

UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE PATENT TRIAL AND APPEAL BOARD

-----  
MEDTRONIC, INC.,  
Petitioner,  
-vs-  
NUVASIVE, INC.,  
Patent Owner.

Patent Number 8,361,156 B2  
Issue Date: January 29, 2013  
Case IPR2013-00506  
-----

MEDTRONIC, INC.,  
Petitioner,  
-vs-  
NUVASIVE, INC.,  
Patent Owner.

Patent Number 8,187,334 B2  
Issue Date: May 29, 2012  
Case IPR2013-00507  
-----

MEDTRONIC, INC.,  
Petitioner,  
-vs-  
NUVASIVE, INC.,  
Patent Owner.

Patent Number 8,187,334 B2  
Issue Date: May 29, 2012  
Case IPR2013-00508  
-----

Examination Under Oath of HANSEN A. YUAN, M.D.,  
held at 211 West Jefferson Street, Suite 21,  
Syracuse, New York, on August 22, 2014, before  
MARITA PETRERA, Registered Professional Reporter,  
and Notary Public in and for the State of New York.

Henderson Legal Services, Inc.

1 probably over 60 percent of total fusions, 60 to  
2 70 percent.

3 Q. So 60 percent to 70 percent of the  
4 60 percent of your total cases?

5 A. Right.

6 MR. AMON: Dr. Yuan, please let  
7 Mr. Schwartz finish his question.

8 THE WITNESS: Sorry.

9 Q. Okay. Sir, and then of those lumbar  
10 cases, could you break out anterior procedures  
11 versus posterior procedures?

12 A. There were period of time that we did  
13 anterior surgery and the anterior surgery that we did  
14 are actually relatively few. We did a  
15 laparoscopically, we did open, so the majority of the  
16 lumbar cases, I would say over 80, 85 percent, either  
17 going to be posterior, posterolateral. And these all  
18 happen over a period, so in the early, early days, we  
19 would have done a lot more anterior -- posterior  
20 because we didn't have any other, and then for a  
21 short period of time we went ahead and did a lot of  
22 anterior, and then towards the end with the

1 improvement of the modern interbody spacers, cages,  
2 we shifted again to posterior and posterolateral and  
3 then of course the lateral approaches.

4 Q. When did you first start doing lateral  
5 approaches, sir?

6 MR. AMON: Objection; vague.

7 A. Lateral approaches, for what condition?

8 Q. Well, any lateral approach using an  
9 intervertebral implant for any condition.

10 A. I did lateral approaches as early as 1980s.

11 Q. 19?

12 A. 80s.

13 Q. 1980s.

14 A. And that included using cages, but those  
15 are mostly for fractures, and most of those cases are  
16 in the thoracic, and in the thoracolumbar junction.

17 Q. Could you explain what the thoracal lumbar  
18 junction is?

19 A. Between the thoracic which is the ones with  
20 the ribs and fairly stable and so between the  
21 thoracic transiting to the lumbar which is more  
22 flexible, so most of the injuries that's going to

1 occur most commonly is between the thoracic and the  
2 lumbar. So it's pretty much like T11, T12, L1, L2.

3 Q. Okay.

4 A. And maybe L3.

5 Q. Did you do any vertebral body  
6 replacements?

7 A. Yes.

8 Q. Did you do any of the vertebral body  
9 replacements laterally?

10 A. Oh, yes.

11 Q. The way you said that, "oh, yes," does  
12 that suggest that that was routine for you to do  
13 vertebral body replacements laterally?

14 A. It isn't routine, because most of the cases  
15 for a period of time that we did vertebral  
16 replacement, for example, like in the TB, infections,  
17 and certainly in certain fractures, but most of the  
18 fractures we still treat posteriorly.

19 Q. You did do some vertebral body  
20 replacements laterally?

21 A. Yes.

22 Q. Did you do any anteriorly, from an

1 anterior approach?

2 A. Vertebral body replacement, is that what  
3 you're referring to?

4 Q. Um-hmm.

5 A. I'm trying to, I'm trying to think the  
6 term. When you make an exposure, if you are going to  
7 go to replace a whole vertebral body, you can say  
8 that you're using a lateral incision because in those  
9 days not so-called minimally invasive, we use a long  
10 incision. So when you use a long incision, you are  
11 literally able to approach the spine direct  
12 anteriorly, so this is why to be specific to answer  
13 you, I, when I say we are using a lateral approach,  
14 we are using a lateral incision because it is an open  
15 procedure and we could replace a vertebral body  
16 depending on the anatomy of where the major blood  
17 vessels are, either putting the implant lateral or  
18 putting an implant in anteriorly.

19 Q. Okay. What about an oblique approach,  
20 sir, did you do any vertebral body replacements  
21 through what's referred to as an oblique approach?

22 A. You tell me what you mean by an oblique.

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.