 medicine.

2 THE COURT: Objection?

3 MR. AHEARN: Voir dire for me, Your Honor.

4 THE COURT: Yes.

5

6 VOIR DIRE EXAMINATION BY MR. AHEARN:

7

8 Q Doctor, do you have any specific training in
9 neurology?

10 A I have had rotation in my internal medicine in
11 neurology, and I've had responsibilities on neurology service.
12 Neurology is a fairly strong component of internal medicine.
13 I should mention also I am an attending physician and
14 consultant to Walter Reed in internal medicine and pulmonary
15 disease. I also was chief of the medicine clinic at the
16 University of Michigan for I think about four years, and a
17 very large number of the patients that came in had
18 neurological problems and low back problems. We treated some
19 of those, some of those we referred on to specialists.

20 Q How long ago was that?

21 A That was up to 1980.

22 Q Do you have any training in orthopedics?

23 A Not specifically. I attended workshops on the
24 spine. In fact, I'm going to be an instructor at the spine
25 workshop that the University puts on every year. I will do

1 that this year.

2 Q Have you done any surgery?

3 A I've done surgery, but not orthopedic surgery.

4 Q Have you ever done surgery on the spine?

5 A No.

6 Q In your recent studies in the pulmonary internal
7 medicine field on forces, have you been working mostly on soft
8 tissue or bone structures?

9 A It's been primarily soft tissue.

10 Q Have you ever conducted any crash tests or impact
11 tests with live people or dummies in vehicles?

12 A No.

13 MR. AHEARN: Your Honor, I would object to any
14 qualification of the doctor beyond that in pulmonary
15 internal medicine for medical expert. As an engineer, I
16 have no objection he is qualified as an engineer.

17 THE COURT: The court sees his testimony as that of
18 an expert in biomedical engineering and biomechanics.

19 MS. THOMAS: Thank you, sir.

20

21 DIRECT EXAMINATION (Cont.)

22 BY MS. THOMAS:

23

24 Q Dr. Abbrecht, you are familiar, are you not, with a
25 case involving Jeffrey Tittsworth and Stephanie Robinson?

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1 A Yes, I am.

2 Q What have you been asked to do regarding the
3 accident?

4 A I was asked to relate the amount of force which
5 might have been exerted on Mr. Tittsworth's body during the
6 accident between the type of injury which one might expect to
7 find with that type of force.

8 Q Are you familiar with Mr. Al Cipriani?

9 A Yes.

10 Q Are you familiar with the G force analysis Mr.
11 Cipriani conducted in this case?

12 A Yes.

13 Q Have you reviewed it?

14 A Yes.

15 Q With your training as a mechanical engineer, are you
16 familiar with the -- rather as an engineer, are you familiar
17 with the principals which underlie that analysis?

18 A Yes.

19 Q What else did you review in making your
20 determinations in this case?

21 A I reviewed the medical records that were provided to
22 me of Mr. Tittsworth. I also was provided with x-rays and MRI
23 of the lumbar spine, and I reviewed a deposition given by Mr.
24 Tittsworth.

25 Q You are familiar with Mr. Cipriani's opinion that

1 1.6 G's is the maximum G force to which Mr. Tittsworth in his
2 vehicle were exposed during the accident?

3 A Yes.

4 Q Do you have an opinion as to whether 1.6 G's force
5 can cause the injury Mr. Tittsworth sues for in this lawsuit
6 assuming that he has a herniated disk?

7 A Yes, I do.

8 Q What is that opinion, sir?

9 A My opinion is that actually the force of this
10 accident were not enough to cause any injury, and that they
11 were definitely not enough to cause a specific injury of
12 herniation of the L5 S1 disk.

13 Q Why do you say that?

14 A There are several reasons. One is the amount of
15 force. It was very, very small compared to what the human
16 body can tolerate. The forward acceleration of the car was no
17 more than 1.6 G's. Experiments were done with human
18 volunteers, and I should point out that one is not allowed to
19 do stuff with volunteers unless it is felt very safe to do
20 those studies. Studies have been done with human volunteers.
21 One was done with a group of people at 2.2 G's acceleration
22 from the rear. This was done by an outfit called Engineering
23 Dynamics Corporation, which actually those very tests were
24 demonstrated on 60 Minutes last Sunday. So if you saw that,
25 you know how they do the test. And these people had MRI's,

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1 the same test which Mr. Tittsworth had to identify a problem
2 with the disk. They had these MRI's before the studies and
3 it wasn't that they received one impact, but they received
4 several impacts at different times. They also had MRI's after
5 the study and were followed very carefully for a year after
6 the studies. They had absolutely no ill effects from these
7 impacts. They might have had a headache for a few seconds,
8 but they in particular had no problem with their necks.

9 These experiments were really aimed at seeing what
10 would happen with a neck because it's known that the neck is
11 much more susceptible to injury in a rear-end collision than
12 the back. In fact, it's almost unheard of. I don't know
13 where there have been any significant lumbar injury where
14 there was a neck injury. They look specifically at the neck,
15 but there clearly were no low back study. There were other
16 studies of 3.2 G's volunteers with no problems. In terms of
17 the size of the force, there wasn't enough force to cause any
18 injury.

19 Now, when we come to the back, to the low back, we
20 have to consider not only the size of the force but the
21 direction of the force. Could I -- Judge, I have a model of
22 the spine. I'd like to show the jury that so I could explain
23 what my opinion is based on, what my analysis is.

24 THE COURT: Objection?

25 MR. AHEARN: No objection.

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1 Q Mr. Cipriani, while you are getting your model, may
2 I ask you these studies you referred to, are they typically
3 the kinds of studies relied upon by experts in your field?

4 A Yes, they are. They are the basis for opinions. I
5 have actually used them for a number of computer simulations
6 of the spine.

7 THE WITNESS: May I approach the jury?

8 THE COURT: Let counsel have an opportunity to
9 get over there and let me go as well so I can see what
10 you are saying.

11 A The area that we're interested in is this lowest
12 disk down here. This is the L5 vertebra and the sacrum. And
13 with the nerve root coming out, which presumably this would
14 impinge a ruptured disk. And these are the inner vertebral
15 disks. They look somewhat like this. They are sort of
16 rubbery. Unfortunately, as you get older, they get a lot
17 stiffer and sort of turn to leather instead of rubber. These
18 are the disks which can rupture under some condition.

19 What I'd like to point out is there has been a lot
20 of research gone into trying to figure out what will make
21 these disks rupture, what kind of forces will make them
22 rupture, in particular with relation to what happens in forces
23 of automobile accidents. So people have taken sections of the
24 spine, this is in cadavers, you can't do this with humans, and
25 tried to produce the kind of injury and realized the injury

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1 which we're seeing, the one that causes problems with nerves
2 is when you squeeze out -- let's look at the disk here. When
3 you squeeze out the disk from the back because if it squeezes
4 out the front, it's not going to impinge on a nerve root. So
5 it will either impinge on the nerve root or spinal cord coming
6 down. So the people have tried to produce that kind of injury
7 by putting forces on the spine. And they will take out a
8 piece of the spine and put it in a machine which can squeeze
9 it, pull it, and turn it, and do various things. The first
10 thing they've found is if you squeeze a spine just straight
11 down, that does not cause injuries to the disk. What it will
12 actually do is break the bone before it will break the disk.

13 The only way they have been able to produce
14 herniation of a disk is by applying forces by bending the
15 spine forward and then also squeezing down on it, and
16 squeezing down with anywhere from 500 to 2,000 pounds. It
17 takes a tremendous amount of force to squeeze this disk. The
18 reason for this is what happens is basically you've got a
19 jelly doughnut, and you are squeezing it and finally part of
20 the disk comes apart, the outside of the doughnut, and then
21 the jelly squeezes out. What has to happen is first of all
22 the back part of this disk is torn. As we bend this disk, as
23 we bend this spine forward or as we flex it, that stretches
24 the back part of this disk, this outer rim, which is the outer
25 part of the doughnut. So that stretches and tears it and

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1 weakens it. And then if we push down on the disk, there is a
2 tremendous amount of force from pressing the disk and now the
3 jelly squirts out through the back of the disk where it's been
4 torn. So that's the mechanism by which the disk fails. The
5 important thing to realize is it requires a combination of
6 flexion bend forward plus being squeezed down.

7 Q Could Mr. Tittsworth have been exposed to that kind
8 of motion, compression, and flexion?

9 A No.

10 Q How come?

11 A Absolutely not. And the reason is what happens in a
12 rear-end collision, of course, is the whole body is moved
13 forward because the seat -- what really happens is the car
14 moves forward and the body moves backward into the seat
15 because the body has noursei. As you start pushing on the
16 spine by both the seat and the seatback, you are tending to
17 accelerate the whole spine forward. But the net effect is
18 that the spine is being pushed back into the seat because the
19 seat is moving and the spine can't move as fast. So there is
20 nothing -- when I have a seat, a seatback, there is nothing to
21 cause spine number one to be bent forward. If anything, there
22 could be a slight amount of backward bending because if the
23 seat pushes and your pelvis goes forward and the seatback is a
24 little bit soft, then you can bend the back and go into the
25 seat a little bit, but you will go backward.

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1 Studies at this level of acceleration shows there is
2 no movement like that. It's just too low amount of
3 acceleration. That would be exactly the opposite direction as
4 far as forward and backward. There is nothing if I'm pushing
5 uniformly along the spine with the seatback, there is nothing
6 to cause compression. These 500 or 2,000 pounds that is
7 required -- by the way, the studies that were done, were done
8 with disks that were injured. They degraded these disks. And
9 they were anywhere from normal disks to the very worse disks.
10 There were something like I think 70 spines that were examined
11 and exactly the same thing held up whether it was a normal
12 disk or very badly disk. They only failed if there was
13 flexion, if there was a lot of forward bending and which
14 stretches the back of the disk and there was pressure coming
15 down, compression to squeeze it out. There is no way you can
16 have a disk rupture by having a force applied on the back.

17 Q Doctor, I know you testified it's your opinion he
18 didn't have forward flexion and compression and couldn't have
19 injured his disk in this accident because of the forces in the
20 vehicle?

21 A That's right.

22 Q Assume for a second that he did, would it have hurt
23 him right then? In other words, would he have experienced
24 pain at the scene of the accident?

25 A You are saying to assume there is some other thing

1 than the forces? Because I can't see how it would happen with
2 the accident.

3 Q No, I'm saying assume generally Mr. Tittsworth
4 herniated this disk in this accident. If he had, would he
5 have experienced pain at the scene of the accident?

6 MR. AHEARN: Your Honor, I'm going to object. He
7 already testified he can't accept that assumption to give
8 an opinion.

9 THE COURT: Respond to the objection.

10 MS. THOMAS: He accepted it in his deposition.

11 Q I'm asking for something unrelated to this
12 description you are engaged in here. I'm asking for a general
13 assumption that Mr. Tittsworth herniated his disk would he
14 in --

15 THE COURT: You are responding to the objection not
16 putting another question.

17 MS. THOMAS: I'm asking him to respond to a
18 different generalization.

19 THE COURT: I'll rule on the objection first. Do
20 you wish to be further heard?

21 MR. AHEARN: No, Your Honor.

22 THE COURT: Overruled.

23 A Well, I would expect that if the accident caused a
24 rupture of a disk that I would see -- and if it actually
25 caused a rupture of a disk to the point where it was going to

1 cause pain, I would expect to see pain at that time, not
2 afterward.

3 Q What's the disk made of? What's the material in
4 there?

5 A It's made of two different things. One is there is
6 an outer ring which is the outside of the jelly doughnut,
7 which is a fibrous material. It's almost like cartilage.
8 It's a very tough material, which is hard to rupture. The
9 inside is what we call microprotein, which is a softer tissue,
10 which is like jelly. It has a composition which is not too
11 much different from jelly.

12 Q The studies you relied on here in your testimony,
13 the second studies, were they relied upon by experts in your
14 field?

15 A Yes, they were definitive studies. As I say, I've
16 used those and other studies and calculated the force on disks
17 to show that even for flexion you need many, many G's in order
18 to cause an injury. There is one other point I would make,
19 and that is in terms of compressive forces, and we've said you
20 really need a combination of compression flexion, that every
21 time we take a step, we put a force on these disks of
22 something like anywhere from 1 and a half to 2 and a half
23 G's. If we jog, we put 5 G's on those disks in a compressive
24 mode. So that all day long we are putting loads on which are
25 a greater magnitude and which are in the direction that would

1 cause injury which there is no way the force applied across
2 the back like this could cause flexion.

3 Q Have you finished with this portion of your
4 testimony?

5 A Yes.

6 Q You can return to the stand. Doctor, if I told you
7 Mr. Tittsworth had his headrest up and his seat belt on, would
8 it change your opinion?

9 A No, I think -- I wouldn't expect him to have an
10 injury anyway. Certainly headrests and seat belts are
11 helpful, they were related primarily -- the headrest is
12 related to neck injury, which is the typical injury in a
13 whiplash kind of rear-end collision. So it wouldn't have had
14 any effect on this.

15 Q If I ask you to assume that Mr. Tittsworth had a
16 herniated disk prior to this accident which was not giving him
17 problems, was asymptomatic, do you have any opinion as to the
18 forces in this accident could cause that disk to flare up or
19 become symptomatic?

20 A Yes, I have an opinion.

21 Q What is it?

22 A My opinion is they could not have for the reason
23 which I have already said. They were in the wrong direction
24 to cause the injury. They are way below. Even in magnitude,
25 they are way below what is experienced if you are running.

1 There is a way we have in biomechanics in resolving forces,
2 in other words, if I have a force primarily in a certain
3 direction, how much force is adding in another direction, if
4 it's primarily in a certain direction? And here we're
5 probably talking about a compressive force that was maybe a
6 hundredth of a G. If this thing was not exactly straight on,
7 we could have a hundredth of a G, which is compared to 1 and a
8 half to 2 and a half G's just walking.

9 Q In regards to what you reviewed in order to make
10 your determinations, Doctor, did you review the pictures of
11 the vehicles?

12 A Yes, I did.

13 Q Even if you did not know the exact amount of G's in
14 the accident, based on your training and years of experience
15 as an engineer, could you look at the pictures without knowing
16 the G's and form an opinion as to whether Mr. Tittsworth could
17 have herniated a disk in that accident?

18 A Yes.

19 Q What would that opinion be?

20 A I would have placed the acceleration of the vehicle
21 right around where Mr. Cipriani calculated, somewhere in the 1
22 to 2 G range, and he would not have had any injury from it,
23 my examination of the photos.

24 Q In cases which you reviewed where there was a
25 potential for injury, was the crush damage in your opinion

1 greater than the crush damage depicted in the pictures here?

2 A Yes, it would have to be significantly greater.

3 Q May I ask you to take a look at the pictures in
4 front of you. Have you seen those pictures, Dr. Abbrecht?

5 A I've either seen these or very similar ones. I've
6 seen the dent in the bumper, whether these are the identical
7 ones, I don't know.

8 Q Have you seen these, sir?

9 A Right, I've seen this one, which I guess is the same
10 as this one here.

11 Q Have you seen the others, sir?

12 A I have not seen the front views of the Hyundai
13 before.

14 Q Does that change your opinion?

15 A No.

16 Q Would you please identify just for clarity of record
17 the pictures you hold in your hand by the tags on the back of
18 them.

19 A Well, they are Defendant's Exhibit D, A, C, B, E, H,
20 G, and F.

21 Q And the ones you testified to previously that are in
22 the plastic?

23 A These are just listed exhibits with Cipriani's name
24 on this, 2, 4, 6, 3, 5, and 1.

25 Q Now, Doctor, my office made you aware generally of

1 how the accident occurred, true?

2 A Yes.

3 Q Did you later confirm how the accident occurred by
4 virtue of Mr. Tittsworth's deposition being sent to you?

5 A Yes, I did read the deposition.

6 Q The opinions that you've expressed here today,
7 Doctor, do you hold those opinions to a reasonable degree of
8 biomedical certainty?

9 A Yes.

10 Q Do you hold them to a reasonable degree of
11 engineering certainty?

12 A Yes.

13 MS. THOMAS: Nothing further.

14 THE COURT: Cross-examination?

15 MR. AHEARN: Yes, Your Honor. Thank you.

16

17 CROSS-EXAMINATION

18 BY MR. AHEARN:

19

20 Q Doctor, you did not see the accident, isn't that
21 correct?

22 A Yes, that's correct.

23 Q You did not examine Mr. Tittsworth at any point, is
24 that correct?

25 A Correct.

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1 Q The only pictures you have seen are these or
2 substantially similar pictures of these now of the MPV?

3 A Yes.

4 Q Now, when did you read Mr. Tittsworth's deposition?

5 A Today.

6 Q Just before you came into court?

7 A Yes.

8 Q And at the time you gave your deposition, were your
9 opinions any different than they were today?

10 A No.

11 Q At the time you gave your opinions in the
12 deposition, you had not read Mr. Tittsworth's deposition,
13 correct?

14 A That's correct.

15 Q So it doesn't make any difference to your opinion
16 anything about how the accident occurred, is that correct?

17 A No, that's not correct. But the information that I
18 had was that he was basically waiting to make a turn and he
19 was rear ended. There is only about two sentences in the
20 deposition which say exactly the same thing. The information
21 that was given to me beforehand was identical to what's in the
22 deposition.

23 Q What was the information that was given to you about
24 how the accident happened?

25 A That he was sitting in, I believe, a parking lot

1 waiting to make a turn and was rear ended by the other
2 vehicle.

3 Q Any other information?

4 A That's basically it.

5 Q Do you know what seat he was sitting in?

6 A He was the driver.

7 Q How do you know that?

8 A That information comes from the medical records.

9 And the medical records all of them state he was restrained
10 driver, MBA, and so on. So I did have other information in
11 addition to the information that was provided to me.

12 Q Do you know what position his body, his torso was in
13 at the time of the impact?

14 A I don't know that specifically.

15 Q Do you know whether his body was against the seat or
16 away from the seat?

17 A I don't know.

18 Q Do you know whether his head was turned left, right,
19 or straight ahead?

20 A I don't know that, and I haven't investigated those
21 because they would have no affect on my opinion.

22 Q Do you know whether his arms were raised or lowered?

23 A No.

24 Q Do you know whether the brake of his vehicle was
25 applied or not applied?

1 A I don't recall.

2 Q Do you know whether the vehicle was moved because of
3 the impact or not moved because of the impact?

4 A No.

5 Q Now, you testified that you looked at the pictures.
6 And looking at those pictures, they are enough to determine
7 there was not enough force, correct?

8 A They were enough for me to bracket the acceleration
9 rate. And the acceleration even if I -- I could not come up
10 with 1.6 G's exactly. As I said, I would estimate a low of 1
11 and high of 2. Certainly Mr. Cipriani's are more accurate.
12 And also as I'm sure he has explained his era is very much on
13 the conservative side. So that 1.6 G's is a maximum. It's
14 probably much less than that. But having done a large number
15 of these, having examined a number of vehicles, having gone
16 through the calculations, I have a reasonably good idea, a
17 very good idea what kind of accident would cause any injury.

18 When we're talking any injury, we're talking about
19 the classical whiplash cervical spine injury. It's some
20 tearing of the soft tissue of the neck, not even a ligamentous
21 injury. And that amount of force to produce that is so far
22 below what would be required for lumbar injury that it just
23 means there is absolutely -- even if there was potential
24 cervical strain, it would be way below what would be required
25 for lumbar injury. I am well aware that this accident and

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1 that amount of damage would not expect a cervical strain.

2 Q My question to you, though, Doctor, is from the
3 photographs alone, can you reach that opinion?

4 A Yes.

5 Q So you don't need Mr. Cipriani's calculations,
6 correct?

7 A I do not need his calculations to say from the
8 damage to the vehicle that there is absolutely no way, there
9 is zero way that there could have been enough force to have
10 caused a herniation of a L5 S1 disk.

11 Q So your opinion this morning is not based in anyway
12 of his calculations?

13 A I have used his calculations, but I could
14 independently from my experience say there was not enough
15 force in this accident to cause a herniation of a lumbar disk.

16 Q From what do you arrive at that opinion, what
17 factual information, photographs?

18 A From this photograph and from having looked at
19 numerous other photographs, having looked at calculations of
20 speeds, having looked at the police records, what the speeds
21 were, having looked at medical records of people who were in
22 vehicles who I had photographs of.

23 Q You talked a moment ago about cervical strain
24 whiplash. That's a different injury than a lumbar herniated
25 disk, is it not?

1 A Yes, sir, it's an injury that happens much more
2 frequently. It happens frequently from moderate to severe
3 rear-end collisions. It doesn't happen at the collision of
4 this magnitude.

5 Q A cervical injury could not have occurred at this
6 magnitude to use your word?

7 A That is correct.

8 Q What magnitude would it take to have a cervical
9 injury?

10 THE COURT: Is that relevant?

11 MR. AHEARN: I'm trying to determine what the
12 relative amount of force --

13 THE COURT: We're not concerned with a cervical
14 injury. We're concerned with a lumbar injury. If you
15 want to put that question, go ahead.

16 Q How much force would it take to cause a partial
17 herniation of a disk at L5 S1?

18 A If it were a frontal impact, we're probably talking
19 about something like, oh, 20 to 30 G's. It depends. If a
20 person has a lap belt or shoulder harness, even at 30 G's it
21 would be unlikely to happen. Certainly 30 G's would not
22 produce a prolapse or herniation of lumbar disk if it were a
23 rear-end impact because that 30 G's translates into 0 G's in
24 making the spine become compressed and flexed.

25 Q What if the driver's position is higher than the

1 line of impact or elevated?

2 A It would still not make any difference because his
3 back would still -- the lower back would still be supported by
4 the seat back.

5 Q Would it be your position that you can't rupture a
6 disk in a rear-end collision?

7 A I have never known of a rear-end collision in which
8 a disk is ruptured. And we have seen a lot of patients with
9 bad back problems when I was chief at the clinic. Having
10 taught medical students for 30 years and just giving an exam
11 where the students claim I'll never say never, I mean, there
12 is maybe one in a billion chances you can do something. It's
13 never impossible.

14 Q If 30 G's is not enough?

15 A I can't give you an exact value. I'm saying that's
16 probably the threshold. Because 10 G's is the point at which
17 you start getting just a little bit of ligamentous tearing on
18 the cervical spine. That's not a disk injury. It would take
19 probably 30 G's conceivably to get a disk injury on the
20 cervical spine. And the cervical spine is very vulnerable
21 because what happens, and I don't want to bore people, what
22 happens in a whiplash --

23 Q Doctor, if I may, we're not talking whiplash. As
24 the judge pointed out, we're talking about a lumbar.

25 A This essentially is a whiplash for the lumbar spine,

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1 the difference is there is very little whipping. The same
2 thing happens if you are hit on the bottom of the seat. If
3 anything, the back tends to move back in the seat. But the
4 seat restrains the movement of the back; whereas, if you are
5 talking about the neck, the shoulders move forward and the
6 neck can move backwards so you get a lot of bending, twisting,
7 of the head. You can't have that with the low back because
8 the seat prevents it.

9 Q What if your back, low back is away from the seat as
10 if you are sitting up and leaning forward, couldn't it happen
11 then, couldn't you get an extension?

12 A You could but we just pointed out that you don't
13 get -- the mechanics. This is what I try to explain. I don't
14 know how to do it better. The mechanics are such that I'm not
15 going to get a real extrusion of that disk by having an
16 extension. It doesn't matter how far forward he was sitting.
17 He's got to be going forward. And in the impact, the only
18 forces which are acting are forces which are going to make him
19 move relatively back towards the seat. So he can't have the
20 forward flexion, and it's been shown definitively that you
21 don't get a rear herniation of a disk by going back in the
22 seat no matter what the force is.

23 Q So your opinion is at no force could you have this
24 kind of injury in a rear-end collision?

25 A I'm not going to say no force because I think there

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1 is a place at which you can tear the body apart. That
2 certainly happens. If a person crashes an airplane and a body
3 is torn apart so literally, you find the torso in pieces, you
4 can certainly injure a disk. But I'm saying the sort of
5 things that happen in rear-end collisions, you are not going
6 to have it.

7 Q Doctor, let's talk for a moment of degeneration of a
8 disk. That's something that occurs with time, correct, you
9 were talking about a disk turning. It weakens, do they not?

10 A They probably do. Again, the study which I
11 mentioned showed there may be -- there is a certain point in a
12 disk degeneration where it may be 10 or 15 percent weaker than
13 normal, and it goes the other way. That's why, actually
14 people roughly Mr. Tittsworth's age, because they have young
15 disks that haven't turned to shoe leather, and after a period
16 of time they become more resistant. So there is a small
17 tendency for weakness.

18 Q You don't maintain that he did not have a ruptured
19 disk at least at the time the MRI was taken?

20 A I've looked at the MRI and I agree with the reading
21 that there certainly was a bulging of a disk. Whether there
22 was a free fragment or not, I don't know. Different doctors
23 interpret that differently. The surgical report just says
24 there was a large herniation of the disk. So I believe he had
25 a herniated disk.

1 Q That injury you saw on the MRI would be consistent
2 with having pain, would it not?

3 A There was a study in the New England Journal last
4 May that showed pictures very similar to this where people did
5 not have pain. So it could be associated with pain, but not
6 guarantee there was pain.

7 Q You showed the jury when you had the model up here
8 if that had happened, Mr. Tittsworth would have felt the pain
9 right away?

10 A I believe if you read the transcript back, I believe
11 I said if there was enough herniation to cause pain, he would
12 have had it right away.

13 Q Do you know whether there was enough herniation
14 shown in the MRI to cause pain?

15 A You cannot see pain on an MRI. In fact, I'm
16 somewhat surprised he didn't have a myelogram computed
17 tomography. That's usually done before they go ahead and do
18 the procedure because that way the surgeon has a better idea
19 what he's going to find. I guess that's another issue.

20 Q But you are not a neurosurgeon, correct?

21 A That's correct.

22 MR. AHEARN: I have no further questions. Thank you.

23 THE COURT: Redirect?

24 MS. THOMAS: I have nothing further, Your Honor.

25 THE COURT: May the doctor be excused?

1 MS. THOMAS: Yes, Your Honor.

2 THE COURT: Thank you very much. You are free to
3 go.

4
5 (Discussion held between Judge and Counsel outside
6 of the jurors. The first day of this trial ended and
7 commenced on Monday, March 20, 1995 at 8:30 a.m.)

8
9 THE COURT: Who is your next witness?

10 MR. AHEARN: Mr. Tittsworth in rebuttal. He will
11 also be my only witness.

12 THE COURT: You can go ahead and take the witness
13 chair if you'd like, Mr. Tittsworth.

14 Plaintiff may proceed by way of rebuttal.

15 MR. AHEARN: Thank you, Your Honor.

16
17 JEFFREY A. TITTSWORTH, having previously been sworn,
18 testified in rebuttal as follows:

19
20 DIRECT EXAMINATION

21 BY MR. AHEARN:

22
23 Q Mr. Tittsworth, from the date that Ms. Robinson hit
24 you in that parking lot, to your knowledge has your car been
25 struck by any other vehicle?

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1 A No, it has not.

2 Q To your knowledge, has anything hit your vehicle in
3 the rear bumper?

4 A No.

5 Q Is the damage portrayed in those pictures the damage
6 that was there immediately after the accident at the scene of
7 the accident on the 13th of January?

8 A Yes.

9 Q Now, on the 15th of January approximately -- not
10 approximately, two days after the accident, were you at any
11 point in the day parked in the shopping center parking lot
12 where Ms. Robinson's mother works?

13 A No, I was not.

14 Q Was there a point during the day that you might have
15 been close to that area of town?

16 A At one time in the day I went to the Giant grocery
17 store to pick up a prescription.

18 Q Where is that?

19 A It's across the street from that shopping center.

20 Q In another shopping center?

21 A In another shopping center.

22 Q How long would you have been there?

23 A A few minutes.

24 Q What was the value of the damage to your car?

25 A Approximately \$400.

1 Q What items had to be fixed according to the
2 estimate?

3 A The bumper had to be replaced. The u-bar had to be
4 replaced. There was a few other things, nuts and bolts. I
5 can't remember.

6 MR. WILLIAMS: Your Honor, I think I'm going to
7 object on the basis of his opinion testimony as to what
8 some person in a body shop was expected to do. It's my
9 understanding the car was never repaired. If he was
10 talking about what he had replaced, that would be one
11 thing. But if he was talking about what someone else
12 told him needed to be done, I would object to that.

13 THE COURT: His answer related to both dollars and
14 cents and also to parts. I'll sustain the objection as
15 to dollars and cents and what the cost might have been to
16 repair. The Court rules that to be inadmissible. The
17 jury will disregard that portion of his answer that
18 related to what particular body parts were damaged and/or
19 replaced. The objection is overruled as to that.

20 Q Mr. Tittsworth, have you personally inspected that
21 bumper itself since the accident looking at the damage you
22 maintain occurred in that accident?

23 A Yes, I have.

24 Q Did you take any measurements yourself?

25 A Yes, I did.

1 Q What did you determine?

2 A I measured two things. I measured the depth of the
3 bumper damage and I measured that to be two and an eighth to
4 two and a quarter inches, not the half an inch we heard. In
5 addition, I measured the deformation of that u-bar that was
6 bent and it was squashed approximately one and a half inches.

7 Q From the date of the accident until this trial, has
8 anybody to your knowledge to you, has anybody told you, that
9 there has been a question as to whether that damage occurred
10 in that accident?

11 A No.

12 MR. WILLIAMS: Your Honor, I'm going to object to
13 that question. What does that mean exactly?

14 THE COURT: Sustained. Jury will disregard.

15 Q Between the accident and feel of the first pain that
16 you testified to Friday that occurred following this accident,
17 did you lift anything heavy?

18 A No I did not.

19 Q Did you do any jogging?

20 A No.

21 Q Did you sneeze or cough?

22 A No, I did not.

23 Q Did you throw yourself in a chair?

24 A No, I did not.

25 Q Did you do anything else that in your mind caused

1 any type of impact to your body?

2 A No.

3 MR. AHEARN: I have no further questions, Your Honor.

4 THE COURT: Cross-examine?

5
6 CROSS-EXAMINATION

7 BY MR. WILLIAMS:

8
9 Q Mr. Tittsworth, if I understand correctly, you are
10 telling the jury on January 15, 1993, over two years ago, that
11 you recall that you did not sneeze or cough?

12 A Yes, sir. I was asked whether I remembered sneezing
13 or coughing. My answer was no.

14 Q You don't remember whether you did or not?

15 A I don't remember sneezing or coughing.

16 Q And you are also telling this jury that you remember
17 on January 15th that you were only in that parking lot for a
18 few minutes when you went to Giant Food and that was over two
19 years ago?

20 A The other parking lot, yes, sir.

21 Q And you recall that specifically?

22 A Yes.

23 Q Is there any reason you recall that specifically or
24 is it just your memory?

25 A Because of my injury, I recall going to my

1 physician, going to get an x-ray. And when I was at my
2 physicians', I received a prescription for an
3 anti-inflammatory and muscle relaxant. I do not drive under
4 any condition with any kind of drugs in my body, and I was in
5 pain. I wanted to take that prescription as soon as possible.
6 So when I was at a position I could pick up the prescription,
7 I picked it up and went home that day.

8 Q Why is it you remember you didn't sneeze or cough
9 that day?

10 A My understand of the question was do you remember
11 sneezing or coughing, and the answer is no.

12 Q But are you telling the jury today that you
13 unequivocally did not sneeze or cough or are you telling them
14 you don't remember sneezing or coughing?

15 A I'm telling you I do not remember sneezing or
16 coughing.

17 Q So it is possible you did sneeze or cough but you
18 don't remember?

19 A Could be.

20 Q Sir, do you have a photograph of this u-bolt you are
21 talking about?

22 A No, I don't.

23 Q This is the u-bolt you are referring to that was
24 damaged on your van?

25 A Yes, a u-bar.

1 Q This measurement you took, this was something you
2 took over the weekend?

3 A No, I had taken it a couple of times.

4 Q When was that?

5 A As soon as -- approximately two weeks ago was the
6 first time and a little more precisely a week ago.

7 Q This is something you have recently done?

8 A Yes.

9 Q So two, almost two and a half years ago when this
10 accident happened, you did not measure it at that point?

11 A No, I did not.

12 Q In 1994 you did not measure it either?

13 A No, I did not.

14 Q This was just a couple weeks ago was the first time?

15 A Yes.

16 MR. WILLIAMS: Thank you.

17 THE COURT: Redirect?

18 MR. AHEARN: Nothing, Your Honor. Thank you.

19 THE COURT: Thank you, sir. You may step down.

20 THE COURT: Any other evidence by way of rebuttal?

21 MR. AHEARN: That's all the evidence, Your Honor.

22 THE COURT: Any rebuttal?

23 MS. THOMAS: No, Your Honor.

24
25 (Jury out. Whereupon, the Judge goes over jury

1 instructions with Counsel and are read to the jury as
2 follows:)

3
4 THE COURT: Ladies and Gentleman of the jury, you
5 have heard the evidence. I'm now going to read to you
6 the principals of law that you should apply to the
7 evidence that you've heard. You are not going to be able
8 to remember everything I'm about to read to you, so
9 you'll be able to bring these instructions to your jury
10 room with you, and you should refer to them during your
11 deliberations. They are to be considered together as a
12 whole.

13 You are instructed that you are the judges of the
14 facts, credibility of the witnesses, and the weight of
15 the evidence. You may consider the appearance, manner of
16 the witnesses on the stand, their intelligence, their
17 opportunity for knowing the truth and for having observed
18 the things about which they testified, their interest in
19 the outcome of the case, their bias, and if any have been
20 shown, their prior inconsistent statements or whether
21 they knowingly testified untruthfully as to any material
22 fact in the case.

23 You may not arbitrarily disregard believable
24 testimony of a witness. However, after you have
25 considered all the evidence in the case, then you may

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1 accept or discard all or part of the testimony of a
2 witness as you think proper.

3 You are entitled to use your common sense in judging
4 any testimony. These things and all the other
5 circumstances in the case you may determine which
6 witnesses are more believable and weigh their testimony
7 accordingly. Any fact that may be proven by direct
8 evidence may be proven by circumstantial evidence. That
9 is, you may draw all reasonable and legitimate inferences
10 and deductions from the evidence.

11 You must not consider any matter that was rejected
12 or stricken by the Court. It is not evidence and should
13 be disregarded.

14 The amount sought is not evidence in this case. You
15 should not consider it in arriving in the amount of your
16 verdict, if any.

17 In considering the weight to be given to the
18 testimony of an expert witness, you should consider the
19 basis for his opinion and the manner by which he arrived
20 at it and the underlying facts and data upon which he
21 relied. You must not base your verdict in any way upon
22 sympathy, bias, guess work, or speculation. Your verdict
23 must be based solely on the evidence and the instructions
24 of the Court. Your verdict must be based on the facts as
25 you find them and on the law contained in all of these

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1 instructions.

2 The issues in this case are, one, was the defendant
3 negligent; two, if she was negligent, was her negligence
4 a proximate cause of the accident; three, if plaintiff is
5 entitled to recover, what is the amount of his damages.
6 On these issues the plaintiff has the burden of proof.
7 Your decision on these issues must be governed by the
8 instructions that follow: you shall find your verdict for
9 the plaintiff if he has proven by the greater weight of
10 the evidence that, one, the defendant was negligent; and,
11 two, the defendant's negligence was a proximate cause of
12 the accident in damages. You shall find your verdict for
13 the defendant if the plaintiff has failed to prove either
14 or both of the two elements above.

15 The greater weight of all the evidence is sometimes
16 called the preponderance of the evidence. It is that
17 evidence which you find more persuasive. The testimony
18 of one witness whom you believe can be the greater weight
19 of the evidence.

20 Negligence is the failure to use ordinary care.
21 Ordinary care is the care a reasonable person would have
22 used under the circumstances.

23 The plaintiff has the burden of proving by the
24 greater weight of the evidence that the defendant's
25 negligence proximately caused the plaintiff's injuries.

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1 The fact that there has been an accident and that Jeffrey
2 Tittsworth was injured does not in and of itself entitle
3 him to recover. Jeffrey Tittsworth has the burden of
4 proving by the greater weight of the evidence that
5 Stephanie Robinson was negligence, that her negligence
6 was the cause of Jeffrey Tittsworth's injuries.

7 If Jeffrey A. Tittsworth's vehicle was lawfully
8 stopped in its lane of travel and was struck from the
9 rear, you may find that Stephanie N. Robinson was
10 negligent unless you believe from other evidence that
11 Stephanie N. Robinson was not negligent.

12 A proximate cause of an accident, injury, or damage
13 is a cause which a natural and continuous sequence
14 produces the accident, injury, or damage. It is a cause
15 without which the accident, injury, or damage would not
16 have occurred.

17 If you find your verdict for the plaintiff, then in
18 determining the damages in which he is entitled, you may
19 consider any of the following which you believe by the
20 greater weight of the evidence was caused by the
21 negligence of the defendant; one, any bodily injuries he
22 sustained and their effect on his health according to
23 their degree and probably duration; two, any physical
24 pain or mental anguish he suffered in the past and any he
25 may be reasonably expected to suffer in the future;

1 three, any disfigurement; four, any inconvenience caused
2 in the past and any that probably will be caused in the
3 future; five, any medical expenses incurred in the past;
4 six, any earnings he lost because he was unable to work
5 in his calling. Your verdict shall be for such sum as
6 will fully and fairly compensate the plaintiff for the
7 damages sustained as a result of the defendant's
8 negligence.

9 The burden is on the plaintiff to prove by the
10 greater weight of the evidence each item of damage he
11 claims and to prove each item was caused by the
12 defendant's negligence. He is not required to prove the
13 exact amount of his damages, but he must show sufficient
14 facts and circumstances to permit you to make a
15 reasonable estimate of each item. If the plaintiff fails
16 to do so, then he cannot recover for that item.

17 If you find the plaintiff had a condition before the
18 accident that was aggravated as a result of the accident
19 or that the preexisting condition made the injury receive
20 in the accident more severe, more difficult to treat,
21 then if you should find your verdict for the plaintiff,
22 he may recover for the aggravation and for the increased
23 severity or difficulty of treatment, but he is not
24 entitled to recover for the preexisting condition.

25 The table of life expectancy shows that the

1 plaintiff's life expectancy is 36.3 years.

2 Ladies and Gentlemen, there will be instructions
3 which contains the two possible verdicts in this case,
4 one of which your foreman will please complete.

5
6 * * * * *

CERTIFICATE OF COURT REPORTER

I, Kathleen M. Harrison, hereby certify that I, having been duly sworn, was the court reporter in the Circuit Court of the County of Stafford, Virginia, on March 17 and 20, 1995, at the time of the hearing herein; further, that the foregoing is a true and accurate record of the testimony and other incidents of the hearing herein.

Given under my hand this 18th day of August, 1995.

Kathleen M. Harrison
Kathleen M. Harrison

COOK & WILEY, INC.

VIRGINIA:

IN THE CIRCUIT COURT OF STAFFORD COUNTY

JEFFREY A. TITTSWORTH,

Plaintiff,

v.

Case No.: CL94-000028-00

STEPHANIE N. ROBINSON,

Defendant.

FINAL JUDGMENT ORDER

This case was heard on March 17 and 20, 1995, with a jury sworn to try the issues joined, namely, James L. Carlton, Foreman, Judith A. Neitzey, Roger Anderson, Renee Richardson, Karen L. Braner, Mary S. Devendorf, and William C. Allen; upon the plaintiff's Motion for Judgment; upon the defendant's Grounds of Defense thereto; upon the testimony of witnesses on behalf of the plaintiff and the defendant and exhibits presented therewith; and was argued by counsel.

At the conclusion of the plaintiff's evidence, the defendant moved to strike the plaintiff's evidence for the reasons stated in the record, and the Court denied the defendant's motion. At the conclusion of the defendant's evidence, the plaintiff moved to strike the testimony of the defendant's expert witnesses for the reasons stated on the record, and the Court denied the plaintiff's motion. The plaintiff presented evidence in rebuttal. At the conclusion of all the evidence, the defendant renewed her motion to strike the plaintiff's evidence for the reasons stated in the record, and the Court denied the defendant's motion.

Having heard all the evidence in the case and argument of counsel, and having received instructions of the Court, the jury retired to their room on March 20, 1995, to consider their verdict, and on the same day the jury returned to open court and rendered their verdict in favor

of the defendant.

The jury was then discharged, and the plaintiff moved for time to file post-trial motions, and the Court granted the plaintiff 21 days in which to do so.

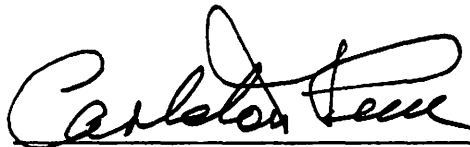
The plaintiff filed a Motion for New Trial on the grounds stated therein. The Court heard argument of counsel. The Plaintiff did not present oral argument in support of Grounds 1 through 3 of the Motion. Following argument of counsel on the plaintiff's Motion for New Trial, the Court denied the plaintiff's Motion, noting the plaintiff's exceptions to that ruling.

Accordingly, the Court hereby ORDERS that judgment be entered on the jury verdict for the defendant in this matter. All objections of counsel are noted as stated in the record and herein.

The Clerk is hereby instructed to mail a certified copy of this Final Judgment Order to all counsel of record.

There being nothing further to be done, this case is ended and the Clerk is instructed to place it among the ~~properly indexed period.~~ *ended common law cases.*

ENTER: 23 June 1995


Judge Designate

Seen and Agreed:



C. James Williams, III

Carla H. Thomas

THE LAW OFFICES OF C. JAMES WILLIAMS, III

4461 Cox Road, Suite 101

Glen Allen, Virginia 23058

Seen and Objected to:



Dennis Ahern

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DEFENDANT'S EXHIBITS A THRU H
LARGE PHOTOS MOUNTED ON POSTERBOARD
EXHIBITS TOO LARGE TO BE REASONABLY
REPRODUCED AND ARE CONTAINED IN THE
RECORD ON FILE WITH THE CLERK'S OFFICE OF
THE VIRGINIA SUPREME COURT

ASSIGNMENT OF ERROR

1. The trial court erred in refusing to strike the testimony of defendant's experts as irrelevant, speculative, unreliable, and lacking factual basis.