

IN THE COURT OF COMMON PLEAS  
CUYAHOGA COUNTY, OHIO

KARL J. YOST, etc., et al  
Plaintiffs  
VERSUS  
JUDGE TIMOTHY J. MCGINTY  
THE CLEVELAND CLINIC  
FOUNDATION  
Defendants

Videotaped deposition of DR. BRUCE FISCH, 1542 Tulane Avenue, Conference Room 219 A, New Orleans, Louisiana, 70112, taken in his offices, on Tuesday, the 13th day of May, 2003.

APPEARANCES:

(Via telephone)  
BECKER & MISHKIND CO., L.P.A.  
(By: Michael F. Becker, Esquire)  
134 Middle Avenue  
Elyria, Ohio 44035

ATTORNEYS FOR THE PLAINTIFFS

REMININGER & REMINGER CO., L.P.A.  
(By: Alan Parker, Esquire)  
1400 Midland Building  
101 Prospect Avenue West  
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ATTORNEYS FOR THE DEFENDANT

REPORTED BY:

NANCY LAPORTE  
Certified Court Reporter  
State of Louisiana

COPY

S T I P U L A T I O N

It is stipulated and agreed by and between counsel for the parties hereto that the deposition of the aforementioned witness is hereby being taken pursuant to Rule 30 of the Ohio Rules of Civil Procedure;

That the formalities of reading and signing are specifically not waived;

That the formalities of sealing, certification, and filing are specifically waived;

That all objections, save those as to the form of the question and the responsiveness of the answer, are hereby reserved until such time as this deposition, or any part thereof, may be used or sought to be used in evidence.

NANCY LAPORTE, Certified Court Reporter, in and for the Parish of Orleans, State of Louisiana, officiated in administering the oath to the witness.

1 DR. BRUCE FISCH,

2 after having been first duly sworn by the  
3 above-mentioned Certified Court Reporter, was  
4 examined and testified as follows:

5 EXAMINATION BY MR. BECKER:

6 Q. Good morning, Doctor.

7 A. Good morning.

8 Q. would you tell me your full name  
9 please?

10 A. Bruce Jeffrey Fisch.

11 Q. And you don't sound like you are  
12 from New Orleans.

13 A. No. I grew up in Indiana.

14 Q. Okay. Doctor, have you ever been  
15 deposed before?

16 A. Yes.

17 Q. Many times or a few times? Give  
18 me a sense.

19 A. Probably less than ten.

20 Q. I just want to review the ground  
21 rules here. This is a question-and-answer  
22 session under oath.

23 A. Yes.

24 Q. It's important that we  
25 communicate, and it's important that you

1 understand the question. If the question is  
2 ineptly phrased or confusing to you, I don't  
3 want you to answer. I want you to stop me and  
4 tell me so, and I would be most pleased to  
5 attempt to rephrase or restate the question;  
6 fair enough?

7 A. Fair enough.

8 Q. Because I am conducting this  
9 deposition by telephone, it's critically  
10 important that you be sure I have completed my  
11 question before beginning your answer so we  
12 don't speak over one another; fair enough?

13 A. Okay.

14 Q. It's also important that you  
15 answer verbally; obviously I cannot appreciate  
16 any type of a head nod. So as I may have  
17 indicated to you, unless you indicate  
18 otherwise to me I'm going to assume that you  
19 fully understood the question that I posed and  
20 you are giving me your best and most complete  
21 answer today; fair enough?

22 A. Okay.

23 Q. Doctor, do you have a copy of  
24 your curriculum vitae handy?

25 A. Yes, I do.

1 Q. would you hand that to the court  
2 reporter so she can mark it as Plaintiff's  
3 Exhibit Number 1?

4 THE COURT REPORTER:

5 The document is marked.

6 EXAMINATION BY MR. BECKER:

7 Q. What we're handing you has been  
8 marked as Plaintiff's Exhibit 1. Would you  
9 identify that document for us?

10 A. This is my curriculum vitae.  
11 It's a summary of my career path and  
12 publications and other academic activities.

13 Q. Is it current?

14 A. Yes.

15 Q. Are there any articles that you  
16 have authored or co-authored or textbook or  
17 journal articles or chapters in textbooks that  
18 do not appear on that vitae?

19 A. There may be because it's a  
20 summary, as far as publications go, of more  
21 recent publications. But if you want I can  
22 certainly supply you with a complete list.

23 Q. Would you give -- is that  
24 something you could tender to Mr. Parker at  
25 the end of this deposition?

1 A. Yes, I could.

2 Q. What I am interested in, Doctor,  
3 is whether -- let's talk about invited  
4 lectures, first of all. Have you provided --  
5 have you done any invited lectures that would  
6 be relevant to the subject matter of this  
7 case?

8 A. I don't think directly, but in  
9 the field of clinical neurophysiology, yes.

10 Q. Which invited lectures would they  
11 be?

12 A. My last lecturing activity was  
13 with the American Academy of Clinical  
14 Neurophysiology, where I chaired an all-day  
15 course in electroencephalography, from  
16 technical aspects to clinical applications.  
17 Before that, I believe, would be my  
18 presidential address to the American Clinical  
19 Neurophysiology Society that had to do with  
20 the electrophysiology of epileptiform  
21 activity.

22 Q. I didn't hear the end of your  
23 answer.

24 A. It had to do with the physiology  
25 of something called epileptiform activity.

1 It's an electrical discharge that occurs from  
2 the brain in people who have epilepsy.

3 Q. I noted you have a particular  
4 interest in epilepsy.

5 A. Yes, I do.

6 Q. Have you given any lectures on  
7 the topic of intraoperative monitoring via EMG  
8 and/or the use of neuromuscular blockers  
9 during intraoperative monitoring?

10 A. No.

11 Q. In the journal article, could you  
12 tell me which journal articles or textbooks  
13 would be relevant to the subject matter of  
14 this case?

15 A. Give me one moment to take a  
16 look.

17 Q. Take your time.

18 A. In looking through the articles  
19 that I have in the current CV, I don't see any  
20 that would be directly relevant to the case.

21 Q. When you say "articles," would  
22 that include book chapters as well?

23 A. That's correct. In one book that  
24 I author, the -- it's called the EEG Primer --  
25 there is some discussion of evoked

1 potentials --

2 Q. Right.

3 A. -- that would have some  
4 relevance, I suppose, to this case. But  
5 not -- there isn't any in-depth discussion  
6 about intraoperative monitoring.

7 Q. Let's talk a little bit about if  
8 you know how Mr. Parker happened to contact --  
9 or how the law firm of Reminger & Reminger  
10 happened to contact you in this case.

11 A. No. I don't know at whose advice  
12 they contacted me.

13 Q. Do you know any doctors at the  
14 Cleveland Clinic?

15 A. Yes, I do.

16 Q. Who do you know?

17 A. Well, I know Dr. Luders, who is  
18 the chairman of the department there. He  
19 shares some similar interests with me. I know  
20 Dr. Dudley Dinner, who is also a clinical  
21 neurophysiologist and epileptologist and sleep  
22 expert. Dr. Elaine Wyllie, who is a pediatric  
23 epileptologist and whose textbook of epilepsy  
24 I contribute to.

25 Q. Okay. Ever been to the Cleveland



1 Clinic?

2 A. No.

3 Q. Of the three or four physicians  
4 you've just delineated, who do you know the  
5 best? Likely Luders?

6 A. It would be hard to say. I have  
7 had similar exposure to each of them, I  
8 believe, over the years.

9 Q. I am assuming you have not talked  
10 to any doctor at the Cleveland Clinic  
11 regarding this case?

12 A. No, I have not.

13 Q. Let's talk about your  
14 medical-legal work, Doctor. How long have you  
15 been reviewing cases?

16 A. Since around 1990 or '91.

17 Q. And would that be just maybe one  
18 or two cases a year?

19 A. At most.

20 Q. And do you keep a list of the  
21 cases you have reviewed?

22 A. I don't specifically keep a  
23 complete list; however, I might be able to  
24 reconstruct such a list.

25 Q. well, have you ever reviewed a

1 case from the Cleveland Clinic before?

2 A. No.

3 Q. Ever reviewed a case for the law  
4 firm of Reminger & Reminger before?

5 A. Not to my knowledge.

6 Q. How did your work break down  
7 between cases -- the context -- plaintiff and  
8 defendant? What is the percentage?

9 A. I don't think I understand the  
10 question.

11 Q. What percentage of the contacts  
12 that you get per year or in total, let's say  
13 in the last 10, 12 years, have been on behalf  
14 of the patient, and what percentage have been  
15 on the behalf of the medical provider?

16 A. I would say the majority have  
17 been on the behalf of the defendants or the  
18 medical provider.

19 Q. Okay. How many cases have you  
20 actually reviewed on behalf of the plaintiff  
21 and you found it meritorious where you would  
22 be willing to give a deposition and testify,  
23 if any?

24 A. I don't think any.

25 Q. Of the depositions you have given

1 it's been on the behalf of the medical  
2 provider, correct?

3 A. To the best of my recollection,  
4 almost exclusively.

5 Q. And, Doctor, have any of those  
6 cases involved any type of similar subject  
7 matter involving whether there was valid and  
8 reliable intraoperative monitoring done during  
9 spinal cord surgery?

10 A. No.

11 Q. Have any of them involved any  
12 type of intraoperative monitoring in those  
13 other cases?

14 A. No.

15 Q. No?

16 A. No.

17 Q. Do you have any notes as a result  
18 of your review of this case?

19 A. I have two pages of typed  
20 comments.

21 Q. Okay.

22 A. Just some of the information.

23 Q. Is that something that -- Alan,  
24 could we facilitate the fax of those two  
25 pages? Let's mark them as exhibits --

1 Plaintiff's Exhibit 2A and 2B right now. And  
2 then, Alan, would you make inquiry if someone  
3 could fax them to my office immediately?

4 A. Excuse me. I'd have to dig them  
5 out of my office. They were outline notes  
6 that I used in making my statement that I had  
7 submitted.

8 Q. Where are you situated in  
9 relation to your office?

10 A. It's down the hall.

11 Q. Can we go off of the record a  
12 moment, Doctor, while you retrieve that,  
13 please?

14 A. Sure.

15 THE VIDEOGRAPHER:

16 We're going off of the record.  
17 It's 11:31 a.m.

18 (Brief recess.)

19 THE VIDEOGRAPHER:

20 We are back on record. It's  
21 11:40 a.m.

22 EXAMINATION BY MR. BECKER:

23 Q. Doctor, handing you what's been  
24 marked as Plaintiff's Exhibit 2A and 2B, would  
25 you identify those for the record, please?

1           A.           Yes. These are some notes I took  
2 on the records I reviewed.

3           Q.           Okay. For example, under Luciano  
4 Deposition, you are simply quoting what he  
5 says?

6           A.           That's correct. I made these  
7 notes some time ago, partly for the purpose of  
8 submitting my opinion --

9           Q.           Right.

10          A.           -- to Mr. Malone.

11          Q.           For example, under Luciano, pages  
12 33, 34, it says, "Doesn't know that monitoring  
13 and excludes bladder FX." What does FX mean?

14          A.           FX means function.

15          Q.           And what is the significance of  
16 that?

17          A.           I am not sure. I have got to  
18 take a look back at the deposition.

19          Q.           Does that surprise you that he  
20 didn't know that monitoring excludes bladder  
21 function?

22          A.           I think what happened was --  
23 yeah. It first, when I read that, I got the  
24 impression that he wasn't aware that the  
25 monitoring being performed would exclude

1 bladder function. But at that time I was also  
2 unaware that the anal sphincter had been  
3 monitored.

4 Q. One second. I have got to put  
5 you on hold just for 15 seconds.

6 A. Okay.

7 Q. I'm back. So when you have Dan  
8 Schwartz so -- Dan Schwartz's opinions are  
9 from his deposition and they start at the  
10 bottom of the first page. And everything on  
11 the second page is your interpretation of what  
12 he says?

13 A. Yeah. For instance, when I say  
14 "He guesses that this or that," the second  
15 paragraph from the top --

16 Q. I'm not talking about your  
17 report, I'm talking about your --

18 A. I'm not either.

19 Q. -- your notes.

20 A. That's what I am talking about.  
21 Second page of my notes, the second paragraph,  
22 for instance, I use the term "He guesses."

23 Q. Right.

24 A. That's, you know, my opinion of  
25 what he is trying to say in his deposition.

1 Q. Okay. So these are your comments  
2 on what he says. But there are no notes that  
3 reflect your review, what you found from your  
4 impressions from looking at the medical  
5 records; is that correct?

6 A. Well, I am not sure if I could  
7 put it that way, because these are my  
8 impressions from reviewing the depositions and  
9 records.

10 Q. Okay. Clearly, they are your  
11 impressions from looking at the depositions.  
12 Is there anything that references or reflects  
13 your impressions from the records?

14 MR. PARKER:

15 Other than his report?

16 MR. BECKER:

17 I am talking about in his notes.

18 THE WITNESS:

19 No. I don't believe so.

20 EXAMINATION BY MR. BECKER:

21 Q. Okay.

22 Doctor, is it your opinion that  
23 the intraoperative monitoring by Dr. Cheek was  
24 prudent and careful and met all of the  
25 standards applicable in 1996?

1           A.           I think it was appropriate for  
2 what was being done for intraoperative  
3 monitoring in 1996.

4           Q.           Okay.

5                       So as far as you are concerned,  
6 the Cleveland Clinic and their intraoperative  
7 monitoring -- in this case they met all of the  
8 reasonable, prudent, and careful standard of  
9 care?

10           MR. PARKER:

11                       Objection to form. You can  
12 answer, Doctor.

13           THE WITNESS:

14                       As far as I can tell, what they  
15 did was appropriate for the case.

16           EXAMINATION BY MR. BECKER:

17           Q.           As far as your opinions, Doctor,  
18 that they -- that there was -- clearly you  
19 feel they complied with the standard of care  
20 for intraoperative monitoring by competent  
21 neurophysiologists, correct?

22           A.           Well, what do you mean by  
23 "standard of care"? In other words --

24           Q.           Well, what is your definition of  
25 "standard of care," doctor?



1           A.           If you are talking about written  
2 guidelines, then I am not sure we could -- we  
3 could have a reasonable answer, because this  
4 practice of intraoperative monitoring is  
5 somewhat locality based. There is a lot of  
6 difference from one place to another. Even  
7 today, as shown in one of these depositions,  
8 there's a center where they don't use  
9 intraoperative monitoring at all. There is a  
10 lot of variation in practice, is what I am  
11 trying to say. So if you are trying to get me  
12 to say he met the standard of practice,  
13 standard of practice was -- wasn't clearly  
14 defined then and it's still evolving now.

15           Q.           Here's my question, Doctor.

16           A.           Okay.

17           Q.           Can we agree that if one is to  
18 engage in intraoperative monitoring then those  
19 professionals that conduct the intraoperative  
20 monitoring have to do it in a prudent and  
21 careful way. Do you agree with that?

22           MR. PARKER:

23                       Objection.

24           EXAMINATION BY MR. BECKER:

25           Q.           Do you agree with that, Doctor?

1           A.           well, I think the people who  
2 engage in monitoring have to be competent to  
3 do monitoring.

4           Q.           So the answer to my question  
5 would be yes?

6           MR. PARKER:

7                       Objection. It mischaracterizes.  
8 You don't want me saying what I think, so I  
9 will keep my mouth shut, but objection to the  
10 form.

11          MR. BECKER:

12                      I would rather you not give  
13 speaking objections, Alan.

14          MR. PARKER:

15                      Right, and so I'm not.  
16 Objection to form.

17          THE WITNESS:

18                      I think what they did was  
19 reasonable.

20          EXAMINATION BY MR. BECKER:

21           Q.           Okay. And as far as you are  
22 concerned what they did did not violate any  
23 prudent or careful practice?

24          MR. PARKER:

25                      Objection to form.

1 EXAMINATION BY MR. BECKER:

2 Q. Correct?

3 A. What -- see, again, because there  
4 is no global standard for intraoperative  
5 monitoring, certainly wasn't then, I am not  
6 sure what practice you are talking about  
7 violating or not violating. Can you be more  
8 specific?

9 Q. Well, I am going to try, Doctor.  
10 I'm assuming you've been brought into this  
11 case to give an expert opinion that the  
12 Cleveland Clinic and Dr. Cheek met the  
13 appropriate standard of care for a  
14 neurophysiologist during this surgery.

15 A. I think I was brought into this  
16 case to give my opinion, one way or the other.

17 Q. Well, they didn't bring you into  
18 this case to give an opinion that Dr. Cheek  
19 violated the standard of care. That's not  
20 your opinion, is it?

21 A. Well, I am sure they are hopeful  
22 that I would give an opinion that would  
23 support them, just as you would be hopeful I'd  
24 give an opinion that would support you. All  
25 I'm trying to say is: My understanding coming

1       into this case is that I am supposed to give  
2       my opinion, what I truly believe my  
3       objective -- as most objective it can be --  
4       opinion.

5           Q.           Right, you are supposed to give  
6       an objective opinion, correct?

7           A.           To the best of my knowledge.

8           Q.           And let me ask it this way. Will  
9       you be rendering an opinion at trial that Dr.  
10      Cheek's and -- Cheek's and/or his colleagues  
11      who were engaged in the intraoperative  
12      monitoring of Karl Yost met the standard of  
13      care? Are you going to be rendering an  
14      opinion on that issue?

15          A.           I'll -- I will be willing to say  
16      that they gave adequate care.

17          Q.           Okay. And when you say "adequate  
18      care," did they meet -- please understand or  
19      assume that "standard of care" in Ohio is  
20      defined as what a reasonably prudent and  
21      careful person would do, a specialist in like  
22      or similar circumstances.

23          MR. PARKER:

24                       We are going to disagree on that  
25      definition. I object to the form.

1 THE WITNESS:

2 You are putting me in a somewhat  
3 difficult position because I am not thoroughly  
4 familiar with precise definitions of "standard  
5 of care," particularly as it would apply to  
6 Ohio.

7 EXAMINATION BY MR. BECKER

8 Q. Okay. well, I am going to ask  
9 you to assume it's true that that's the  
10 definition, the definition that I just gave  
11 you what a reasonably prudent or careful  
12 person would do in like or similar  
13 circumstances of the same specialty. Okay?

14 A. Okay.

15 Q. Now, is it your opinion that Dr.  
16 Cheek met the appropriate standard of care in  
17 this intraoperative monitoring of Karl Yost?

18 MR. PARKER:

19 Objection. You can answer it.

20 THE WITNESS:

21 Okay. Back in 1996 when this  
22 took place, I would say he probably met  
23 whatever standard of care there was in Ohio at  
24 the time for intraoperative monitoring.

25 EXAMINATION BY MR. BECKER:

1 Q. I didn't hear the answer, sir.

2 A. Back in '96 when this was  
3 performed, I would say that he probably met  
4 whatever standard of care there was --

5 Q. Okay.

6 A. -- for intraoperative  
7 monitoring --

8 Q. Okay.

9 A. -- at the time.

10 Q. And what's the basis of that  
11 opinion?

12 A. The basis of that opinion is that  
13 motor function was monitored and sensory  
14 function was monitored, that function of the  
15 anal sphincter, which we all hope will cover  
16 function also of the bladder, was monitored.

17 Q. Okay. And since there was  
18 monitoring, you felt that was sufficient to  
19 meet the standard of care, as I defined it?

20 A. I think they did an adequate job  
21 of supporting the surgeon with monitoring.

22 Q. Okay. Are you making any  
23 assumptions for that conclusion that they met  
24 the standard of care?

25 A. Such as?

1 Q. I don't know.

2 A. Well, I am assuming that they  
3 performed the monitoring. I am assuming that  
4 the monitoring was -- was monitored by  
5 someone --

6 Q. Competent to interpret?

7 A. Correct.

8 Q. Any other assumptions?

9 A. No. I think that's about it.

10 Q. Well, let's go on and talk a  
11 little bit further about this -- medicine in  
12 this case, and we may discover some other  
13 assumptions.

14 I am assuming that you are in  
15 charge of the intraoperative monitoring at LSU  
16 down there?

17 A. I am the head of the section of  
18 clinical neurophysiology. I don't directly do  
19 the intraoperative monitoring.

20 Q. You don't?

21 A. No.

22 Q. Who does?

23 A. Dr. Lee Happel and some --

24 Q. How do you spell his last name?

25 A. H-A-P-P-E-L. He performs about

1 500 cases a year.

2 Q. Is he a neurologist?

3 A. He's a clinical

4 neurophysiologist. He's a Ph.D.

5 Q. Similar to Dr. Schwartz?

6 MR. PARKER:

7 Objection.

8 THE WITNESS:

9 well, except, I guess, he's a  
10 full-time employee at a university.

11 EXAMINATION BY MR. BECKER:

12 Q. Other than that, his training is  
13 similar, to your knowledge?

14 A. Oh, I have no knowledge of Dr.  
15 Schwartz's training.

16 Q. You don't actually engage in  
17 intraoperative monitoring? Dr. Lee Happel  
18 does?

19 A. That's correct.

20 Q. Do you know whether Dr. Lee  
21 Happel was contacted on this case to act as an  
22 expert?

23 A. No. He wasn't, to my knowledge.

24 Q. Did you ever recommend to Mr.  
25 Malone or anybody around you in the office



1 that they hire a clinic neurophysiologist that  
2 actually does monitoring?

3 MR. PARKER:

4 Objection. That would be work  
5 product.

6 EXAMINATION BY MR. BECKER:

7 Q. I'm not asking you what -- I am  
8 asking you if you ever made that  
9 recommendation?

10 MR. PARKER:

11 That would be work product.  
12 That would be communication between expert and  
13 attorney.

14 Don't answer that, Doctor.

15 EXAMINATION BY MR. BECKER:

16 Q. Do you know, Doctor, whether Lee  
17 Happel does any medical-legal work?

18 A. I don't.

19 Q. Have you talked to Dr. Lee Happel  
20 about this case, by chance?

21 A. I haven't talked to him  
22 specifically about this case, but I have asked  
23 him some questions that might be relative --  
24 relevant to it.

25 Q. Okay. Tell me what questions

1 you've asked him that would be relevant to  
2 this case. What kind of questions?

3 A. Okay. Well, I am going by memory  
4 and this is months ago.

5 Q. Go ahead.

6 A. But the question I recall asking  
7 him was about how often we use a neuromuscular  
8 blockade in a tethered cord surgery, and if  
9 that is used how adequately can the monitoring  
10 be performed?

11 Q. You asked him that question?

12 A. Correct.

13 Q. You asked him that question  
14 because you didn't know the answer?

15 A. I wanted to check my own  
16 knowledge against his.

17 Q. I see.

18 Did he -- was this a verbal or  
19 was this, like, an e-mail transmit, or --

20 A. It was just a verbal exchange.

21 Q. Okay.

22 A. Pretty brief.

23 Q. Do you recall his comments  
24 specifically?

25 A. Well, it's a little fuzzy now.

1 But in general, his response was that it would  
2 be appropriate to use a neuromuscular blockade  
3 in such a case, as long as the blockade didn't  
4 completely prevent a muscular response from a  
5 direct neuro stimulation.

6 Q. How do you insure that the  
7 blockade doesn't block the neuromuscular  
8 response? How do you insure that, Doctor?

9 A. Well, first of all you get the  
10 response if you --

11 Q. Sorry?

12 A. You get the response to begin  
13 with. If there is any question you can also  
14 take a look at the train of four that the  
15 anesthesiologist usually performs.

16 Q. When you say "take a look at it,"  
17 you mean take a look at the printout to the  
18 sheets?

19 A. No. Just see what the response  
20 is to the train of four.

21 Q. Okay. And what kind of documents  
22 support the anesthesiologist on train of four?

23 A. You mean in general?

24 Q. In general.

25 MR. PARKER:

1                   Objection. You can answer.

2           EXAMINATION BY MR. BECKER:

3           Q.           What do the documents look like?  
4           What are they called?

5           MR. PARKER:

6                   Objection.

7           THE WITNESS:

8                   well, it can be on a monitor, it  
9           can be on a printout --

10          MR. BECKER:

11                   Okay.

12          THE WITNESS:

13                   -- and if it's gross enough it  
14          can be direct observation.

15          EXAMINATION BY MR. BECKER:

16          Q.           Okay.

17                   well, based on what you are  
18          saying to me, I am wondering if you -- have  
19          you ever witnessed a surgery on tethering of a  
20          lipoma?

21          A.           No.

22          Q.           Can we agree, Doctor, that if in  
23          fact the Cleveland Clinic's surgeon told the  
24          parents that there would be intraoperative  
25          monitoring, the parents had the right to rely

1 on that representation by Dr. Luciano and the  
2 right to rely on the belief that the  
3 intraoperative monitoring would be done in a  
4 valid and reliable manner?

5 MR. PARKER:

6 Objection.

7 THE WITNESS:

8 I think you are losing me a  
9 little bit with what seems like legalese to  
10 me.

11 MR. BECKER:

12 Nancy?

13 THE COURT REPORTER:

14 Yes, sir.

15 MR. BECKER:

16 I'd like you to, if you would  
17 please, to repeat that question for the  
18 doctor.

19 THE COURT REPORTER:

20 Sure.

21 "Can we agree, Doctor, if in fact  
22 the Cleveland Clinic's surgeon told the  
23 parents that there would be intraoperative  
24 monitoring, the parents had the right to rely  
25 on that representation by Dr. Luciano and the

1 right to rely on the belief that the  
2 intraoperative monitoring would be done in a  
3 valid and reliable manner?"

4 THE WITNESS:

5 I think it was reasonable for  
6 them to conclude, based on him telling them  
7 that, that there would be monitoring and it  
8 would be done appropriately.

9 EXAMINATION BY MR. BECKER:

10 Q. Thank you.

11 Now, would you agree with me,  
12 Doctor, that the most appropriate  
13 intraoperative monitoring technique in 1996  
14 for this type of lipoma in the lower end of  
15 the spinal cord would have been spontaneous  
16 and stimulated EMG?

17 A. I would say more importantly  
18 stimulated EEG.

19 Q. EEG or EMG?

20 A. I am sorry if I said EEG. I  
21 meant EMG.

22 Q. Are you assuming that Dr. Cheek  
23 -- well, strike that.

24 would you agree with me that the  
25 neurophysiologist should develop an

1 appropriate anesthesia protocol with the  
2 Department of Anesthesiology that would  
3 facilitate a reliable and valid EMG  
4 monitoring?

5 MR. PARKER:

6 objection.

7 THE WITNESS:

8 I think they have to develop an  
9 approach in each case. I am not sure how you  
10 mean "protocol" here.

11 EXAMINATION BY MR. BECKER:

12 Q. Well, do you have any knowledge  
13 whether Dr. Happel developed any protocols --  
14 written protocols or gave lectures to the  
15 Department of Anesthesiology? What should be  
16 used and what should be avoided or minimized  
17 during spinal cord surgery?

18 MR. PARKER:

19 objection.

20 THE WITNESS:

21 I don't have firsthand knowledge  
22 of any lectures he's given. I know he gives  
23 lectures.

24 EXAMINATION BY MR. BECKER:

25 Q. Do you have any knowledge whether

1 he ever created a written guideline or  
2 protocol for the Department of Anesthesia?

3 MR. PARKER:

4 objection.

5 THE WITNESS:

6 No, I am not aware if he has done  
7 that. But I believe that in each surgical  
8 case it's considered separately, so what may  
9 be appropriate in one setting is not in  
10 another.

11 EXAMINATION BY MR. BECKER:

12 Q. Can we agree that Dr. Cheek had a  
13 responsibility to let Anesthesia know before  
14 this case began what type of anesthesia would  
15 be appropriate to facilitate a reliable and  
16 valid EMG monitoring?

17 A. I think he had a responsibility  
18 to be aware of what the anesthesia was and if  
19 it was not going to be appropriate for  
20 monitoring to intervene.

21 Q. Okay. And do you think Dr. Cheek  
22 had a responsibility to let the Department of  
23 Anesthesia know in this case -- the  
24 anesthesiologist know in this case that we  
25 should do whatever we can to avoid



1 neuromuscular blockades during the critical  
2 aspects of the surgery?

3 A. Again, it's going to vary from  
4 case to case. He may have actually wanted a  
5 neuromuscular blockade, to some extent.

6 Q. why would a doctor want a  
7 neuromuscular blockade when one is engaging in  
8 EMG monitoring?

9 A. For the convenience of the  
10 surgeon.

11 Q. well, wouldn't a neuromuscular  
12 blockade potentially give a false negative  
13 information to the surgeon?

14 A. well, it might give false  
15 positive information. If you stimulate and  
16 don't get a response it might be because it's  
17 a neuromuscular blockade.

18 Q. I guess I would call it false  
19 negative; you call it false positive.  
20 whatever. False information: I think we can  
21 agree on that.

22 A. I think it might tend to make  
23 them alert the surgeon to something being  
24 wrong when it wasn't wrong. In other words,  
25 erring on the conservative side because they

1 would try to elicit a response, but the  
2 blockade would overwhelm it. And then they'd  
3 get no response. They'd tell the neurosurgeon  
4 that, but it would be the wrong information.  
5 But it wouldn't necessarily harm the patient.

6 Q. It wouldn't harm the patient?

7 A. Correct.

8 Q. You said?

9 A. That's right.

10 Q. Well, doesn't the surgeon rely on  
11 the information he gets from the EMG  
12 monitoring professionals?

13 A. Yeah. I didn't say that he  
14 wouldn't. I am just saying, again -- and  
15 maybe this just simply goes back to false  
16 negative/false positive. But if there is too  
17 much of a neuromuscular blockade, then when  
18 they stimulate nerves they won't get a  
19 response. They will turn to the surgeon and  
20 say, "Something is wrong. We are not getting  
21 a response." But it won't mean --

22 Q. Or they could turn up --

23 MR. PARKER:

24 Mike, you are interrupting the  
25 answer.

1 MR. BECKER:

2 Excuse me, Doctor.

3 THE WITNESS:

4 -- but it won't mean there is any  
5 damage.

6 EXAMINATION BY MR. PARKER:

7 Q. I understand that. Or the  
8 technician could turn up the electrical charge  
9 even higher until he does get a response, and  
10 then at that time the physician could get a  
11 false negative or positive, correct?

12 A. I think you've lost me on that.

13 Q. If there's a neuromuscular  
14 blockade and there is no response, the  
15 technician or the doctor -- I am not sure who  
16 is controlling this -- could turn the  
17 intensity up of the charge. --

18 A. They could do anything, but --

19 Q. -- to a point that --

20 A. -- what they probably would do is  
21 they might turn and check the train of four.

22 Q. Right.

23 A. They might check how the  
24 equipment was wired up, you know, if an  
25 electrode moved. They might do a lot of

1 things.

2 Q. Who are you assuming was  
3 conducting the train of four on this case?

4 A. I am assuming it was the  
5 anesthesiologist.

6 Q. Okay. Would your opinion as to  
7 whether or not the Cleveland Clinic did  
8 anything wrong or violated standard of care be  
9 altered or changed if you knew that a resident  
10 was doing the train of four?

11 A. Not necessarily.

12 Q. What are you assuming was done  
13 relative to the train of four in this case?  
14 You've already assumed -- you told me you are  
15 assuming it was done by the anesthesiologist.  
16 When were you assuming it was done?

17 MR. PARKER:

18 I am going to object. I think  
19 you are misinterpreting his testimony. But go  
20 ahead, Doctor.

21 THE WITNESS:

22 Well, I --

23 EXAMINATION BY MR. BECKER:

24 Q. Let's start over, Doctor.

25 A. Okay.

1 Q. Aren't you assuming that the  
2 train of four was done by the  
3 anesthesiologist?

4 A. I don't really know who did the  
5 train of four, of course, but I assume it was  
6 either done by the anesthesiologist or someone  
7 under their supervision. That's my  
8 assumption.

9 Q. Actually, I thought I told you it  
10 was a resident up until that moment. You  
11 assumed the train of four was done by the  
12 anesthesiologist, correct?

13 A. No. The anesthesiologist or one  
14 of their -- someone under their supervision.

15 Q. Okay. And what year resident are  
16 you assuming this person was?

17 A. I wasn't.

18 Q. Okay.

19 You don't know?

20 MR. PARKER:

21 He wasn't making the assumption,  
22 is what he is telling you, Mike.

23 EXAMINATION BY MR. BECKER:

24 Q. And how often are you assuming  
25 the train of four was done?

1 MR. PARKER:

2 Mike, you are turning a  
3 statement that he made of what may have been  
4 done -- you are turning that into an  
5 assumption. And I guess you can do so, but it  
6 is wrong to impose that assumption on the  
7 doctor. Object to the form.

8 MR. BECKER:

9 The appropriate way to handle  
10 that is just enter an objection.

11 MR. PARKER:

12 Okay.

13 MR. BECKER:

14 You know that.

15 EXAMINATION BY MR. BECKER:

16 Q. What are you assuming relative to  
17 how often this train of four was actually  
18 being conducted?

19 A. I would guess maybe every 15  
20 minutes to every half an hour.

21 MR. PARKER:

22 Move to strike.

23 EXAMINATION BY MR. BECKER:

24 Q. On the basis of that assumption?

25 A. Just that it seems if you are

1 changing your neuromuscular blockade and  
2 anesthesia that it might be a reasonable thing  
3 to do. But again, I am making assumptions  
4 here. I don't know what their standard  
5 practice is there, and I do know that it would  
6 certainly vary from one location to the next.

7 Q. And are you assuming that there  
8 was just a manual train of four done? It  
9 wasn't continuous monitoring?

10 A. I really don't know.

11 Q. Okay.

12 And are you assuming that the  
13 train of four considered the intensity of the  
14 response, or simply whether or not there was a  
15 response, however slight?

16 A. Well, I suppose it's very hard to  
17 pretend that I know what happened at the time.  
18 But if the physicians are saying they did what  
19 was reasonable, then if they were failing to  
20 get a response with their direct monitoring,  
21 at that point they would probably want to look  
22 at the train of four. Beyond that, you know,  
23 I don't assume that they did anything in  
24 particular with the train of four.

25 Q. Well, is there any reference that

1 Dr. Luciano in his operative report or any of  
2 the medical records states that he relied upon  
3 a train of four?

4 A. Not to my recollection, but if he  
5 was -- if stimulation was occurring and they  
6 were getting responses, again, I don't know  
7 that they would need it.

8 Q. Can we agree that the clinic  
9 should have had a competent and skilled  
10 professional in the operating room to  
11 interpret the EMG tracings?

12 A. Yes.

13 Q. Hello?

14 MR. PARKER:

15 You got an answer, "yes."

16 THE WITNESS:

17 I said "yes."

18 EXAMINATION BY MR. BECKER:

19 Q. Are you assuming there was in  
20 fact a trained and skilled professional -- are  
21 you assuming there was in fact a trained and  
22 skilled professional competent to read and  
23 interpret EMG tracings during this surgery  
24 present during the operation?

25 A. Yes.



1 Q. And who would that person be?

2 A. That I don't know. It could be  
3 Dr. Cheek; it could be someone working with  
4 Dr. Cheek; it could be a technologist who was  
5 there.

6 Q. Well, are you aware whether  
7 technologists are licensed or permitted by  
8 their own society to interpret EMG tracings?

9 A. Actually, that's been a point of  
10 contention. What their society would like at  
11 present -- I don't know what the consensus is,  
12 but the electrodiagnostic technologists have  
13 at different times proposed, I believe,  
14 different things from having just a  
15 technologist have to be present, to having a  
16 physician have to be present, to have the  
17 physician intermittently present. And I  
18 believe there are different patterns of  
19 practice all over the country in that regard.

20 Q. Well, what is your understanding  
21 from reading Linda Gagnon's deposition as to  
22 whether she was skilled and competent  
23 interpreting EMG tracings?

24 A. I don't recall from her  
25 deposition. If you know --

1 Q. I want you to assume it's true  
2 that she felt that she was not skilled and  
3 trained in interpreting EMGs.

4 A. I'm sorry. Could you repeat  
5 that?

6 Q. Please assume it's true that she  
7 has testified that she wasn't skilled in  
8 interpreting EMG tracings.

9 A. Okay.

10 Q. Then it would be incumbent upon  
11 Dr. Cheek or someone else, some other  
12 physician or clinical neurophysiologist, to  
13 interpret those EMGs, correct?

14 A. Again, it might be. It depends  
15 on what she means by "interpret EMG." In  
16 other words, if you stimulate a nerve root and  
17 you get a burst of activity, it really doesn't  
18 take a great deal of expertise to interpret  
19 that as being a response, which is why in many  
20 cases a technologist is in the OR for most of  
21 the procedure. And the supervising physician,  
22 or sometimes Ph.D., will come and  
23 intermittently at the start or at the end of  
24 the procedure or if there is a problem during  
25 it, or --

1 Q. well, how do you know --

2 MR. PARKER:

3 Mike --

4 MR. BECKER:

5 -- as to whether he stays in the  
6 surgery suite or not.

7 MR. PARKER:

8 Mike, you interrupted the  
9 answer, to begin with, and then you get to ask  
10 the next question which, in case I forget,  
11 I'll object to if it's the question you just  
12 posed.

13 MR. BECKER:

14 I am sorry, Doctor, I didn't  
15 mean to interrupt you, I thought you were  
16 done.

17 THE WITNESS:

18 I am. Go ahead.

19 MR. BECKER:

20 okay.

21 could I have my question back,  
22 then, Nancy?

23 THE COURT REPORTER:

24 I couldn't get it, because you  
25 were both talking at the same time.

1 MR. BECKER:

2 Okay. That's fair enough.

3 I guess I think I asked you how  
4 do you know what Lee Happel's practice is,  
5 whether he stays in the operating suite and  
6 monitors during the critical part of the  
7 surgery.

8 MR. PARKER:

9 Objection.

10 THE WITNESS:

11 Well, I guess I'd preface this by  
12 saying I'm not sure it matters outside of New  
13 Orleans what Lee Happel does --

14 MR. BECKER:

15 Okay.

16 THE WITNESS:

17 -- but it's -- do you want me to  
18 continue?

19 MR. BECKER:

20 Yes, sir.

21 THE WITNESS:

22 Okay.

23 -- but he is not present in all  
24 of the surgeries all of the time.

25 EXAMINATION BY MR. BECKER:

1 Q. Do you know whether or not when  
2 you come to the critical part of the surgery,  
3 once the patient is open in their spinal cord  
4 surgery, that he is present during the actual  
5 resection of the lesion of the lipoma?

6 A. I don't really know.

7 Q. Okay.

8 A. But I would guess that sometimes  
9 he's there and, depending on the competence of  
10 the technologist who is assisting him,  
11 sometimes he may not be.

12 Q. Okay. Doctor, you understand,  
13 and maybe I didn't make this clear to you,  
14 that in Ohio physicians -- experts have to  
15 state an opinion within a reasonable degree of  
16 medical probability. They can't guess, okay?

17 A. Okay. Well, then --

18 Q. So please don't guess any  
19 further, okay?

20 A. Within a reasonable degree of  
21 probability that's my response, then.

22 Q. What is your response?

23 A. That sometimes Dr. Happel is in  
24 the OR the whole time and sometimes he's not,  
25 depending on the competence of the

1       technologist working with him.

2           Q.           Well, how do you know that?

3           A.           Because I talk with Dr. Happel  
4       and I talk with the technologists.

5           Q.           Do you appreciate that when you  
6       are interpreting EMGs that one has to be there  
7       and interpret it on an online and realtime  
8       basis?

9           A.           Yes.   Someone would have to do  
10      that.

11          Q.           Are you of the opinion that they  
12      utilized appropriate instrumentation during  
13      this spinal cord monitoring?

14          A.           As far as I can tell, yes.

15          Q.           What type of instrumentation are  
16      you assuming they utilized?

17          A.           Well, for somatosensory evoked  
18      potential recording, I am assuming that they  
19      used a Nicolet or similar system.   For the  
20      EMG, my impression is that the recollection as  
21      to exactly what equipment was used is not  
22      clear.   But in someone's deposition, I  
23      believe -- or in a letter from some -- one of  
24      the people who were deposed, a Grass machine  
25      was used for EMG monitoring with a paper

1 readout.

2 Q. what kind of machine?

3 A. Grass.

4 Q. what does that mean?

5 A. That's Grass Corporation, founded  
6 by Albert Grass. It was one of the first EEG  
7 electrophysiology companies in America.

8 Q. well, are there any limitations  
9 for utilizing an EEG machine for EMG  
10 monitoring?

11 A. well, I think you can adequately  
12 record EMG with an EEG machine for the  
13 purposes of monitoring. As a matter of fact,  
14 when you are trying to interpret an EEG, the  
15 EMG signal is usually many times greater than  
16 the EEG signal as a constant cause of  
17 artifact. In other words, what I am trying to  
18 say is that an EEG signal is in terms of  
19 microvolts and an EMG signal is in terms of  
20 millivolts. They were using a system that  
21 would record at the microvolt level.

22 Q. They have different types of  
23 filters, EEG machines and EMG machine?

24 A. That is correct.

25 Q. And an EEG machine is much more

1 sensitive than an EMG machine?

2 A. To what?

3 Q. To lower decimals?

4 A. EEG machines typically record at  
5 the microvolt level, but their filter settings  
6 are not quite the same as an EMG machine for  
7 performing routine electromyography. However,  
8 the frequency spectrum of the EMG signal  
9 easily reaches into the EEG frequency range  
10 that's used in routine recordings. I don't  
11 know if they had opened the filters even  
12 further than that or done something to adapt  
13 the equipment, but even if they hadn't they  
14 should be able to easily record an EMG signal.

15 Q. well, are they able to do  
16 electrical stimulation with an EEG machine  
17 connected up with the machine?

18 A. Yeah. The one doesn't really  
19 have much to do with the other. The  
20 stimulator is a separate unit. It's just  
21 providing current that can be applied in  
22 different areas of the body. The EEG or even  
23 EMG recording equipment is simply for  
24 recording the output coming from the EMG  
25 muscle.



1 Q. Do you have any knowledge or  
2 experience in whether or not EMG records are  
3 maintained?

4 A. For intraoperative monitoring?

5 Q. Yes.

6 A. No. I would imagine in some  
7 places they are and some places they aren't,  
8 depending, probably, on the size of the  
9 record.

10 Q. I didn't hear the end of that  
11 answer.

12 A. Depending in part on the size of  
13 the record that is recorded.

14 Q. would you expect the EMG records  
15 to be maintained if within 24 hours after  
16 surgery there is evidence of an untoward  
17 event?

18 A. well, for how long?

19 Q. For a reasonable period of time.  
20 would you expect the EMG records to be  
21 maintained if there is evidence of an untoward  
22 event immediately post-op?

23 MR. PARKER:

24 Objection.

25 THE WITNESS:

1                   Of course, I don't know what you  
2                   mean by "a reasonable period of time." I am  
3                   sure the records were there immediately after  
4                   the surgery and the records were probably  
5                   there for several weeks after, but I don't  
6                   know how long they were kept there.

7                   EXAMINATION BY MR. BECKER:

8                   Q.            Okay. would you expect -- if  
9                   there was an untoward event where a nerve was  
10                  compromised during surgery, would you expect  
11                  the particular hospital to maintain the EMG  
12                  records for at least 6 months?

13                  MR. PARKER:

14                  Objection.

15                  THE WITNESS:

16                  Again, this is sort of a  
17                  medical-legal question, and what I would think  
18                  would probably happen --

19                  EXAMINATION BY MR. BECKER:

20                  Q.            why do you think it would  
21                  probably happen?

22                  A.            what I think would probably  
23                  happen is that whatever standard  
24                  record-keeping procedure is used for that  
25                  particular record would be employed in this

1 same situation, whether there was an untoward  
2 event or not.

3 Q. would you think that the records  
4 would be particularly maintained if there was  
5 an untoward event?

6 MR. PARKER:

7 Objection.

8 THE WITNESS:

9 That's what I just said. I don't  
10 think there would be a different practice  
11 employed in record storage. If they already  
12 had a particular practice in place I think  
13 they would maintain that, but this is highly  
14 speculative.

15 EXAMINATION BY MR. BECKER:

16 Q. well, I guess I don't understand  
17 what your expertise is, then. It's not in  
18 intraoperative monitoring, correct?

19 A. It's in clinical neurophysiology.  
20 So, for instance, I am the director of a  
21 clinical neurophysiology residency program. I  
22 have participated in the board that creates  
23 the examination for the added qualification in  
24 clinical neurophysiology. Clinical  
25 neurophysiology is a fairly broad field that

1 encompasses intraoperative monitoring. So,  
2 for example, if the need arose and they said  
3 someone now has to give a lecture on  
4 intraoperative monitoring to the residents or  
5 to perhaps even some anesthesiologists, I  
6 could be called upon to do that. In other  
7 words, I am familiar with the literature and I  
8 certainly talk to other people around the  
9 country, not just to Dr. Happel, who are  
10 engaged in the practice of intraoperative  
11 monitoring, but I do not personally do it.

12 Q. Well, do you know whether or not  
13 neuromuscular blockades should be avoided in a  
14 patient who is having lipoma untethered if he  
15 shows signs, preoperatively, of light  
16 weakness?

17 MR. PARKER:

18 Objection to form. Also asked  
19 and answered.

20 THE WITNESS:

21 I think, unfortunately, you are  
22 looking for a black-and-white answer. I know  
23 that you could go to different medical centers  
24 and you could get different responses. It  
25 depends in part on what the surgeon wants as

1 far as stabilizing the patient. In addition,  
2 if you were to say, "If there is a  
3 neuromuscular blockade can we perform  
4 monitoring?" well, the answer would be "yes,"  
5 because it's always a matter of degree.

6 EXAMINATION BY MR. BECKER:

7 Q. Okay.

8 A. And there are references in the  
9 literature that would support that. You can  
10 do motor evoked potentials on the spinal cord,  
11 stimulating it directly. You can stimulate  
12 the nerve roots, as was the concern in this  
13 case, directly and you can have a partial  
14 neuromuscular blockade, and you will find that  
15 being done at a number of centers.

16 Q. And how do you know that, Doctor?  
17 Through what other people told you?

18 A. That is correct.

19 Q. I got you.

20 A. And from the literature. There  
21 is a recent textbook, "EEG," by Ebersole and  
22 Pedley, and if you look in the chapter on  
23 intraoperative monitoring it's discussed in  
24 several different places.

25 Q. Is that a reliable textbook?

1           A.           That is one of the most reliable  
2 textbooks.

3           Q.           Can you spell the last name of  
4 that again, Ebersole?

5           A.           Ebersole is spelled as it would  
6 sound, E-B-E-R-S-O-L-E.

7           Q.           What is the other name?

8           A.           Pedley, P-E-D-L-E-Y. Pedley is  
9 the chairman of neurology at Columbia  
10 University, and Ebersole, I believe, is at the  
11 University of Chicago.

12          Q.           And there is a section in  
13 there -- what is the name of the textbook?

14          A.           I believe it's "Principles and  
15 Practice of Electroencephalography."

16          Q.           And does it discuss EMG  
17 monitoring?

18          A.           It discusses EMG monitoring in  
19 context of intraoperative monitoring. There  
20 is a chapter on intraoperative monitoring.

21          Q.           What other things fall under  
22 clinical neuropsychological specialties such  
23 as yourself?

24          MR. PARKER:

25                       objection to the form.

1 THE WITNESS:

2 I don't think you meant to say  
3 "neuropsychological," did you?

4 MR. BECKER:

5 No, I don't. Excuse me, I  
6 misspoke. Neurophysiological items.

7 THE WITNESS:

8 So you mean what are the  
9 different areas of clinical neurophysiology?

10 EXAMINATION BY MR. BECKER:

11 Q. Yes, just give me a few, please.

12 A. Sure. There is  
13 electroencephalography, which can be broken  
14 into adult and pediatric and neonatal.

15 Q. That's known in jargon as an EEG?

16 A. Correct.

17 Q. Go ahead.

18 A. There is epilepsy monitoring,  
19 which is continuous EEG recording either from  
20 the scalp or using intracranial electrodes  
21 with simultaneous video monitoring.

22 Q. Okay.

23 A. There is polysomnography, which  
24 is the overnight recording of EEG and other  
25 physiological parameters for people with sleep

1 disorders.

2 Q. Okay.

3 A. There is intraoperative  
4 monitoring.

5 Q. Okay.

6 A. Those are the main areas of  
7 clinical neurophysiology. The only one I  
8 haven't mentioned would be electromyography.

9 Q. Why didn't you mention that?

10 A. Because we sometimes divide  
11 clinical neurophysiology into central versus  
12 peripheral. All of the ones I mentioned first  
13 were central. Electromyography would  
14 peripheral.

15 Q. Is that in your specialty, or  
16 not?

17 A. I don't practice  
18 electromyography, although I have had  
19 additional training in it.

20 Q. You don't practice  
21 electromyography, Doctor?

22 A. No. What I am saying is that I  
23 don't practice routine EMG. That's typically  
24 performed in the outpatient setting with a  
25 needle exam of muscles and stimulating nerves.



1 Q. Okay.

2 A. However, I am involved  
3 extensively in the monitoring of EMG.

4 Q. You lost me. Please repeat that.

5 A. I said, however, I am involved  
6 extensively in the monitoring of EMG in other  
7 settings such as --

8 Q. Give me an example.

9 A. -- such as during EEG for  
10 movements, epilepsy monitoring in a similar  
11 way, and muscle tone and movement during  
12 polysomnography.

13 Q. But if you take your work in the  
14 sleep studies, your work in epilepsy and  
15 EEGs --

16 A. And evoked potentials.

17 Q. -- evoked potentials, does that  
18 account for at least 90 percent of your actual  
19 clinical professional time?

20 A. Well, in academics your time is  
21 divided in a number of different ways. But of  
22 my clinical professional time, I would say  
23 it's about 90 percent of it, yes.

24 Q. And the other 10 percent would be  
25 what?

1 A. Seeing patients in a clinic.

2 Q. But as far as actually doing  
3 intraoperative monitoring, overseeing  
4 intraoperative monitoring, counseling  
5 anesthesiologists relative to intraoperative  
6 monitoring, that is something that you do not  
7 do in your professional practice, correct?

8 A. That's correct.

9 Q. I may have cut you off and I  
10 don't mean to, Doctor. We were talking about  
11 Lee Happel, and you had told me -- or at least  
12 one thing that you may have consulted with him  
13 on. Were there others that you haven't  
14 mentioned?

15 MR. PARKER:

16 Objection to the form. But go  
17 ahead and answer.

18 THE WITNESS:

19 No.

20 EXAMINATION BY MR. BECKER:

21 Q. Did you ever discuss with Lee  
22 Happel whether he knew of Dr. Schwartz?

23 A. I don't recall asking him that.

24 Q. Did you tell Lee Happel you were  
25 an expert on a medical-legal case involving

1 intraoperative monitoring?

2 A. I think at some point I did  
3 mention that to him, yes.

4 Q. You don't think -- you don't  
5 recall whether he asked or you told him who  
6 the plaintiff's expert was?

7 A. No.

8 Q. And did you tell him what the  
9 allegations of the plaintiff were in this  
10 case?

11 A. No, I don't believe I did. I  
12 just asked him the question that I had  
13 mentioned earlier this afternoon to you.

14 Q. Is Dr. Lee Happel, is he within  
15 your department?

16 A. Yes.

17 Q. Does he have an official title?

18 A. Well, he is a professor of  
19 neurology.

20 Q. Well, I guess what I meant is:  
21 Is he considered, like, chair of the  
22 Department of Intraoperative Monitoring, if  
23 there is such a thing?

24 A. There isn't such a thing, but,  
25 yes, he would be considered as the person who

1 is in charge of intraoperative monitoring.

2 Q. Do you have an opinion whether or  
3 not intraoperative monitoring helps to reduce  
4 iatrogenic injuries?

5 A. I believe in general it does.

6 Q. Why do you believe that?

7 A. Well, intraoperative monitoring,  
8 per se -- in my own more direct experience I  
9 am involved in EEG intraoperative monitoring  
10 for patients undergoing carotid  
11 endarterectomy, And in that situation I  
12 believe it's been shown to be a useful tool.  
13 Also it intuitively makes sense that it would  
14 be helpful.

15 Q. Why does it intuitively make  
16 sense?

17 A. Well, because if you are worried  
18 about compromising a neural structure and you  
19 can monitor its function you might be able to  
20 detect if the function has been interrupted.

21 Q. Do you know whether or not the  
22 anesthesia agents called Pavulon and Zemuron  
23 are neuromuscular blockers?

24 A. Yes, they are.

25 Q. Would you agree with me that the

1 use of neuromuscular blockades potentially  
2 compromises the validity and the reliability  
3 of EMG monitoring?

4 MR. PARKER:

5 Asked and answered.

6 THE WITNESS:

7 It could if it was overdone.

8 EXAMINATION BY MR. BECKER:

9 Q. Are you assuming that there --  
10 that there were EMG's leads appropriately  
11 placed in this case?

12 THE COURT REPORTER:

13 I didn't hear that.

14 THE WITNESS:

15 Can you repeat that?

16 EXAMINATION BY MR. BECKER:

17 Q. Are you assuming that Dr. Cheek  
18 appropriately placed EMG leads?

19 A. Yes.

20 Q. Okay. What is the basis of that  
21 assumption?

22 A. Well --

23 MR. PARKER:

24 It's an assumption, Mike. There  
25 is a basis to conclusions, and an assumption

1 is an assumption.

2 EXAMINATION BY MR. BECKER:

3 Q. why are you making that  
4 assumption? How's that?

5 A. I am making that assumption  
6 because I know indirectly that Dr. Cheek has  
7 been highly regarded in the field of  
8 intraoperative monitoring. I know that --

9 Q. How do you know that?

10 A. -- I know that he's at one of the  
11 premier institutions for clinical  
12 neurophysiology.

13 Q. What's that? What institution is  
14 that?

15 A. You didn't know he was at the  
16 Cleveland Clinic?

17 Q. Dr. Cheek?

18 A. Yeah.

19 Q. I didn't know he was at the  
20 Cleveland Clinic. You mean today?

21 A. No. At the time of the  
22 intraoperative monitoring procedure, that's  
23 where he was.

24 Q. Oh, I see. You know where he is  
25 today?

1 A. I have no idea.

2 Q. Do you know whether or not --

3 A. Wait. Let me backtrack on that.

4 He may have said -- it may be in his  
5 deposition, which I have read. I just don't  
6 recall.

7 Q. You haven't read his deposition?

8 A. I did look at his deposition,  
9 yes.

10 Q. Well, is your deposition -- is  
11 his deposition referenced in your notes?

12 A. I only received it a few days  
13 ago.

14 Q. You only received what a few days  
15 ago?

16 A. His deposition.

17 Q. Of whom?

18 A. Dr. Cheek.

19 Q. You committed to act as an expert  
20 on this case before you saw what Dr. Cheek had  
21 to say about what happened and didn't happen?

22 A. That is correct.

23 Q. Do you have an opinion where the  
24 EMG leads should have been placed for this  
25 particular surgery, what part of this young

1 man's body?

2 A. Yes. I think they should have  
3 been placed where I believe Dr. Cheek  
4 described in his deposition he placed them,  
5 which would have been on either side of the  
6 anal sphincter and on both legs.

7 Q. Okay.

8 Do you have an opinion whether  
9 there was any -- this young man had a  
10 subclinical neurogenic bladder?

11 A. No, I don't.

12 Q. Doctor -- and please appreciate  
13 that I am being sincere in this question. I  
14 understand you are a clinical  
15 neurophysiologist and you run the residency  
16 program there. But during -- and you've  
17 indicated you can potentially lecture on the  
18 topic, "intraoperative monitoring," but in the  
19 real world and from a practical standpoint  
20 during a month, do you ever actually engage --  
21 have a discussion or come into the topic of  
22 intraoperative monitoring?

23 MR. PARKER:

24 Objection to form.

25 THE WITNESS:



1 No. I don't in any routine way.

2 EXAMINATION BY MR. BECKER:

3 Q. Do you have any -- you said --  
4 have you ever lectured on intraoperative  
5 monitoring?

6 A. Yes. I believe I have to our  
7 residents and fellows.

8 Q. Okay. When you lecture in  
9 intraoperative monitoring do you use kind of  
10 like a PowerPoint presentation or do you have  
11 handouts or none of the above?

12 A. None of the above. And the only  
13 reason I say that because it's been several  
14 years at least since I have done that.

15 Q. Have you done it once or more  
16 than once?

17 A. Several times.

18 Q. Does Dr. Happel lecture to the  
19 residents on intraoperative monitoring?

20 A. Yes.

21 Q. Does he do it more often than you  
22 do?

23 A. Yes.

24 Q. Do we agree that if they were  
25 doing the train of four on the ulnar nerve

1 that doesn't necessarily reflect what's  
2 happening in the lower part of this child's  
3 body?

4 A. well, that is correct, if you are  
5 referring to during a surgical manipulation.

6 Q. Right. But as far as utilizing  
7 the site of the ulnar nerve from the train of  
8 four, that wouldn't necessarily reflect  
9 whether or not there is an agent, a  
10 neuromuscular blockade impacting the lower  
11 part of the spinal column?

12 A. Only by inference.

13 Q. Do you know, Doctor, whether or  
14 not it's Dr. Happel's practice for himself to  
15 perform the train of four, or does he allow  
16 anesthesiology to do that?

17 MR. PARKER:

18 Objection.

19 THE WITNESS:

20 I don't know in every case what  
21 his practice is.

22 EXAMINATION BY MR. BECKER:

23 Q. Can you agree with me, Doctor, if  
24 they did a train of four and hypothetically it  
25 was two out of four and then they augmented

1 the neuromuscular blockers, that there would  
2 likely thereafter for some period of time be  
3 a -- if they retested again be a zero out of  
4 four?

5 MR. PARKER:

6 Objection.

7 THE WITNESS:

8 I don't know. But if I was to  
9 speculate on what might be happening, assuming  
10 they were doing the monitoring, which includes  
11 stimulating nerve roots as they were going  
12 along, as long as they were getting responses,  
13 again, I don't think they would attend too  
14 much to the train of four. I am assuming they  
15 performed the monitoring, which included  
16 intermittently stimulating nerves --

17 MR. BECKER:

18 Okay --

19 THE WITNESS:

20 -- in the sciatic resection.

21 MR. BECKER:

22 -- you're not as --

23 MR. PARKER:

24 Mike. Are you finished, Doctor?

25 THE WITNESS:

1 Yes. I am finished.

2 MR. PARKER:

3 Okay. And I am going to move to  
4 strike.

5 EXAMINATION BY MR. BECKER:

6 Q. Are you assuming whether or not  
7 there was any -- strike that.

8 You stimulate by providing an  
9 electrical charge, correct?

10 A. Correct.

11 Q. What voltage or intensity are you  
12 assuming was done during these stimulations?

13 A. At some point I believe someone  
14 mentioned 100 milliamperes. I am not entirely  
15 sure about that, because I am just referring  
16 to some notes that I had made months ago. Is  
17 that correct?

18 MR. PARKER:

19 He's asking you what assumption  
20 you've made and you may or may not have made  
21 one. If you made one, tell him; if you  
22 haven't, tell him.

23 THE WITNESS:

24 I haven't. The only assumption I  
25 have made is that what was being done was

1 appropriate to the extent that they were  
2 receiving a proper response.

3 EXAMINATION BY MR. BECKER:

4 Q. Do you know anything about Dr.  
5 Cheek's drug and alcohol habits during June of  
6 1996?

7 A. I was recently informed that he  
8 did have difficulties with drugs and alcohol.

9 Q. Do you know of a machine called a  
10 Nicolet Viking?

11 A. Yes.

12 Q. What is that?

13 A. It's a system that can be used  
14 for intraoperative monitoring for evoked  
15 potentials or for EMG recording.

16 Q. And should they have used the  
17 Nicolet Viking in this case?

18 A. Well, they have other vendors to  
19 choose from. It would not be inappropriate to  
20 use a Nicolet Viking.

21 Q. Now, for the somatosensory evoked  
22 potential they used a machine called Cadwell.  
23 Are you familiar with that?

24 A. Somewhat.

25 Q. The somatosensory evoked

1 potential machine, the SSEP?

2 A. Yes.

3 Q. I believe it was called Cadwell.

4 Are you familiar with that machine?

5 MR. PARKER:

6 He just answered the question.

7 THE WITNESS:

8 Cadwell is a major manufacturer  
9 of EEG equipment.

10 EXAMINATION BY MR. BECKER:

11 Q. I am sorry. I didn't hear your  
12 answer, Doctor.

13 A. Cadwell is a major manufacturer  
14 of EEG and monitoring equipment.

15 Q. Do you know whether or not there  
16 is a software package available for the SSEP  
17 Cadwell machine such that it can also do EMG  
18 monitoring?

19 A. I do not.

20 Q. Let's go to your report, Doctor.  
21 You have it at hand?

22 A. One moment.

23 MR. PARKER:

24 Do you need a break, Doctor?

25 We've been at it for a while.

1 THE WITNESS:

2 It's okay.

3 MR. PARKER:

4 Everyone is okay. I am the only  
5 one suffering, Mike.

6 MR. BECKER:

7 How are you suffering, Alan?

8 MR. PARKER:

9 I've had a diet Coke and it was  
10 quite awhile ago, so I'm suffering. But go  
11 ahead.

12 THE WITNESS:

13 Yes, I am ready.

14 EXAMINATION BY MR. BECKER:

15 Q. In the second paragraph of your  
16 report, you referenced, Doctor, some -- "Some  
17 substantial guesses about negligence in the  
18 operative monitoring are being made." Do you  
19 see that?

20 A. Is that on the first page?

21 Q. Yes, sir. First page.

22 A. Yeah, I do see that.

23 Q. Are those your words? Is that  
24 your word, "guesses"?

25 A. Correct.

1 Q. Are you -- is it your opinion  
2 that the opinions and conclusions by Dr.  
3 Schwartz are not reasonable?

4 A. Yes.

5 Q. Why?

6 A. Well, in the materials I had  
7 initially, he assumed there was no anal  
8 monitoring. Subsequently -- or I guess he  
9 assumed that they didn't have enough equipment  
10 to record enough channels to do proper EMG  
11 monitoring. Then I received a letter where he  
12 acknowledged the fact that there may have been  
13 an additional piece of equipment, I believe  
14 the Grass system, that would have provided  
15 enough channels. So when I wrote my  
16 statement, Dr. Schwartz was unaware that they  
17 seemed to have adequate equipment to monitor  
18 all of the parameters that Dr. Cheek  
19 indicated.

20 Q. Well, didn't --

21 A. Then --

22 Q. Excuse me. Go ahead.

23 A. Then he made the point that under  
24 no circumstances should there be neuromuscular  
25 blocking, which is his opinion and it's not



1 held by everyone else, and that that would  
2 have prevented the recording -- in his  
3 estimation or his guess, of recording an EMG  
4 signal if one stimulated the nerve roots. And  
5 I don't -- I don't agree with that, either.  
6 Dr. Schwartz, like me, wasn't there. He is  
7 lacking certain data that would substantiate  
8 his doubts about the procedure, but because  
9 he's lacking certain information he's assuming  
10 that wrong things were done. So that's why I  
11 say "substantial guesses."

12 Q. okay.

13 Do you think Dr. Lee Happel would  
14 be a more appropriate expert to be supportive  
15 or critical of Dr. Cheek's conduct here than  
16 you?

17 MR. PARKER:

18 Objection. You are not entitled  
19 to that. That's not under Rule 26 discovery.  
20 I had probably ought to instruct the witness  
21 not to answer it, but I am not going to do  
22 that. Go ahead and answer it, Doctor, but I  
23 object.

24 THE WITNESS:

25 I think it's reasonable for me to

1 look over the information provided and give a  
2 response that is accurate about the case,  
3 about the questions raised, particularly, by  
4 Dr. Schwartz.

5 If you mean that somebody would  
6 make a more convincing expert witness because  
7 their daily work involves intraoperative  
8 monitoring, that may be. But if you are  
9 simply asking am I in a position to review the  
10 facts of the case and comment in a meaningful  
11 way about questions that have been raised by  
12 Dr. Schwartz and Neff, my answer would be yes.

13 EXAMINATION BY MR. BECKER:

14 Q. Do you have any criticism of Dr.  
15 Neff's opinions -- or disagreement?

16 A. In my statement I have a brief  
17 paragraph. Dr. Neff asserts that had the anal  
18 sphincter been monitored there would have been  
19 no bladder incontinence. However, the  
20 technologist recalls this was part of the  
21 monitoring routine. So as far as I could  
22 tell, Dr. Neff was, in his deposition that I  
23 had, basing his opinion on the absence of anal  
24 sphincter monitoring.

25 Q. To be fair to Dr. Neff, I think

1 he used the words "had it been appropriately  
2 monitored."

3 A. No, I think at that time there  
4 was some uncertainty as to whether or not it  
5 had been monitored at all.

6 MR. PARKER:

7 I think you are reading more  
8 into Neff than he said, Mike. Maybe he will  
9 change his testimony at trial.

10 MR. BECKER:

11 I will stand by my comment. And  
12 I guess you are going to have to wait until  
13 trial, Alan, for that one.

14 MR. PARKER:

15 Yeah. I guess.

16 EXAMINATION BY MR. BECKER:

17 Q. There is no indication in this  
18 chart whether there was any type of -- where  
19 the EMG leads were placed, correct?

20 A. well, Dr. Cheek in his  
21 deposition --

22 Q. No.

23 A. -- says he had a routine  
24 placement --

25 Q. Not deposition. Chart.

1           A.           That I don't know. From what I  
2 have seen in the chart I haven't seen a clear  
3 description of where they were placed.

4           Q.           There is no indication in the  
5 chart who was actually interpreting the EMG  
6 monitoring during surgery, is there?

7           A.           Again, this whole situation seems  
8 to revolve somewhat around assuming that  
9 absence of proof is proof of absence. I think  
10 you could turn the question around. If you  
11 are asking was everything that happened  
12 documented? No, it doesn't appear to have  
13 been.

14          Q.           Have you ever testified in a  
15 courtroom?

16          A.           Yes.

17          Q.           How many times?

18          A.           Once.

19          Q.           Did you answer me?

20          MR. PARKER:

21                       Once.

22          THE WITNESS:

23                       Yes, I said "once."

24          EXAMINATION BY MR. BECKER:

25          Q.           What is your understanding as to

1 what Dr. Gerson will say on this -- relative  
2 to this case, what involvement he had?

3 MR. PARKER:

4 Dr. Gerson hasn't been deposed.

5 MR. BECKER:

6 Right. I know that.

7 THE WITNESS:

8 I don't know what he will say  
9 about this case.

10 EXAMINATION BY MR. BECKER:

11 Q. You have not been told what he is  
12 going to say?

13 A. No. I don't know if he's going  
14 to say -- no, I don't know what he's going to  
15 say. No one has said to me Dr. Gerson is  
16 going to say anything in particular.

17 Q. And do you know whether or not  
18 Gerson is going to say that he was present  
19 during the surgery?

20 A. I don't know.

21 Q. And do you know whether or not  
22 Dr. Gerson has already told individuals that  
23 he wasn't present at surgery?

24 MR. PARKER:

25 Objection.

1 EXAMINATION BY MR. BECKER:

2 Q. If you know.

3 A. Mr. Parker mentioned that he may  
4 have said he was there or he wasn't there.  
5 All I get was something very ambiguous, so I  
6 have no idea.

7 Q. You mentioned in your report that  
8 the documentation could have been a little bit  
9 better by Dr. Cheek?

10 A. Well, I think there's -- there's  
11 minimal documentation. I think, in view of  
12 this case, it would be helpful now in  
13 retrospect to have some more documentation.

14 Q. You say that Gerson and Cheek's  
15 and Anesthesia could have been more detailed.  
16 See that in the bottom left of your letter?

17 A. I am not saying necessarily they  
18 should have been more detailed, but certainly  
19 they could have been more detailed.

20 Q. Is it your experience that those  
21 kind of documentations are more detailed?

22 A. My experience has been variable.  
23 And, again, my day-to-day interaction with  
24 intraoperative monitoring is very limited.

25 Q. You say in the beginning of that

1 paragraph, "I find no clear evidence to  
2 support the view the intraoperative monitoring  
3 was inadequately performed."

4 Do you find any clear evidence  
5 that the intraoperative monitoring was  
6 adequately performed?

7 A. Yeah. The statements of the  
8 people who were involved. In particular, that  
9 is Dr. Cheek. I believe the --

10 Q. In the chart or the deposition?

11 A. In the depositions.

12 Q. Oh, okay. So when you say "clear  
13 evidence" you are referring to the depositions  
14 as well as the chart?

15 A. Well, I would also say I have no  
16 reason to suppose that something was not done  
17 correctly.

18 Q. Are you aware of any cases where  
19 there was a lipoma resection where the child  
20 or person preoperatively was asymptomatic of  
21 any neurogenic bladder and immediately post-op  
22 had total dysfunction of the bladder?

23 A. No. I don't have any direct  
24 experience with that.

25 MR. BECKER:

1 Doctor, I am going to end on that  
2 note. I thank you for your time.

3 And let's go off of the record.  
4 I want to chat with Alan for just a moment.

5 MR. PARKER:

6 while we are on the record, we  
7 will read and sign.

8 THE VIDEOGRAPHER:

9 We're going off of the record.  
10 It's 1:01 p.m.



1  
2  
3  
4  
5 WITNESS' CERTIFICATE  
6  
7  
8  
9

10 I, DR. BRUCE FISCH, read or have had the  
11 foregoing testimony read to me and hereby  
12 certify that it is a true and correct  
13 transcription of my testimony, with the  
14 exception of any attached corrections or  
15 changes.  
16  
17  
18  
19


20 \_\_\_\_\_  
(Witness' Signature)  
21  
22  
23  
24  
25

REPORTER'S CERTIFICATE

I, NANCY LAPORTE, Certified Court Reporter, State of Louisiana, do hereby certify that the above-mentioned witness, after having been first duly sworn by me to testify to the truth, did testify as hereinabove set forth;

That the testimony was reported by me in shorthand and transcribed under my personal direction and supervision, and is a true and correct transcript, to the best of my ability and understanding;

That I am not of counsel, not related to counsel or the parties hereto, and not in any way interested in the outcome of this matter.

  
NANCY LAPORTE  
Certified Court Reporter  
State of Louisiana

