

1 STATE OF FLORIDA
2 DIVISION OF ADMINISTRATIVE HEARINGS

3 RICHARD W. MERRITT, D.C.,

4 Petitioner,

5 vs. CASE NO: 04-1149RX

6 DEPARTMENT OF HEALTH,

7 Respondent,

8 and

9 THE FLORIDA INSURANCE COUNCIL,
10 INC.; THE PROPERTY-CASUALTY
11 INSURERS ASSOCIATION OF AMERICA;
12 THE AMERICAN INSURANCE ASSOCIATION;
13 THE NATIONAL ASSOCIATION OF MUTUAL
14 INSURANCE COMPANIES; ET AL.,

15 Intervenors.

16 _____ /

17 VOLUME I

18 FINAL HEARING

19 The above-entitled matter came on to be heard
20 before the Honorable DIANE CLEAVINGER, Administrative Law
21 Judge, at the Division of Administrative Hearings, Desoto
22 Building, 1230 Apalachee Parkway, Tallahassee, Florida, on
23 July 19, 2004, commencing at 9:25 a.m.

24 Reported by:

25 CLARA C. ROTRUCK

Court Reporter

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1 INDEX TO WITNESS

2 WITNESS PAGE

3 DAVID MARCARIAN

4 Direct Examination by Mr. Gimbel 42
 Voir Dire Examination by Mr. Koch 49

5 Voir Dire Examination by Mr. Newman 50
 Direct Examination (continued) by Mr. Gimbel 52

6 Cross Examination by Mr. Newman 72
 Cross Examination by Mr. Koch 79

7 Redirect Examination by Mr. Gimbel 103

8
 9
 10
 11
 12

13 EXHIBITS

14 NUMBER MRKD RCVD

15 For the Petitioner:

16 1 and 2 premarked and received

17 3 43 43
 4 54 54

18 For the Respondent:

19 1 90 96
 20 2 94 Withdrawn
 3 101 101

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 22
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 24
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FOR THE RECORD REPORTING TALLAHASSEE FLORIDA 850.222.5491

NOTE: Preliminary discussions were removed due to lack of relevance. The next page starts with Mr. Marcarian's actual testimony. There was nothing removed from his actual testimony.

10 Raise your right hand for me, please.

11 Whereupon,

12 DAVID MARCARIAN

13 was called as a witness, having been first duly sworn to

14 speak the truth, the whole truth, and nothing but the truth,

15 was examined and testified as follows:

16 DIRECT EXAMINATION

17 BY MR. GIMBEL:

18 Q Would you state your name for the record?

19 A My name is David Marcarian.

20 Q And are you employed?

21 A Yes.

22 Q How are you employed?

23 A I'm the owner of a company that manufactures

24 surface EMG equipment, MyoVision. The company name is

25 Precision Biometrics. I'm the president of the company.

FOR THE RECORD REPORTING TALLAHASSEE FLORIDA 850.222.5491

1 Q Would you briefly describe your educational
2 background for the Court?

3 A I have an undergraduate degree in physics and I
4 have a Master's degree in psychology, specializing in
5 psychophysiology. My Master's thesis project was
6 utilization of surface EMG in evaluating hand controls used
7 in the helicopter cockpit.

8 Q Now, have you ever testified in a proceeding
9 before as an expert witness on SEMG?

10 A Yes, I have.

11 Q Approximately how many times?

12 A Approximately seven or eight times.

13 Q Have you ever testified in Florida as an expert
14 witness on SEMG?

15 A Yes, I have.

16 Q Let me hand you what has been identified -- let me
17 show you your CV.

18 MR. GIMBEL: It has been previously marked and I
19 believe agreed or stipulated to as Exhibit B in this
20 proceeding in a pretrial stip. It is Mr. Marcarian's
21 CV.

22 THE COURT: This would be Exhibit 3.

23 (Whereupon, Petitioner's Exhibit No. 3 was marked
24 for identification and received into evidence.)

25 /////

1 BY MR. GIMBEL:

2 Q Let me ask you, Mr. Marcarian, first of all, could
3 you identify that document?

4 A Yes, this is my CV.

5 Q And you prepared that yourself?

6 A Yes, I did.

7 Q Talk to me, if you will, about your experience at
8 NASA and what you did at NASA with regard to surface EMG.

9 A When I was at NASA, we were looking at using --
10 well, you know those problems with helicopters, people have
11 to fly in helicopters with all four lens, and it was an
12 issue for the LH-1, which is a helicopter being developed
13 for the future. And they wanted to try to integrate all
14 controls normally, which are -- utilized four lens into one
15 hand controller.

16 So we were trying to integrate the F-16 hand
17 controller into the helicopter cockpit. And I noticed in
18 doing my research on that that people would come out of the
19 cockpit after doing a simulation and complain about muscle
20 fatigue. So I developed a procedure which utilizes surface
21 EMG to evaluate the different types of hand controllers to
22 see how much fatigue they created.

23 Q Did you receive a grant from NASA for purposes of
24 completing that or studying that project?

25 A Yes. The grant covered my cost for school and

1 living expenses. It was a stipend basically.

2 Q And you worked for NASA how long?

3 A For three years.

4 Q You also indicate that you were awarded an
5 approximate half a million dollar grant from the National
6 Institute of Health. Could you explain what that grant was,
7 the purpose of that grant?

8 A Yes, when I was doing my Master's degree and
9 finished my Master's thesis, I applied for a grant to the
10 National Institute of Health while I was still a student,
11 and for developing a device for measuring muscle activity
12 and several other physiologic variables. And the NIH
13 awarded the grant. I was the principal investigator on the
14 grant.

15 Q And how old were you at the time you received a
16 half million dollar grant from the National Institute of
17 Health?

18 A I was 27 or 28, I believe.

19 Q And of course you're, what, 29 now?

20 A I'm 30.

21 Q Let me point you to -- also under Recognition, you
22 indicate five states, surface EMG course endorsed by
23 Michigan, Ohio, Texas, Washington and Louisiana. Would you
24 explain what that signifies?

25 A Yes. Also Wisconsin is on there.

1 What happened was individuals started utilizing
2 surface EMG in the late '80s, early '90s, and a lot of the
3 states decided they wanted to try to regulate it and have
4 more control over how it was utilized. So they felt there
5 was a need for training.

6 Various state associations contacted me because of
7 the work I had done with surface EMG -- and at the time
8 hardly anybody knew anything about it at all, there was very
9 little known about it -- and asked me to present a course on
10 it, which I did for the different states to meet legal
11 requirements in those states.

12 Q You also indicate that -- well, let me make sure I
13 understand. So you developed a training course?

14 A What happened was I developed a training course.
15 I got involved in using -- developing surface EMG out of a
16 need. People asked me to build the stuff but my main
17 interest was more in the research type end of it. And I did
18 a lot of testing myself and became pretty knowledgeable
19 about how the product works and how the device functioned.

20 And they really and truly needed someone who was
21 objective, who could present factual evidence about surface
22 EMG. And so the various state associations, because of the
23 fact that my course was through the chiropractic colleges,
24 they were very conservative, they felt that they needed
25 someone very conservative to present the class. And that is

1 what I did.

2 Q Now, did your training in these programs or
3 courses deal with factors that may affect the results of an
4 application of SEMG?

5 A All the time. I teach how to do the test
6 properly, how to avoid problems with the test. That is
7 where my expertise lies also, is -- and I have written a
8 paper with several other authors on proper technique and
9 protocol to follow.

10 Q Have you ever taught college courses or a college
11 course of study with regard to SEMG?

12 A Yes. I currently teach at Palmer College of
13 Chiropractic, I teach at Life Chiropractic College West and,
14 I have taught on and off for Hahnemann College of
15 Chiropractic in Canada. Am I talking fast?

16 THE COURT: Yes.

17 THE WITNESS: Okay, I will talk slower.

18 BY MR. GIMBEL:

19 Q You also indicate that you were a presenter to a
20 panel of experts on a surface EMG conference. How were you
21 selected for that?

22 A They selected individuals -- I'm going to speak
23 slowly. They selected individuals who were essentially
24 experts in the area. They had probably seven or eight
25 different individuals that were experts in some respect with

1 regard to surface EMG. And I was selected for my expertise.

2 Q Now, how many experts were on that panel?

3 A I believe there was seven or eight. One of the
4 reasons they asked me to do this was that as a manufacturer,
5 obviously people think that I have a particular bias because
6 I make the product. And they wanted me there so they could
7 essentially find more problems than there were in the
8 device, because they assumed that I would be very biased.
9 And they asked me back after the first one because I was
10 not.

11 Q So there was a second panel of experts?

12 A There was a second panel.

13 Q And you also participated in that?

14 A Yes.

15 Q Now, have you ever administered SEMG?

16 A All the time.

17 Q How many times would you guess?

18 A I have probably done over a thousand tests myself,
19 personally.

20 Q Have you interpreted the results of that SEMG each
21 time?

22 A Yes. And in addition I interpret test from other
23 individuals. They fax tests to me. I go over them all the
24 time.

25 MR. GIMBEL: Your Honor, I would tender the

1 witness as an expert in the principles of SEMG.

2 THE COURT: Voir dire?

3 MR. KOCH: If I may voir dire?

4 THE COURT: Sure.

5 VOIR DIRE EXAMINATION

6 BY MR. KOCH:

7 Q Mr. Marcarian, are you a licensed chiropractor?

8 A No, I'm not.

9 Q Are you a licensed medical doctor?

10 A No, I'm not.

11 Q When you provide your training, are you providing
12 your experience as a manufacturer of simply how to use your
13 device and read the printout or the screens that your device
14 produces?

15 A No, I'm teaching how to interpret from any device.

16 It doesn't matter what it is.

17 Q What I mean is, whether it's your device or
18 another device, are you teaching the students or whomever
19 how to perform the test, how to read the test, is that
20 correct?

21 A Yes, I'm teaching them how to read the test, what
22 the results mean.

23 Q But you are not teaching them in terms of how to
24 use that test for purposes of diagnosis, is that correct?

25 A Not specifically. You know, it's a gray area.

1 There are times when there are things that I do know about
2 and there's times when things I don't know about, but it
3 varies. So sometimes I do, sometimes I don't.

4 Most of the time it depends on what the situation
5 is. I know certain patterns. For example, scoliosis is a
6 great example. I can definitely say someone's got a
7 scoliosis based on the surface EMG. I have done that.

8 Q In your lay opinion, is that correct?

9 A That is correct. The pattern correlates with
10 scoliosis, for example.

11 MR. KOCH: That is all I have.

12 VOIR DIRE EXAMINATION

13 BY MR. NEWMAN:

14 Q Your work at NASA, none of that work had anything
15 to do with diagnosing injuries?

16 A Not at all.

17 Q And you don't have any experience related to
18 whether surface EMG tests should be reimbursed as a
19 medically necessary procedure -- medically necessary as a
20 diagnostic test, rather, for auto accident victims?

21 A I didn't understand the question.

22 Q None of your experience relates to whether surface
23 EMG should be reimbursed as a medically necessary diagnostic
24 test for auto accident victims?

25 A Actually, it does.

1 Q How so?

2 A State Farm has met with me several times to go
3 over the details. I taught a course in Canada to all the
4 insurers in the province of Ontario to help them put
5 together a manual, which they did. I actually have it on my
6 computer for how to reimburse for surface EMGs. So I've
7 been directly involved in that.

8 Q What -- how can you relate this to what aspects of
9 surface EMG?

10 A Proper technique, when it's appropriate to do.
11 The results, how to interpret the results in terms of
12 comparison to normal type tests versus abnormal type tests.
13 Things like that.

14 Q Do you have any formal training on the indications
15 or contraindications for any particular chiropractic
16 treatment?

17 A Do I have formal training? No, I do not.

18 Q Mr. Marcarian, do you have any formal training as
19 to how to develop treatment plans for chiropractic care?

20 A No, I do not.

21 Q Mr. Marcarian, is it fair to say that you're
22 simply an expert on the technology behind surface EMG and
23 not its application for treatment of injured motor vehicle
24 accident victims?

25 A Actually, my expertise does involve treatment of

1 those injuries. What I did as part of my grant was to -- I
2 did review all the literature with regard to neuromuscular
3 re-education and treatment of those that have had strokes.
4 Neuromuscular re-education was a bit part of my grant so,
5 yes.

6 Q You never developed a treatment plan for a patient
7 who has been injured in an automobile accident have you?

8 A No, I personally have not done that, no.

9 Q And you have not received formal training on the
10 indications or contraindications for a treatment plan for an
11 individual who has been injured in an automobile accident?

12 A That is correct.

13 MR. NEWMAN: No further questions, Your Honor.

14 THE COURT: I recognize him in the area of surface
15 EMG.

16 MR. GIMBEL: Thank you, Your Honor.

17 DIRECT EXAMINATION (continued)

18 BY MR. GIMBEL:

19 Q Mr. Marcarian, how long have you been involved
20 with surface EMG?

21 A That really is -- I don't like to talk about that
22 actually. Since 1983, approximately. Is that 20 years?

23 Q 21 years.

24 A Approximately 21 years.

25 Q Describe the theoretical basis in a technical way.

1 A Yes, it's very simple. The device functions very
2 similar to an EKG.

3 What occurs is there's a depolarization that
4 occurs to the cellular level. Basically, you've got
5 electrical activity that's generated at the cellular level
6 and the electrical activity runs down the muscle fiber.
7 We're measuring at the surface the amount of electrical
8 activity generated, a summation, if you will, of all the
9 depolarizations in the area. Just like an EKG does, there's
10 no difference.

11 Q What is the purpose of an SEMG?

12 A The purpose is to measure muscle tension. There's
13 all different ways you can use that. Betty Crocker uses it
14 to determine whether a food is chewable or not by looking at
15 the master muscles. There's a lot of things you can do with
16 muscle tension.

17 Q Now, you have developed a machine called
18 MyoVision?

19 A That is correct.

20 Q Would you just briefly describe that machine?

21 A It is a device that measures muscle activity and
22 it has probes that are used for doing static EMGs, which are
23 the device -- the tests here on the left. And it has probes
24 for dynamic EMG, which is motion EMG, on the right.

25 And it does exactly the same as all other EMGs for

1 years, and then it takes a signal from the skin electrodes
2 attached to the skin. And I'll be showing that in this
3 presentation --

4 Q Since you've already referred to that, let's -- go
5 ahead and take us through what has been marked Exhibit 4.

6 (Whereupon, Petitioner's Exhibit No. 4 was marked
7 for identification and received into evidence.)

8 THE WITNESS: I can provide this on CD for the
9 Court. It's on my computer.

10 BY MR. GIMBEL:

11 Q Can you go ahead and take us through your
12 presentation?

13 A Essentially, this explains that we're measuring a
14 summation of electrical activity, where we place the
15 electrodes. It is like a voltmeter for measuring muscle
16 tension. It's a very simple device.

17 In comparison to needle EMG, it's a very different
18 kind of measure. Everyone has heard about needle EMGs. You
19 place a needle inside the skin and you are looking at a
20 particular motor unit or a motor neuron and you are looking
21 for patterns of activity associated with injury with a
22 needle EMG.

23 Surface EMG is a very reliable technique in
24 comparison only because it's easy to place the pads,
25 electrodes, on the skin two times in a row. You can very

1 easily place electrodes on a place you can see and mark,
2 while with a needle EMG you have to place them inside.

3 Since they go inside the skin, they're indwelling,
4 you can't really see where they're going so it's very
5 difficult to do the test twice and get the same results.

6 The two tests you can see on the left, this is
7 static EMG. We take the probes, suction them out of the
8 skin, and we measure muscle tension, get a quick measure of
9 muscle tension. It's like a stethoscope in a way. We are
10 looking at different levels of the spine, taking a quick
11 reading. And you see this graph here, these bars are
12 proportional to muscle tension. The longer the bar sticks
13 out, the more muscle tension there is. You see this person
14 has a lot of tension in their back on this side, and also
15 down in here, but less here.

16 Now, with dynamic EMG, what we're doing is taking
17 EKG electrodes, we attach them to the skin as you see here,
18 and we perform a measure where we measure activity as they
19 move. So here they're performing three flexions in a row,
20 and we graph the activity over time.

21 This is a static measure in a standing neutral
22 posture. This is a dynamic measure. So you can compare,
23 this is like an X-ray, while this is more like video
24 fluoroscopy or motion X-ray in that you are showing the
25 muscle response to movement.

1 As an example of a lumbar flexion interpretation,
2 the left and right here are blue and red. Blue is left, red
3 is right. This is the person bending forward. When they're
4 bent forward fully, muscles shut off. That's what normal
5 people do, muscles shut off when they're bent forward. They
6 stand back up, muscles pull them to pull up. And then you
7 see there, it's standing neutral again, the muscles shut
8 off.

9 Then abnormal case. Everyone knows what it's like
10 to have a back injury, you bend forward, it hurts a lot.
11 What happens, your muscles go into tension, right,
12 everything goes into spasm. Because what happens in injury,
13 the person bends forward, the muscles start firing like
14 crazy because it hurts, essentially, to put it in a
15 nutshell.

16 So you can see irritability in soft tissue injury,
17 while you see readings are very smooth and normal when there
18 is no problem. So you can see readings in flexion, you can
19 see irritability, and you can see how muscles fire
20 different, right and left sides, typically when there's soft
21 tissue injury.

22 You can also perform the test in the cervical
23 spine. This is a good example of a person who was
24 injured -- I did the test myself. This was on an individual
25 who was beaten over the head with a bottle in a bar. And

1 this was then after the injury. And this was then four
2 months, after being adjusted for four months.

3 You can see how everything changes. You can see
4 the irritability goes away in this here. This person was
5 released after this. So it helped determined that she had
6 actually improved dramatically, which does alter treatment
7 protocol by the way.

8 This is an example of someone injured in an
9 accident. You can see how when they bend forward, muscles
10 are very irritable and they fire considerably. Obviously,
11 because there was an injury the muscles fire.

12 You can see we've just documented the presence of
13 the injury by using this tool. This, again, is normal for
14 muscles to shut off when they're bent forward. It is three
15 flexions in a row, just to show reproducibility. You can
16 see there is three in a row.

17 Q I didn't hear what you said.

18 A We like to do the test three times in a row so we
19 can show the reproducibility. Typically, the
20 reproducibility is so high on this test. And if there isn't
21 good reproducibility, there's probably a reason for it. So
22 you want to make sure that you validate the test.

23 This is an example of -- I did the test. This
24 individual came into the clinic -- this was actually at a
25 school -- and was claiming to be injured. He could barely

1 walk and he was about 300 pounds. He had a really difficult
2 time walking.

3 And I tested him. And these test results to me
4 came out to be normal, there was very little irritability,
5 the muscles shut off with flexion. And in showing the test
6 results to the individual, he admitted that he was trying to
7 keep a workers' comp claim going and was not injured at all.

8 Q So this test shows not only if there is an injury,
9 but it also shows the absence of injury?

10 A This is what it did in this case. In
11 approximately eight out of the ten cases that I do that are
12 workers' comp related cases, the patient will actually admit
13 when you show them something objective that they're not
14 injured. And that is very common these days.

15 One of the cases I did a few years back, the
16 attorney dropped a lawsuit against an automobile insurer
17 because of the test I did. The results showed that he was
18 not injured. He was looking for a half a million dollars.
19 And they dropped the case after I did the test on him. So
20 it can be used both different ways.

21 There is a lot of public research on it. This was
22 published in the Journal of Occupational Environmental
23 Medicine. It showed that there was statistically
24 significant differences between normals and abnormals in
25 those with low back pain in both static EMG and dynamic EMG.

1 Q How recent was that study?

2 A This was in June of 2000, I believe, maybe 2001.

3 This study showed that in whiplash, that muscle tension, the
4 trapezius fires abnormally, there is a lot of activity when
5 there is whiplash.

6 It was interesting, it was talking about
7 palpation. Many times people will say, "Why not just
8 palpate," and he points out the answer why we don't palpate.
9 "The use of palpation to assess either muscle point
10 tenderness or muscle spasm is questionable because manually
11 tested musculoskeletal signs have shown a poor interexaminer
12 reliability."

13 Q What is palpation?

14 A That is when you touch the patient, you put your
15 hands on them to feel for muscle tension. We are doing it
16 electrically so it's a much more reliable way of doing it.
17 Palpation is very, very subjective. This just basically
18 shows that there was an increase in muscle activity in the
19 whiplash cases.

20 Q Now, is whiplash an injury likely to result from
21 an automobile accident?

22 A Yes. And as it says here, probably this is -- the
23 increased activity is a learned guarding response, the
24 muscles actually start guarding because -- to avoid further
25 injury. And it says it's an important aspect in the

1 development of chronic pain.

2 And in this case specifically, all patients were
3 in rear-end collisions, rear-end motor vehicle collisions.
4 All the subjects that were in the abnormal group were in
5 rear-end collisions. So it shows a direct relation between
6 muscle tension and motor vehicle accidents. This is an
7 excellent paper, it just came out two weeks ago --

8 MR. NEWMAN: Your Honor, if I may, I object first
9 on hearsay grounds, and I have let it go a couple of
10 times. But if he is going to go through article after
11 article and just read a particular article that has
12 been no foundation laid for admissibility on their own,
13 I believe that is improper.

14 THE COURT: Response?

15 MR. EARLY: Your Honor, I know this is not my
16 witness but in the prehearing stipulation in this case,
17 the parties waived authenticity and hearsay.

18 MR. GIMBEL: That was my understanding,
19 Your Honor.

20 MR. NEWMAN: It is very difficult with these
21 slides to identify what -- are these entered into
22 evidence?

23 MR. GIMBEL: It has been premarked and accepted.
24 It's on the prehearing stipulation. It is Exhibit 4, I
25 believe.

1 THE COURT: That y'all have already agreed to?

2 MR. GIMBEL: Yes.

3 THE COURT: Okay.

4 MR. EARLY: When you burn a copy for the Judge,
5 you can burn copies --

6 THE WITNESS: Yes. These were all published
7 studies. They were in a group I provided to the
8 Department of Health.

9 MR. GIMBEL: They were in that package --

10 THE WITNESS: Except for this --

11 MR. GIMBEL: Except for that one there?

12 THE WITNESS: Yes.

13 THE COURT: Okay. You all have already agreed to
14 it.

15 THE WITNESS: Should I continue?

16 BY MR. GIMBEL:

17 Q Yes.

18 A They are all saying essentially the same thing.

19 The most recent study -- this particular doctor said that it

20 was extremely useful for him in that he has patients that

21 are claiming to be in extreme pain and that he actually

22 utilizes it to determine whether or not it makes sense to

23 give them narcotics. It's been very helpful to him that

24 way, because he is protecting himself also when the DEA says

25 how come you are providing narcotics. And he has some

1 evidence to support it.

2 This particular study also, again, supports
3 surface EMG showing that it was -- the patterns were a
4 little more information than needle EMG in evaluating low
5 back pain. 26 out of 30 patients with low back pain had
6 abnormal dynamic flexion studies, dynamic EMGs.

7 One thing I noticed was the reliability was
8 questioned. Test 3 test for reliability .92 and .97. .92
9 inflexion, .97 re-extension. Basically, again, pointing out
10 that it's extremely reliable, this particular test. 92
11 percent of the time it's exactly the same. That's
12 equivalent to -- it's way higher than blood pressure or any
13 other tests that are --

14 Q What is blood pressure?

15 A Blood pressure is .6 to .8, approximately. So
16 depending on the test. This is just an example showing that
17 blood pressure is not considered that reliable but it's
18 still used every day.

19 Perhaps I should skip though these?

20 Q Yes.

21 A This just came out, also, that --

22 Q That's a July 2004 study?

23 A I just received this two days ago. This was a med
24 analysis of 44 studies and it basically showed that there
25 was very good specificity and sensitivity of surface EMG

1 data. This just came within the last three days.

2 As far as clinical, basically the point here is
3 that doctors are detectives, they use this stuff as
4 evidence. They use it as evidence to come up with -- it's
5 not the only piece of evidence used but it's one piece of
6 evidence.

7 For example, in this particular study, you looked
8 at low back pain, the history of radiological evidence
9 combined with surface EMG to make a decision. As he stated
10 in the paper, ultimately the utilization of SEMG for this
11 particular patient helped the author identify an area of
12 weakness that may have led to compensable injury in the
13 workplace if the patient had been allowed to resume the
14 proposed position of repetitive heavy lifting.

15 So he did a test on this particular position where
16 the person was supposed to work and was able to show that he
17 had problems. It is an important assessment tool for use as
18 a therapeutic planning indicator to measure medical legal
19 insurance objectification. Those are conclusions published
20 in the Journal of Canadian Chiropractic Association.

21 We've already discussed the CPT code, is that
22 correct?

23 Q No, we didn't. But we'll get through that, you
24 don't have to go through all that.

25 A So it does show surface EMG and shows that it has

1 to be used in contemporary practice.

2 Q Let me ask you something while you're on that. Do
3 you know what a CPT code is?

4 A Yes.

5 Q What is a CPT code?

6 A It is a code that the American Medical Association
7 has come up with to describe a particular diagnostic test or
8 procedure.

9 Q Do you know how a procedure obtains a code?

10 A Yes. It is described right here. It says, "CPT
11 codes describe a procedure or service identified with a
12 five-digit code and descriptor nomenclature. Inclusion of
13 a" --

14 THE COURT: Where is that coming from?

15 THE WITNESS: This is the American Medical
16 Association --

17 MR. GIMBEL: This will be Exhibit -- let me get
18 that.

19 THE WITNESS: I provided that to the DOAH also.
20 It was just on the page. It says that, "Specifically,
21 inclusion of a descriptor and its associated five-digit
22 identifying code number in this category of CPT codes
23 is generally based upon the procedure being consistent
24 with contemporary medical practice and being performed
25 by many physicians in clinical practice in multiple

1 locations."

2 And that is surface EMG, the code is right here.

3 It says, "Dynamic surface EMG is a five-digit code."

4 BY MR. GIMBEL:

5 Q What I want to make sure I understand from you is
6 surface EMG has been given a code by the American Medical
7 Association?

8 A That is correct.

9 Q And to receive a code, it has to be recognized as
10 an accepted procedure performed by many physicians in
11 various locations?

12 A That's correct.

13 MR. NEWMAN: Objection, Your Honor. That exceeds
14 the scope -- to the extent he has given an opinion on
15 that over and above what the CPT manual says or
16 whatever else is in evidence, he is not qualified to
17 give an opinion on that.

18 MR. GIMBEL: He's not giving an opinion. He is
19 just testifying to the fact that it has a CPT code.

20 THE COURT: I'm not taking that as an opinion.

21 BY MR. GIMBEL:

22 Q Go ahead and continue.

23 A Essentially, the only thing that has been an issue
24 that I've noticed that people used the technology assessment
25 as I read this -- a paper to support the position that

1 surface EMGs doesn't have any validity or reliability or
2 whatever. And the problem is that these papers, that
3 there's only two of them, simply skipped and don't have in
4 their literature review multiple papers that -- as I have
5 presented here. They're not even in the review so it can't
6 be considered as a valid review of papers when there are no
7 papers that are important.

8 And it does not apply -- this particular paper,
9 the AMA paper, does not apply to chiropractic. It says
10 itself that it doesn't comment on the use of surface EMG,
11 the diagnosis of central nervous system disorders, problems
12 with coordination, fatigue, psychological disorders or pain
13 independent of nerve damage.

14 The second one was the -- it also says that it's
15 not intended to include all proper methods of care for a
16 particular medical problem. Again, it's essentially missed
17 a whole bunch of research. The Clinical Utility paper is
18 the same thing. This was published in Neurology in 2000 and
19 there was only four of the 44 surface EMG studies that were
20 reviewed in this paper.

21 Essentially, the device is an electronic form of
22 palpation which actually helps to separate out electronic --
23 it's a way of doing palpation without having to actually
24 measure with your hands. It's totally objective and
25 quantitative so it's not subject to subjectivity.

1 One of the valuable features of using surface EMG
2 is when you palpate and you feel what feels like a lot of
3 muscle tension and you -- and the readings are electrically
4 very high. That indicates it's most likely something
5 electrically active, which is associated with spasm.

6 If you do the readings and the readings are very
7 low but you palpate and feel tension, you actually are
8 looking at what's called contracture, where the muscles have
9 shut down and stopped firing. It is a different problem.

10 Anyway, just to summarize, surface EMG is great
11 for documenting injury, as I've shown, and helps rule out
12 malingering, which is great. And it provides evidence for
13 justifying continuation or ending treatment. That basically
14 covers all the details.

15 MR. GIMBEL: Your Honor, that is Exhibit 4, I
16 believe, if I counted correctly.

17 THE COURT: Yes. You are talking about the
18 presentation is Exhibit 4?

19 MR. GIMBEL: Yes, the CD. And I believe they
20 either have or we will get them copies. I think you
21 have that.

22 MR. KOCH: I would have no idea. We would request
23 a current copy.

24 MR. EARLY: Sure. We will get you one.

25 MR. GIMBEL: We will do that.

1 BY MR. GIMBEL:

2 Q Now, let me ask you, Mr. Marcarian, whether or not
3 you have an opinion as to whether SEMG has applicability in
4 the medical science world?

5 MR. NEWMAN: Objection, Your Honor. That is
6 outside of the scope of his proffer. He has already
7 admitted he has no training with regard to either
8 chiropractic care or as a medical doctor. He has never
9 developed a treatment plan for a patient.

10 I believe that is well outside the scope of his
11 authority as an expert in this case. He may be an
12 expert on the technology behind surface EMG, but he
13 can't give an opinion as to how it should be applied in
14 a clinical setting.

15 MR. GIMBEL: Your Honor, I'm not asking him how or
16 to develop a specific plan. He talked about he had
17 been consulted by many physicians and doctors with
18 regard to results and what that may or may not mean
19 with respect to patients. He has testified as an
20 expert as to whether or not patients have or do not
21 have injuries or whether treatment is acceptable or
22 assisted a doctor with regard to --

23 THE COURT: It is overruled. You may answer.

24 THE WITNESS: Repeat the question, I forgot.

25 /////

1 BY MR. GIMBEL:

2 Q Do you have an opinion as to whether SEMG has
3 applicability in the medical science world?

4 A My opinion is that without question it has
5 applicability in the medical science world.

6 Q Do you have an opinion as to whether SEMG has
7 medical value?

8 MR. NEWMAN: Same objection, Your Honor.

9 MR. GIMBEL: Same response. Again, I'm not asking
10 him to determine what value it may --

11 THE COURT: It's overruled. Go ahead.

12 THE WITNESS: I forgot the question again.

13 BY MR. GIMBEL:

14 Q Do you have an opinion as to whether SEMG has
15 medical value?

16 A Yes. My opinion is that it has tremendous medical
17 value.

18 Q Based on your knowledge and experience and your
19 interaction with physicians and doctors, let me ask you what
20 types of injuries are generally associated with the use of
21 SEMG?

22 MR. NEWMAN: Your Honor, same objection. I guess
23 I'm preserving it at this point.

24 He is not a doctor, he is not a chiropractor. If
25 he is going to testify based on what other people told

1 him how they use it, that is one thing. But to give an
2 opinion --

3 THE COURT: Yeah, you're getting awfully close to
4 the line where we're going to require some medical
5 expertise or chiropractic expertise.

6 MR. GIMBEL: I'm not tendering him as a medical
7 expert. So that is fine.

8 BY MR. GIMBEL:

9 Q Do you have an opinion as to whether SEMG renders
10 information that would assist the doctor in detecting injury
11 or noninjury with respect to a particular patient?

12 MR. NEWMAN: Same objection.

13 MR. GIMBEL: I'm not asking him to diagnose the
14 injury --

15 MR. NEWMAN: How does he know what information is
16 helpful or not to a physician if he doesn't know how to
17 develop a treatment plan?

18 THE COURT: Other than he has been consulted by
19 them and a practical reality. I will give you the
20 guidance that I'm using in my own mind, and that is as
21 to whether we're getting into -- what the actual
22 diagnosis would be from a medical perspective.

23 I think as a practical matter, just because he has
24 been consulted on numerous -- this man has a lot of
25 experience in this area and in working with other

1 fields of expertise. So to the extent where those may
2 overlap, I think he can testify based on these facts
3 and give an opinion based on those facts. But I don't
4 think he can really lapse into diagnosis.

5 THE WITNESS: May I speak?

6 THE COURT: His objection is overruled.

7 THE WITNESS: To answer your question, I have to
8 say honestly that the patients are the ones that seem
9 to get the most out of this in that it really has
10 helped -- from what I hear from doctors, I hear this
11 all the time, that it has helped to separate out those
12 that are injured from those that are not, and get those
13 that are injured taken care of and those that are not
14 removed from the system.

15 So it's been a really good tool because it
16 objectively shows something that has always been
17 subjective in the past. And that is the advantage of
18 it. It's an electronic, objective form of looking at
19 one piece of evidence, just like any detective would
20 do.

21 You don't want to avoid evidence as a detective.
22 You don't want to just see DNA evidence. You don't
23 want to avoid everything else. You want to gather all
24 the evidence together and tailor a profile. And that
25 is how people use it.

1 So it has been extremely valuable for most doctors
2 that I know.

3 MR. GIMBEL: I have no further questions,
4 Your Honor.

5 THE COURT: Cross?

6 MR. NEWMAN: May I cross first as Intervenor?

7 THE COURT: Do you care?

8 MR. KOCH: No objection. Judge, it might be
9 appropriate to take a short break at this time.

10 THE COURT: Yes, let's take 10 minutes.

11 (Brief recess.)

12 MR. GIMBEL: Your Honor, before we get going on
13 cross, that is Exhibit 4. That was the CD. He just
14 burned three others.

15 MR. EARLY: Before we get going, too, it kind of
16 occurred to me, I do have copies of the cases that I
17 had referenced.

18 THE COURT: I like copies of cases, especially
19 when the Internet is down.

20 Cross. Who is doing it?

21 MR. NEWMAN: I'm going to start, Your Honor.

22 CROSS EXAMINATION

23 BY MR. NEWMAN:

24 Q Mr. Marcarian, you manufacture and market a
25 surface EMG machine. The current version is called the

1 MyoVision 8000, is that correct?

2 A That is correct.

3 Q There have been previous models of that, I assume?

4 A Yes.

5 Q What is the name of your company?

6 A Precision Biometrics.

7 Q And you're the sole shareholder of Precision
8 Biometrics?

9 A That is correct.

10 Q How long has Precision Biometrics been in the
11 business of manufacturing and marketing surface EMG
12 equipment?

13 A Since 1989.

14 Q Is it fair to say since 1989 Precision Biometrics
15 has gross sales in excess of \$10 million for surface EMG --

16 MR. GIMBEL: I'm going to -- I'm sorry, I thought
17 you were through.

18 BY MR. NEWMAN:

19 Q Is it fair to say that since 1989, Precision
20 Biometrics has gross sales exceeding \$10 million for surface
21 EMG equipment?

22 MR. GIMBEL: I'm going to object to relevancy.

23 THE COURT: It is overruled. Go ahead.

24 THE WITNESS: To be honest, I don't know. I
25 really don't know, believe it or not. It could be.

1 I'm a typical inventor type. I have no idea about the
2 financial side of it even though I own the company.
3 I'm not sure exactly. I know how many units we have
4 sold but I don't know the numbers. But probably, I
5 guess.

6 BY MR. NEWMAN:

7 Q Mr. Marcarian, is it fair to say that since 1989,
8 Precision Biometrics has sold between 4,500 and 5,000
9 surface EMG machines?

10 A Yes.

11 Q Is it fair to say that the average price for those
12 machines exceeds 5,000 per unit?

13 A That is correct.

14 Q So one could do the math and tell what the
15 gross --

16 A Also you have to remember that some machines are
17 sold at retail, which is that; and some are sold to dealers
18 and distributors, which is a discount, quite significant.
19 So it affects the -- yes, total sales, retail, it makes
20 sense, I guess. I'm not good at numbers.

21 Q Fair to say 5,000 times 5,000 would be
22 \$25 million?

23 A Whatever you came up with the math, that's --

24 Q You don't have any reason to dispute that?

25 A No. The only reason I dispute it's just that,

1 again, the units that are sold -- we manufacture for other
2 companies that are sold at a significant discount, which
3 I -- that affects -- actually, my personal sales are
4 affected significantly by that. But if you want to say the
5 actual theoretical sales, amount of these instruments,
6 that's correct.

7 Q Mr. Marcarian, you're appearing here today without
8 any charge for your time to Dr. Merritt, is that correct?

9 A That is correct.

10 Q You're also paying for your own travel and lodging
11 cost?

12 A Yes.

13 Q And you've also agreed to fund up to \$10,000 of
14 the litigation cost Dr. Merritt incurs in this proceeding?

15 A That is questionable. I mean, we have -- I have
16 not decided what that's --

17 Q You have had discussions with Dr. Merritt where
18 you agreed to fund a portion of the attorney fees and costs
19 he incurs in this proceeding?

20 A We had discussions about it and I was not sure
21 whether it was a loan or not. We haven't really decided.

22 Q Yes or no? Have you agreed to fund a portion of
23 the litigation costs for this proceeding?

24 A Temporarily, yes. When I heard that insurance
25 companies were involved and purchased our law firm, I

1 thought it would be really wrong to not.

2 Q Mr. Marcarian, is it true that your company has
3 not sold any surface EMG equipment to medical doctors in
4 Florida?

5 A I don't know the answer to that, but probably not
6 very many if we have. I think what I told you the other day
7 was that we didn't, but I just took a quick look at my
8 database --

9 Q Mr. Marcarian, let me ask the question again. Is
10 it true that Precision Biometrics has not sold any surface
11 EMG equipment to medical doctors in the state of Florida?

12 A I don't know the answer to that. When I answered
13 it in my deposition, I said specifically since 1996, so
14 previous to that -- we went in business in 1989, and I'm not
15 sure --

16 Q Well, is it true that let's say prior to the year
17 2002 that virtually 100 percent of Precision Biometrics'
18 sales have been to chiropractors and not medical doctors?

19 A That is correct.

20 Q As we sit here, can you identify any medical
21 doctors who have purchased a surface EMG machine from
22 Precision Biometrics from the State of Florida?

23 A I cannot. Again, I don't know who my dealers have
24 sold to. So I don't always know.

25 Q Mr. Marcarian, isn't it true that the results of

1 surface EMG alone do not indicate or contraindicate any
2 particular chiropractic treatment?

3 A I'm not a doctor.

4 Q Can you go to page 77 of your deposition, please?

5 A Sure.

6 Q Do you recall me taking your deposition?

7 A Yes. 77?

8 Q Yes, sir.

9 A Sure.

10 Q And I asked you a question, "Does the static
11 surface EMG indicate or contraindicate any particular
12 chiropractic treatment for patients who have been injured in
13 a motor vehicle accident?" Your answer was, "No, not on its
14 own." Do you recall that question and answer?

15 A Yes. I guess I did not understand your question
16 you just asked me though. This says specifically static
17 surface EMG, and the question you just asked me, it was not
18 the same question.

19 Q Your answer on page 77 --

20 A You asked me, "Does the static surface EMG
21 indicate" -- static surface EMG. I'm not sure -- maybe I
22 didn't understand your question.

23 Q The question was, "Does the static surface EMG
24 indicate or contraindicate any particular chiropractic
25 treatment for patients who have been injured in a motor

1 vehicle accident?" Your answer was, "No, not on its own."

2 A Right, but that is not the question you just asked
3 me.

4 Q Is the answer different for dynamic surface EMG?

5 A I don't know, I would have to think about this.

6 No, it's the same answer.

7 Q Mr. Marcarian, is it your opinion that surface EMG
8 documents soft tissue injury?

9 A If you're more specific, do you mean all surface
10 EMGs, static, dynamic?

11 Q Dynamic EMG.

12 A Dynamic surfaces -- in my opinion, does it
13 document soft tissue injury? In combination with other
14 things, I would say yes.

15 Q It only tells you that in combination of other
16 tests, correct?

17 A It can definitely help. It's an important part of
18 the puzzle.

19 Q It doesn't tell what is causing the tissue injury?

20 A It can't tell what's causing anything. It is a
21 device like a blood pressure measurement shows your blood
22 pressure. It doesn't tell you what causes the blood
23 pressure to be high.

24 MR. NEWMAN: No further questions, Your Honor.

25 THE COURT: Mr. Koch, or Ms. Schneider, any cross?

1 MR. KOCH: Yes.

2 CROSS EXAMINATION

3 BY MR. KOCH:

4 Q Mr. Marcarian, I would like to ask you to pull
5 back up your CD presentation that you had on the screen
6 earlier, please.

7 A Okay. Any particular place?

8 Q Yes. If you could go to the part on the CPT
9 codes.

10 A Sure.

11 MR. KOCH: Judge, may I approach?

12 THE COURT: Yes. You don't have to ask me that.

13 Just walk on up there.

14 BY MR. KOCH:

15 Q If you will just hold it there. Now, in your
16 analysis there, I just want to make sure we have the same
17 thing. Is that from 2004?

18 A No.

19 Q Do you know what that is from?

20 A This was actually from 2002, I believe. And this
21 is actually -- this is from the chiro code book. It is the
22 same thing, but it's not in the same format. It's exactly
23 the same, but a different format. They licensed it from the
24 American Medical Association.

25 Q Would you just please read into the record the

1 first paragraph there under "Motion Analysis"?

2 A Sure. It says, "Codes 96000 to 96004 describe
3 services performed as part of a major therapeutic or
4 diagnostic decision-making process. Motion analysis is
5 performed in a dedicated motion analysis laboratory; i.e., a
6 facility capable of performing videotaping from the front,
7 back and both sides, computerized 3-D kinematics,
8 3-D kinetics and dynamic electromyography. Code 96000 may
9 include 3-D kinetics and stride characteristics. Codes
10 96002 to 96003 describe dynamic electromyography. And that
11 report codes 95860 through 95875 in addition to the motion
12 analysis codes."

13 Q Then would you read your entry for 96002, please?

14 A Dynamic service -- down here?

15 Q Yes.

16 A "96002, dynamic surface electromyography, during
17 walking or other functional activities, one to twelve
18 muscles."

19 Q And then the entry for 96004?

20 A "Physician review and interpretation of
21 comprehensive computer-based motion analysis, dynamic
22 plantar pressure measurements, dynamic surface
23 electromyography during walking or other functional
24 activities and dynamic fine-wire electromyography with
25 written report."

1 Q Thank you, Mr. Marcarian. Can we agree that there
2 is absolutely nothing in there about static surface EMG?

3 A Right here there is, actually. "For static
4 surface EMG" -- do you want me to read this?

5 Q Yes.

6 A -- "for posture analysis use 95999."

7 Q And do you know what that is?

8 A Yes.

9 Q Do you have it there?

10 A No. I know what it's though, I'm pretty sure.

11 Q Just to be accurate, is this that entry right
12 there?

13 A That is motion analysis, yes.

14 Q Yes?

15 A Oh, not right there.

16 Q 95999?

17 A Yes, that's it right there.

18 Q Could you read that into the record?

19 A It says, "Unlisted neurological or muscular
20 diagnostic procedure."

21 Q Unlisted?

22 A For static EMG, not dynamic.

23 Q Now, for dynamic, it talks about having a
24 dedicated motion and analysis laboratory, correct?

25 A No, that is not correct. They're two separate

1 things. If you see Code 96002, it describes dynamic
2 electromyography. There is no "motion" in this sentence at
3 all.

4 Q In the second sentence, "motion analysis"?

5 A Right. There dynamic electromyography is a part
6 of motion analysis, a subset of it. Here you can see that
7 they didn't include motion analysis in Code 96002 to 96003,
8 or it would have said "motion analysis." It says, "dynamic
9 electromyography."

10 Q Let's read that entry for 96002 again. It talks
11 about during walking or other functional activities?

12 A That is correct. It doesn't say anything about
13 motion analysis in this code. This is a dynamic surface EMG
14 code. It says specifically.

15 Q 96004 talks about motion analysis, does it not?

16 MR. GIMBEL: Your Honor, asked and answered.

17 THE COURT: It is. Move on.

18 BY MR. KOCH:

19 Q Isn't it fair to say that most chiropractors that
20 you are acquainted with don't have a dedicated motion
21 analysis laboratory in their facility?

22 A I don't know. I don't think so, I have never
23 seen -- actually, I have never seen one myself.

24 Q Now, Mr. Marcarian, when it comes to doing your
25 training for using surface EMG, my understanding is that

1 your training is that you prefer that practitioners who use
2 your device do a surface EMG analysis when the patient first
3 comes in, and then a few weeks later, then a few weeks later
4 and a few weeks later, is that correct?

5 MR. GIMBEL: Excuse me, Your Honor, I don't
6 remember ever talking about that under oath.

7 THE COURT: Repeat your question for me. Are you
8 talking about his recommendations to --

9 MR. KOCH: How to use his own device. He has
10 testified about training, how to use his own device.

11 THE COURT: I will be honest with you. I don't
12 think it was covered in direct, but I'm going to let
13 you go forward with it since I think it's relevant.

14 THE WITNESS: Are you asking me what I do for
15 training or --

16 BY MR. KOCH:

17 Q You do provide training on how to use your
18 MyoVision 8000?

19 A Yes.

20 Q And as part of that training, isn't it your
21 recommendation that it be used on a regular basis, i.e.,
22 when the patient first comes in, you monitor the patient a
23 few weeks later, monitor the patient again a few weeks later
24 and so forth?

25 A That is not anything that I've ever said. I can

1 tell you what I have said, but that is not it.

2 Q You have a copy of your deposition that we took a
3 few weeks ago, don't you?

4 A Yes. I think it was last Wednesday. There is
5 logic behind what I'm doing, but I don't remember discussing
6 it. Maybe we did.

7 Q Would you look on page 38 of the transcript?

8 A (Witness complies.)

9 Q If you would, you can begin with the question on
10 line 4. I asked you, "It seems that part of your testimony,
11 if I understand it correctly, is that by your training and
12 what you do for training in terms of using surface EMG is
13 that a practitioner should use it -- well, let me ask the
14 question. How do you train in terms of when the surface EMG
15 should be used?"

16 You asked me to rephrase the question. "I'm not
17 sure I understand what you mean." Then I asked you, "What
18 is your recommendations in terms of how should a health care
19 provider use a surface EMG, use your device?"

20 You asked me, "For which, EMG static or dynamic or
21 both?" My question was then, "Both." Then you answered,
22 "Well, static EMG, what I recommend" --

23 MR. GIMBEL: I apologize. Is there a question
24 posed to the witness, and there's a different answer
25 that he received and he is trying to impeach the

1 witness with the deposition? Or is he just reading?

2 THE COURT: Where are you going with it? If this
3 is for impeachment, then I suggest you ask the exact
4 same question if you can.

5 BY MR. KOCH:

6 Q I'll rephrase the question. I just asked here and
7 again in the deposition, the training using the surface EMG,
8 dynamic and static.

9 A Yes, I see my testimony in the deposition. I
10 said, no, the answer I said was no. The question says, "Is
11 your recommendation like with the static EMG, that the
12 dynamic also be done every four to six weeks?" The answer,
13 "No."

14 So that was the answer to your question. That is
15 why I couldn't answer it. Dynamic is only done when you
16 need to prove injury or you want to look for -- use dynamic
17 EMG whenever you want to, or from my perspective, in the
18 ring of injury, workers' compensation, things where there is
19 a question about whether or not someone is injured or not.
20 That is when -- that is when it's -- I think it's absolutely
21 necessary for documenting the presence or absence of injury.

22 Q Yes, that's with regard to dynamic, but what was
23 your answer with regard to static EMG?

24 A I can't find it here.

25 MR. GIMBEL: Your Honor, I object. There is

1 either a question to the witness or -- is he reading
2 from his deposition?

3 THE WITNESS: It is interesting --

4 THE COURT: Hang on. This is improper impeachment
5 if that is what you are trying to do. And that is the
6 only I time you can use the deposition.

7 MR. GIMBEL: I'm trying to understand this.

8 THE COURT: You may ask this witness a question.

9 THE WITNESS: Can I say something?

10 THE COURT: No, you may not.

11 MR. GIMBEL: No.

12 BY MR. KOCH:

13 Q It is correct that with regard to the static
14 EMG -- perhaps my question before was not sufficient, but
15 with regard to static EMG is that your training and your
16 recommendation for use of that machine is to use that static
17 EMG for a patient when they first come in and then every
18 four to six weeks after that, is that correct?

19 A Yes, that is what I recommend that they do, yes.
20 Just like you do blood pressure when a patient comes in.

21 Q You've mentioned that this surface EMG is similar
22 to taking blood pressure or I think you testified earlier
23 here that it's like using a thermometer?

24 A Yes.

25 Q I think you mentioned that as an objective device

1 to measure?

2 A Yes.

3 Q Now, just to go back to your presentation here,
4 you have a number of articles that were included in that
5 presentation, professional articles written by doctors or
6 chiropractors?

7 A Yes.

8 Q You have already stated you are not a medical
9 doctor or a chiropractor. Did you review those articles
10 yourself and select them and put them on your Web site or on
11 your PowerPoint presentation?

12 A Did I review them myself? I would have to say
13 most of them were reviewed by me, some were sent to me when
14 they were published because of my interest in it by
15 different individuals in the medical professions.

16 Q Would it be fair to say that you also have those
17 similar articles on your Web site, MyoVision.com?

18 A That is correct.

19 Q Would it also be fair to say that you only use
20 those articles that in your opinion are favorable to using
21 your device, would that be correct?

22 A The answer to the question is I don't know.
23 There's times when there's studies that have unfavorable
24 information included with favorable information and I put
25 that there. But, in general, the ones that I usually end up

1 getting are ones that are favorable to surface EMG.

2 Q But you do know there are articles, professional
3 articles, peer-reviewed articles, that are unfavorable with
4 regard to the use of surface EMG, is that correct?

5 A That is correct.

6 Q And you generally do not post those on your Web
7 site or use them in your PowerPoint presentations, do you?

8 A Actually, the ones that are not favorable are on
9 my Web site. You can go to my Web site and you will see
10 they are discussed under the section under Legal. And
11 under -- in Response to Denials, they're discussed in
12 detail.

13 Q So then even by the database you maintain of these
14 legal articles, there is conflicting opinion, is that
15 correct?

16 A There is conflicting opinion about some of the
17 stuff, yes. Not all of it though, no.

18 Q And would it be fair to say, Mr. Marcarian, you
19 are a fairly astute businessman?

20 A I don't know.

21 Q Let's look at some of the facts. You started with
22 a grant in the mid '80s, a half a million dollars, did some
23 research I guess improving or looking into what was then
24 existing technology, is that correct?

25 A That is correct.

1 Q And then you developed your device and parlayed
2 that into your own private company, which has been
3 successful now for, what, 15 years or more?

4 A It was actually required by the grant.

5 MR. GIMBEL: Excuse me, Your Honor. Again, I
6 don't recall -- I will withdraw my objection at this
7 point.

8 THE COURT: All you have to do is call him back,
9 right? Save this man some time and let him ask
10 questions while he's on the stand once. Go ahead.

11 THE WITNESS: For the record, the grant was based
12 upon me developing it into -- it was a small business
13 and research grant. So you are required to attempt to
14 market the device.

15 BY MR. KOCH:

16 Q And since then you have been doing that
17 successfully, you are still in business almost -- close to
18 18 years?

19 A From 1989 to now, so --

20 Q '89?

21 A Yes.

22 Q At least 15 years?

23 A Yes.

24 Q And wouldn't it be fair to say that in order to
25 maintain a successful company to keep improving and

1 developing your product, that you have to do marketing?

2 A Yes.

3 Q Would it be fair to say, as indicated on your CV,
4 that part of these lectures and so forth and the teachings
5 that you do at some of these colleges, you do at no cost, is
6 that correct, or you donate back the money they pay?

7 A That is correct.

8 Q So you have the ability to expose your technology
9 or a similar technology to students, is that correct?

10 A They're exposed to it.

11 Q Wouldn't that be considered part of marketing as
12 well?

13 A Sure, in a way. I don't see it that way, but it
14 translates into it.

15 MR. KOCH: I want to mark this as an exhibit. I
16 guess we can mark it as Department of Health Exhibit 1.
17 (Whereupon, Respondent's Exhibit No. 1 was marked
18 for identification.)

19 MR. KOCH: I have a copy for the witness.

20 BY MR. KOCH:

21 Q Mr. Marcarian, this appears to be an advertisement
22 for your product from your company, correct?

23 A That is correct.

24 Q And it talks about, "What the EKG did for
25 cardiology, MyoVision does for chiropractic." Where did you

1 get that phrase?

2 A From a medical doctor in Pittsburgh, Pennsylvania.

3 Q Would that be Mr. Alex Ambrose?

4 A I believe he is the one that said that. I'm not

5 really certain, but I think so. I have heard it from

6 several people.

7 Q Have you seen this article before?

8 A Yes.

9 Q All right. Would you just read the name of the

10 title and who the authors are of that article, please, and

11 the date of publication?

12 A The Objective Documentation of Spine Pain is the

13 article, and the author is Alex Ambrose, M.D., and George

14 Gadavanishvilli, M.D.

15 Q Mr. Marcarian, under Conclusion, I just ask you to

16 read the last sentence into the record -- or the first

17 sentence.

18 A "Surface electromyography has been shown to be

19 useful in the evaluation of spine pain in much the same way

20 that EKGs have become indispensable for chest pain

21 evaluation."

22 Q Thank you very much. I take it you agree with

23 that statement?

24 A I'd have to read it again to be honest with you.

25 I was reading it slow and not listening to what I was

1 saying. "Surface electromyography has been shown to be
2 useful in the evaluation of spine pain in much the same way
3 that EKGs have become indispensable for chest pain
4 evaluation." That is his opinion, yes.

5 Q And by your advertisement then, have you adopted
6 that opinion?

7 A Yes. I have heard it from several sources. It
8 sounded good.

9 Q Now, would you recognize this as an advertisement
10 that would be circulated in the chiropractic community?

11 A This one? Yes.

12 Q And would it be fair to say that you have been
13 advertising here in Florida since 1996?

14 A Not specifically in Florida, no. These are
15 national ads.

16 Q These are national ads?

17 A Yes.

18 Q So that would include Florida probably?

19 A Yes.

20 Q And since 1996, you have sold to chiropractors 18
21 of your machines?

22 MR. GIMBEL: Your Honor, at this point I will give
23 him latitude if we can get confirmation that we can
24 then release this witness after he is done. I mean, he
25 can call him on direct, I understand, but I don't

1 remember doing any of this on direct and this is kind
2 of direct.

3 THE COURT: I don't either, but I don't know where
4 you are going with this.

5 MR. KOCH: I ask for some latitude to demonstrate
6 any potential bias that the witness may have and
7 interest that the witness may have.

8 THE COURT: It is his company, he sells the
9 machine, of course he has an interest in it. The role
10 of impeachment is to knock down the truth or veracity
11 of their statement.

12 Almost everyone in here has an interest in one
13 form or another, and it usually boils down to money if
14 you trace it all the way down. I don't think there is
15 any totally clean hands, and that is going to include
16 the medical community.

17 THE WITNESS: Can I answer his last question?

18 MR. GIMBEL: No.

19 THE COURT: I wouldn't go real far with this
20 unless you have something real earth-shattering. I
21 recognize the fact that he is interested in selling
22 these machines.

23 BY MR. KOCH:

24 Q Let me ask a new question, and probably because I
25 forgot the last one.

1 Is it fair to say that such advertisements and
2 your Web site, the direction of marketing is also as
3 practice-builders for chiropractors?

4 A For a separate test, yes. But there's two
5 different tests I went through in my presentation.

6 MR. KOCH: With the Court's permission?

7 (Whereupon, Respondent's Exhibit No. 2 was marked
8 for identification.)

9 BY MR. KOCH:

10 Q I would ask you if you could identify that
11 advertisement for us. (Tenders document.) That is from
12 your company, is it not?

13 A (Examining document.) No.

14 Q It is not?

15 A Not at all. No, this is from a company called
16 Precision Diagnostic Technology. My name is Precision
17 Biometrics.

18 Q So you do have competitors out there?

19 A They're out of business.

20 Q They're out of business?

21 A Yes, these ones are now. But they were in
22 business a while ago. No, that's not my company.

23 Q Now I believe you testified you provide a similar
24 service with your company, is that correct?

25 A I don't know what you are asking. A similar

1 service? This isn't my company. To make it very clear,
2 this is nothing related to me in any way at all.

3 Q I understand.

4 A Good.

5 Q But I believe from your earlier testimony, I
6 thought you mentioned something about that you do provide
7 assistance to help --

8 A Interpretation.

9 Q -- your patient education, but also to provide
10 information in those circumstances where a practitioner has
11 used your device and they've been denied payment, is that
12 correct?

13 A Oh, yes, I do do reviews as the insurance company
14 does. I respond to insurance denials. I will help with
15 denials.

16 MR. GIMBEL: Your Honor, I'm confused. Has this
17 been offered or marked?

18 THE COURT: It has been marked but I have not
19 accepted it into evidence.

20 MR. GIMBEL: I would obviously object.

21 THE COURT: And your objection?

22 MR. GIMBEL: Yes, I do object.

23 THE COURT: To DOH Exhibit No. 2?

24 MR. GIMBEL: Yes, I do object to the entry of
25 that.

1 THE COURT: Do you have any response, Mr. Koch?

2 MR. KOCH: No. He already stated it's not his
3 advertisement.

4 THE COURT: Are you withdrawing it?

5 MR. KOCH: Withdrawing it from evidence. However,
6 I do want to move DOH Exhibit No. 1 in.

7 THE COURT: That will be admitted.

8 (Whereupon, Respondent's Exhibit No. 1 was
9 received into evidence, and Exhibit No. 2 was withdrawn.)

10 BY MR. KOCH:

11 Q Now, you testified, I believe it was on direct
12 also, with regards to some communication you had with a
13 representative from State Farm?

14 A Yes.

15 Q Did you -- and that was in -- what jurisdiction
16 was that?

17 A It was in Iowa where I met him.

18 Q And that was for what purpose?

19 A To determine -- to determine what should be paid
20 for and not paid for, and what he felt I needed to know
21 about their viewpoint on surface EMG and --

22 Q Do you recall the name of the person?

23 A I can get it for you, I don't recall it. I have
24 it at home. It is in a binder at work or whatever. There
25 was a witness to it, too.

1 Q And do you know when that happened?

2 A Had to have been in -- it was cold, so I'm
3 guessing it was in either the end of November or it was at
4 the end of -- it was either November or in April, I believe,
5 one of those two times, I'm not sure exactly which. This
6 was in Iowa, so it was cold. I went there a couple of
7 different times, so I don't remember. I don't know exactly
8 what date I was there, no.

9 THE COURT: What year?

10 THE WITNESS: This year. It would have been 2003
11 if it were November, and it would be 2004 if it was
12 after that.

13 BY MR. KOCH:

14 Q Now, I believe you testified on direct and agreed
15 that the results of surface and dynamic SEMGs in and of
16 themselves do not indicate or contraindicate any particular
17 treatment, is that correct?

18 A I don't understand your question.

19 Q I'm just confirming your testimony.

20 A What you just said was surface EMG or dynamic.
21 I'm not sure -- do you mean static or dynamic?

22 Q Static or dynamic. I'm sorry if I misspoke and
23 confused you.

24 A Okay, I'm sorry. Maybe you can ask the question
25 again?

1 Q Okay. I believe on your prior testimony you have
2 confirmed that the results of both static and dynamic SEMG
3 neither indicate nor contraindicate any particular
4 treatment?

5 A Particular treatment, that's correct.

6 Q Mr. Marcarian, now, the patient identification has
7 been redacted from this document, so there is no identifying
8 information. So if you could just thumb through that and
9 identify that, what that document is.

10 A Yes. It is a static EMG on the first page and
11 then a dynamic EMG on page 3 and another dynamic EMG on
12 page -- I don't know what page it's. Let me count. On page
13 7 is another dynamic EMG.

14 THE COURT: Is this all on the same patient --

15 MR. KOCH: Yes, ma'am.

16 THE COURT: -- or are these different patients?

17 MR. KOCH: Yes.

18 THE COURT: Okay. Same patient.

19 BY MR. KOCH:

20 Q For the record, if you could put in the exam date.

21 A Okay. The exam date is November 26, 2003, on the
22 first one, and then the same date on the second one,
23 November 26, 2003. And then November 26, 2003, on the
24 third -- I'm sorry, November 26, 2003, on the third one,
25 also.

1 Q Now, would it be fair to say that just in terms of
2 format and much of the text, I'm not talking about
3 individual readings, but the general layout and format of
4 this report, this is what is produced by your machine, is
5 that correct?

6 A This is from my machine.

7 Q Now, looking at the second page -- and this is I
8 believe for the static?

9 A That is correct.

10 Q You provide some, I guess, educational information
11 in here describing what the test is and so forth?

12 A That is correct.

13 Q And there is some discussion and general language
14 about muscle tension, high, moderately high, normal, below
15 normal?

16 A That is correct.

17 Q And below normal, you include language -- four
18 possible alternatives as to why you could have a below
19 normal reading?

20 A That is correct.

21 Q And again, this would come out -- it doesn't
22 matter what the patient is, that language is part of the
23 report?

24 A Well, yes.

25 Q That is created by the MyoVision machine?

1 A No -- well, the language is not completely. The
2 individual levels are based on the test itself.

3 Q Yes, of course.

4 A But the actual rest of it is.

5 Q So that is consistent from report to report?

6 A The reasons you see one through four on this
7 report, yes. The first two paragraphs are. The rest is
8 not.

9 Q Now, under the dynamic reports, I guess you
10 have --

11 MR. GIMBEL: What page?

12 BY MR. KOCH:

13 Q Identified at the bottom as page 2 of the exam,
14 November 26, 2003, at 10:16 in the morning.

15 A Okay.

16 MR. GIMBEL: I'm sorry, I apologize for
17 interrupting. You're on the fourth page?

18 MR. KOCH: Yes, it's the fourth page overall.

19 BY MR. KOCH:

20 Q Again, directing your attention to most of the
21 language on that page, primarily your educational
22 information that appears in each report?

23 A That is correct.

24 Q Including the bottom sentence of the -- on that
25 page?

1 A Which one are you talking about? "Is important to
2 note"?

3 Q Yes, "It is important to note." Would you read
4 that into the record, please?

5 A Sure. "It is important to note that the results
6 of this test should be correlated with other exams and
7 should not be used on its own to determine disability."

8 Q So it would be fair to say, then, as between
9 dynamic and the static, this is the general format of the
10 reports that get printed up from your program?

11 A Correct.

12 MR. KOCH: Judge, I would like to move that
13 MyoVision static graphic as Department of Health
14 Exhibit 4.

15 THE COURT: Any objection?

16 MR. GIMBEL: No.

17 MS. TUNNICLIFF: No.

18 MR. GIMBEL: Is that 2?

19 THE COURT: He has it marked 3. That was the
20 withdrawn one.

21 MR. GIMBEL: So this would be 3?

22 THE COURT: Uh-huh.

23 MR. KOCH: 3.

24 (Whereupon, Respondent's Exhibit No. 3 was marked
25 for identification and received into evidence.)

1 BY MR. KOCH:

2 Q Now, Mr. Marcarian, I think you have described
3 through testimony today, you have created between the static
4 and the dynamic SEMG device, a device that measures pain,
5 muscle tension?

6 A I didn't hear the first thing you said.

7 Q That your devices measure muscle tension?

8 A That is correct.

9 Q And you have equated that to like taking an
10 objective measurement like a thermometer or blood cuff, or
11 perhaps taking somebody's weight?

12 A Yes -- I mean, no, I'm not taking somebody's
13 weight. But I made the analogy.

14 Q I would just like to finally ask then, the last
15 time you went to your doctor, did your doctor charge you
16 \$250 for taking your blood pressure and another \$250 for
17 taking your temperature?

18 MR. GIMBEL: Your Honor, objection. I find that
19 argumentative. I'm not sure it's even relevant.

20 THE COURT: Sustained.

21 MR. KOCH: Withdraw the question.

22 That's all I have.

23 THE COURT: Anything further?

24 MR. GIMBEL: Just one small area, Your Honor.

25 /////

1 REDIRECT EXAMINATION

2 BY MR. GIMBEL:

3 Q Since you still have that CPT slide out, they talk
4 about the motion analysis performed in a dedicated motion
5 analysis laboratory and it described what that might be.
6 Read the description for Code 96000.

7 A "96000, comprehensive, computer-based motion
8 analysis by videotaping and 3-D kinematics."

9 Q That is what they're talking about with respect to
10 the motion analysis laboratory, isn't it?

11 A That is correct.

12 MR. GIMBEL: Thank you. Nothing further.

13 THE COURT: Anything? May this witness be
14 excused? Nobody needs him to stay? You're free to go.
15 Thank you, sir.

16 (Witness excused.)

17 THE COURT: Let's take a lunch break. Be back at
18 1:35.

19 (Lunch recess.)

20 (Proceedings continued in Volume II.)

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1 CERTIFICATE

2 STATE OF FLORIDA)

3 COUNTY OF LEON)

4 I, CLARA C. ROTRUCK, Court Reporter at Tallahassee,
5 Florida, do hereby certify as follows:

6 THAT I correctly reported in shorthand the
7 foregoing proceedings at the time and place stated in the
8 caption hereof;

9 THAT I later reduced the shorthand notes to
10 typewriting, or under my supervision, and that the foregoing
11 pages 4 through 103 represent a true, correct, and complete
12 transcript of said proceedings;

13 And I further certify that I am not of kin or
14 counsel to the parties in the case; am not in the regular
15 employ of counsel for any of said parties; nor am I in
16 anywise interested in the result of said case.

17 Dated this 18th day of August, 2004.

18

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22

23

CLARA C. ROTRUCK

24

Court Reporter and Notary Public

25

State of Florida at Large