

ATEC Leadership, Sales Team, Some Products Provide It Edge Over NUVA

Companies: ATEC, GMED, JNJ, MDT, NUVA, SYK, ZBH

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Research Question:

Does either NuVasive or Alphatec have a competitive edge in the spine surgery market?

Summary of Findings

- [Alphatec Holdings Inc.'s](#) (ATEC) well-known, highly regarded and extremely effective CEO, [Patrick Miles](#), provides a formidable competitive advantage for the company in the relationship-dependent market for spine surgery devices.
- Alphatec also possesses strong, well-connected middle-management professionals and a highly regarded and experienced team of sales professionals. Many are former employees of [NuVasive Inc.](#) (NUVA), adding to Alphatec's competitive strength.
- Alphatec's products are considered innovative by some, especially its [prone transpsoas technique](#) (PTP). This a spinal fusion procedure in which the patient is positioned prone, while the disc space is accessed laterally through the psoas muscle. Alphatec's acquisition of [EOS Imaging](#) is also considered a competitive strength and expected to open doors for some of the company's other spine devices. The company's other products are considered equal to the competition and good enough to gain share.
- The primary challenge that Alphatec faces is its small size and limited product portfolio, which prevents it from securing large contracts from hospitals and global purchasing organizations. These contracts are primarily controlled by six companies that account for an 80% market share: [Medtronic PLC](#) (MDT), [DePuy Synthes](#) (Johnson & Johnson [JNJ]), [Stryker Corp.](#) (SYK), NuVasive Inc., [Globus Medical Inc.](#) (GMED), and [Zimmer Biomet Holdings Inc.](#) (ZBH). Winning business at this level requires significant price concessions and product bundling to enhance the offering.
- NuVasive is one of the top spine surgery device companies, with a strong product portfolio. However, a product [recall](#) and [lingering problems](#) with its [MAGEC](#) device system have tarnished the company's stature. The exodus of middle management and high-performing sales professionals has caused some surgeons to switch spine device companies, often choosing Alphatec.
- Sources expect both companies to grow. However, most thought Alphatec's growth guidance of 64% year over year was too aggressive, especially in light of the continued negative influence of COVID-19 on surgical procedures.
- Trends in spine surgery include an increased use of outpatient procedures at ambulatory surgical centers (ASCs) and the 3D printing of spine devices—both of which favor smaller, nimbler companies like Alphatec.

Silo Summaries

1) Spine Surgeons and their Medical Teams

The opinions of spine surgeons and their teams regarding the competitive edge of NuVasive and Alphatec were mixed, trending toward Alphatec as the leader. Four of the six sources praised Alphatec. One cited its corporate leadership and sales team, including CEO Pat Miles, as "top-flight." He said the company is positive and energetic. Another said Alphatec has the mind share of surgeons, as it is exciting, creative, and energetic with a drive to prove itself. The third source said he finds Alphatec's PTP procedure interesting. The fourth positive source praised its EOS imaging system and suggested that it would open doors for the company's other products. Three sources praised NuVasive. However, they noted that NuVasive has grown big and detached, becoming difficult to work with. NuVasive's weaknesses include the departure of many midlevel managers—which has changed the corporate culture and soured surgeons. One source said NuVasive has lost its energy and excitement, replacing them with complacency and arrogance.

2) Spine Surgery Device Sales Channel

Two spine surgery device sales professionals both see Alphatec rising and NuVasive declining. The competitive rep said Alphatec's purchase of EOS Imaging portrays it as an industry leader and will generate more interest from the key opinion leaders in spine surgery. Also, Alphatec's targeting and hiring of NuVasive sales professionals is gaining market share.

The Alphatec distributor said the company has a positive and innovative corporate culture due in part to its CEO, Pat Miles, and the many former NuVasive employees who have followed him to the company. Alphatec is also agile and responsive to surgeons' needs. Its primary weakness is its small size, which precludes it from successfully competing for large hospital and GPO contracts.

3) Industry Specialists

Both specialists perceive that Alphatec has a competitive edge over NuVasive. The former surgeon said Alphatec's CEO is well-respected and is expected to generate momentum for the company. NuVasive is overly bureaucratic and has lost its caring connection to surgeons. The marketing director said both companies are great and noted that Alphatec CEO Pat Miles previously developed NuVasive into a Goliath in the spine industry. Miles is now revolutionizing Alphatec's products and marketing. He is attracting the best talent in both medicine and marketing, making Alphatec the David of the two companies.

Alphatec and NuVasive

	ATEC Competitive Advantage	NUVA Competitive Advantage
Spine surgeons and their medical teams	→	→
Spine surgery device sales channel	↑	↓
Industry specialists	↑	↓

Background

Blueshift Research reported positively on [Alphatec on Jan. 7, 2021](#), and [NuVasive on Oct. 6, 2010](#). NuVasive was found to be a formidable, trailblazing company leading the way in the use of minimally invasive spine surgeries. Blueshift found that Alphatec's product development program and changes to its sales channel elicited mixed opinions regarding its ability to sustain double-digit growth. However, sentiment regarding CEO Patrick Miles was all positive, as sources expected him to lead Alphatec to success.

Blueshift's preliminary research for this report found NuVasive and Alphatec in relative litigious calm compared to the past four years, during which the companies engaged in several legal battles. The cases centered on possible inappropriate actions by Miles' jumping ship while CEO of NuVasive to assume the same role at Alphatec, along with numerous potential patent infringements by both companies. Despite the legal clashes, each company has continued to innovate and prosper in the highly competitive spine surgery device market. As two of the top companies in the industry, they are both dedicated to researching and developing devices and procedures to improve the outcomes of spine surgery. What is unclear is whether one company has a competitive edge and which has more mind share among spine surgeons and their medical teams.

NuVasive, established in 1997, is a leading medical device company focused on developing minimally disruptive surgical products and procedures for the spine. It introduced a new approach to minimally invasive surgery called maximum access surgery (MAS). The flagship procedure is XLIF (extreme lateral interbody fusion), a minimally disruptive procedure that allows surgeons to have direct access to the intervertebral space from the side of the body, as opposed to the front or back. NuVasive claims a market share of about 16%. Recent highlights include:

- Sept. 30: The first commercial cases using NuVasive's Pulse Platform for spine surgery were [completed](#) in Ohio and Texas.
- Sept. 9: NuVasive announced new executive leadership. Massimo Calafiore was appointed chief commercial officer and Ryan Donahoe chief technology officer, both reporting directly to CEO J. Christopher Barry.
- Sept. 9: The study data from NuVasive's Simplify Cervical Disc one-level FDA investigational device exemption (IDE) was published in the International Journal of Spine Surgery. Peer-reviewed data results from the multicenter IDE study reiterate that the Simplify Cervical Disc has a greater success rate than anterior cervical discectomy and fusion.
- July 30: The Pulse Platform for spine surgery received FDA 510(k) approval. Pulse is an integrated platform made to increase safety and efficiency in spine surgery, according to a July 30 news release. Clinical evidence shows that the system has enabled surgeons to reduce operating room time by up to an hour, save nearly \$5,000 per patient in hospital costs, and reduce the time under anesthesia and hospital stays. It also helps surgeons scale back radiation exposure and improves surgical navigation.

Alphatec, founded in 2005, operates as a holding company for its subsidiaries: Alphatec Spine Inc., EOS imaging, SafeOp Surgical Inc. and Alphatec International LLC. The company and its subsidiaries design, develop, manufacture, and market products for the surgical treatment of spine disorders. The company aims to revolutionize the approach to spine surgery and has about a 1% share in the spine surgery device market. Recent highlights include:

Alphatec and NuVasive

- Sept. 29: Alphatec [launches](#) a new spinal fixation system, the InVictus OsseoScrew. The device is designed to be an alternative to the conventional use of cemented fenestrated screws in patients with compromised bone and helps restore the integrity of the spinal column.
- Sept. 22: Alphatec received FDA [approval](#) for different devices and procedures: the IdentiTi Porous Ti Interbody System, Transcend PEEK Interbody System, IdentiTi NanoTec Interbody System, and Transcend NanoTec Interbody System.
- Aug. 10: Alphatec received FDA [approval](#) for its PSX Interbody System.
- April 9: Alphatec received regulatory [approval](#) for its \$116.9 million acquisition of EOS Imaging.

NuVasive's Q2 performance beat the Street's expectations for both earnings per share and revenue. Sales increased 44.8% year over year to \$294.8 million versus expectations of \$285.1 million. Earnings of 60 cents per share beat analyst forecasts of 43 cents. The sales increase was attributed to the recovery from the COVID-19 pandemic across all procedural segments and continued strong international growth. For the 2021 fiscal year, NuVasive expects net sales of around \$1.19 billion to \$1.21 billion.

Alphatec's Q2 produced mixed results, beating revenue but missing EPS expectations. Revenue was up 110% to \$62.1 million versus expectations of \$44.8 million. The company lost 39 cents per share versus analyst forecasts for a loss of 2 cents. Full year 2021 guidance was for revenue of about \$238 million. "We are accelerating revenue through sound execution of our growth priorities," CEO Patrick Miles said. "But this is just the first inning; we intend to become the dominant force in the industry by significantly improving the clinical experience in spine."

Current Research

Blueshift Research assessed whether either NuVasive or Alphatec has a competitive edge in the spine surgery market. We employed our pattern mining approach to establish four independent silos, comprising 10 primary sources (including six repeat sources) and four secondary sources focused on spine surgery procedures and devices. Interviews were conducted Oct. 18–Nov. 1.

- 1) Spine surgeons and their medical teams (6)
- 2) Spine surgery device sales channel (2)
- 3) Industry specialists (2)
- 4) Secondary sources (4)

Next Steps

Blueshift Research will continue to research the market for spine surgery devices and procedures to determine which companies are gaining and losing. We will focus on Alphatec's effort to climb above 1% market share and become a more dominant player in the market. We will also research NuVasive and its effort to regain the stature it has lost due to the recent problems with its from products, management, and sales team.

Alphatec and NuVasive

Silos

1) Spine Surgeons and Their Medical Teams

The opinions of spine surgeons and their medical teams regarding the competitive edge of NuVasive and Alphatec were mixed, trending toward Alphatec as the leader. Four of the six sources praised Alphatec. One cited its corporate leadership and sales team, including CEO Pat Miles, as “top-flight.” He said the company is positive and energetic. Another said Alphatec has the mind share of surgeons, as it is exciting, creative, and energetic with a drive to prove itself. The third source said he finds Alphatec’s PTP procedure interesting, and he has been told they have a robust and innovative pipeline but has yet to get any specific details. The fourth positive source was not knowledgeable about Alphatec’s spine device products but praised its EOS imaging system and suggested that it would open doors for the company’s other products. The two other sources did not know Alphatec. Alphatec’s primary weaknesses include the company’s small size, which will hinder its ability to compete, and its current lack of true innovation. NuVasive was praised by three sources. One said it has excellent products with strong sales and customer support. Another said NuVasive’s MAGEC and [Precice](#) products are excellent and its sales professionals readily available to support the surgeons. The third is a fan of [Simplify Medical Inc.](#), a recent NuVasive acquisition. However, he noted that NuVasive has grown big and detached, becoming difficult to work with. NuVasive’s weaknesses include the departure of many midlevel managers—which has changed the corporate culture and soured surgeons, who looked to them and the company for their needs. One source said NuVasive has lost its energy and excitement, replacing them with complacency and arrogance. The market for spine devices is dominated by Medtronic, DePuy, Globus, Stryker, NuVasive, and Zimmer Biomet, which together control 80% of the market. The remaining business is divided over 20 companies—including Alphatec—that have the obvious challenge of getting noticed. Sources expect both companies to grow. However, Alphatec’s growth guidance seems too aggressive.

Key Silo Findings

Background

- 1 source is an academic spine surgeon with over 300 published articles.
- 1 is a director of spine neurosurgery at a West Coast hospital.
- 1 is a spine surgeon, researcher and investigator on multiple clinical trials.
- 3 are physician assistants at pediatric and spine neurosurgery practices.

Alphatec and NuVasive Strengths and Weaknesses

- 4 sources shared positive comments on Alphatec.
 - o 1 said Alphatec is rising with top-flight leadership, including CEO Pat Miles, and a strong sales team. Its corporate culture is positive and energetic.
 - o 1 said Alphatec has the mind share of surgeons, as it is exciting, creative, and energetic, with a drive to prove itself.
 - o 1 called Alphatec’s PTP procedure interesting; he has been told the company has a robust and innovative pipeline but has yet to get any specifics.
 - o 1 praised Alphatec’s EOS imaging system and suggested that it would open doors for the company’s other products.
- Alphatec’s primary weaknesses include its small size, limiting its competitiveness, and a product portfolio that is not considered truly innovative.
- 3 sources expressed positive comments on NuVasive.
 - o 1 said NuVasive’s acquisitions of Simplify may allow it to achieve its growth goals. However, he said he finds the company hard to deal with.
 - o 1 said NuVasive’s MAGEC and Precice products are the best-known and respected products for pediatric spine surgeries, and the company’s representatives are responsive and available to support the surgeons.
 - o 1 said NuVasive’s products and support are excellent; the source also has a strong relationship with the company’s sales representative.
- NuVasive’s primary weaknesses include the exodus of many talented and well-connected midlevel managers and sales professionals. The company also seems to have lost energy and lacks excitement and now exhibits complacency and arrogance.

Growth Potential for Alphatec and NuVasive

- Sources think both companies will continue to grow. However, Alphatec’s growth goals are too aggressive.

Alphatec and NuVasive

Competitive Landscape

- Medtronic, DePuy, Globus, Stryker, NuVasive, and Zimmer Biomet control 80% of the market, with no significant shifts in share expected. Hospitals are consolidating their purchases and limiting the number of vendors, a move that does not favor smaller companies like Alphatec. The future of spine surgery is in 3D printer devices.

1) Professor of surgery and spinal specialist who has written more than 300 peer-reviewed articles; repeat source

This pediatric and adolescent spine surgeon, responsible for writing over 300 publications and creating many patented devices, views NuVasive as declining and Alphatec as rising. In the past few years, NuVasive has cut some key executives and about 20 midlevel managers, moves that have soured the support of spine surgeons. The company's leadership ranks today are not well-known with spine surgeons. Conversely, Alphatec's Pat Miles is an industry-known entity who is a superior motivator and executive, assembling a top-flight leadership team and sales organization. Alphatec will continue to be challenged, as it is outside of the top six competitors, who control over 80% of the surgical spine business. Consequently, it is competing with about 20 other companies, each of which control less than 1% market share. This makes it hard to gain approval and stocking in hospitals and GPOs—most purchasing departments limit stocking to three company lines.

Jan. 7, Alphatec interview summary: This surgeon does not see any way or path for Alphatec to grow by double digits in 2021. The company's CEO is well-respected; and if anyone could grow Alphatec, he would be the one. He has been able to attract great talent, nothing innovative or compelling in the company's product line could get him much more than 1% to 2% growth. Globus is the most innovative company in this space.

Background

- "I do not use Alphatec or NuVasive products. We primarily use Globus and DePuy products in our practice."

Alphatec and NuVasive Strengths and Weaknesses

- "Regarding Alphatec, Pat Miles is an industry-known entity who is known by the sales channel and by spine surgeons. When he took over at NuVasive, he recruited key people with strong records of success in surgical spine to be in positions of leadership throughout the company. When he left NuVasive for Alphatec, he again recruited key people, primarily from NuVasive, to lead many of the key positions for Alphatec. He is really a superior motivator and keeps the organization very positive and energetic."
- "The recruited leadership team has strong histories of success in the spinal field. One could ask, 'Can these key players do it again in a different environment—that is, in a different company?' Doesn't always work that way. Another question is what if the board and CEO Miles butt heads and he is ousted?"
- "Pat Miles continues to poach from his prior company. He picks off highly successful NuVasive sales reps, but they almost always have one-year noncompete agreements with their prior company, and they can't be actively selling to surgeons. For the 12 months while the noncompete is in effect, they bring the newly hired sales reps inside and use them for training and other functions—everything but selling to surgeons. When the 12 months expires, these new hires go back to the field and resume their selling."

I see that NuVasive is dropping in appeal and that Alphatec is growing. NuVasive has made some critical errors over the past few years.

Professor of surgery and spinal specialist

Growth Potential for Alphatec and NuVasive

- "NuVasive grew to about the third-highest share in the spine market. They were expected to be acquired but essentially got too big to be bought. Rumors were that next they were going to buy Zimmer's spine division, but this did not materialize. They continue to offer strong products, but they have shed many of the executives that made them strong and that spine surgeons were confident with and trusted. The spine surgery space is different than other device areas. Spine surgeons have real surgical loyalty and get to know management of the companies they support. Every time a company changes executive leadership, procedures and policies begin to change, and spine surgeons make product decisions often based upon where these key company people go—and consequently often stop using the devices of the company these leaders have left."

Alphatec and NuVasive

- “I see that NuVasive is dropping in appeal and that Alphatec is growing. NuVasive has made some critical errors over the past few years. Today, NuVasive’s executive ranks are not well-known to the spine surgeon community, and it hurts their reputation, trust, and degrades surgeon loyalty. Several years ago, NuVasive was making a strong play for spinal pediatrics. NuVasive had [Ross Silva](#) in charge of developing innovative pediatric products, but then he was let go in 2019. It really turned off the pediatric spine surgeons, as he had gained their trust and was a real partner. Contributing to NuVasive’s decline, they cut about 20 of their midlevel managers to improve their P&L to make them a better acquisition candidate. This loss of key company personnel disrupted the loyalty of many spine surgeons, encouraging the surgeons look elsewhere to consider other products and be receptive to the companies where these midlevels from NuVasive landed.”

Competitive Landscape

- “A key challenge for Alphatec is that they are so small. There are six major players—Medtronic, DePuy, Globus, Stryker, NuVasive, and Zimmer Biomet. Twenty other companies, none with more than a 1% share, compete for the balance of the market. It is exceedingly difficult for those companies to get approved and stocked into hospitals. Purchasing typically accepts up to three companies based upon pricing and acceptance by the VAT (value analysis team) committees. Small companies without portfolio leverage are at an extreme disadvantage.”

2) Director of spine neurosurgery at a West Coast hospital

This spinal surgeon is optimistic about Alphatec if it delivers on its promise of innovative products, but time will tell. NuVasive has lost its energy and excitement and fallen into a hole of complacency and arrogance. He sees the mark of a high-quality company as one that invests in R&D and engages with surgeons—which Alphatec is currently doing. Larger companies have similar products, but they are consistently reliable. It is unclear whether Alphatec can grow as aggressively as stated short term. If Alphatec delivers as promised, it will be in a strong growth position, particularly when access for face-to-face interaction with surgeons opens up further.

Background

- Source is a double board-certified orthopedic surgeon and neurosurgeon working as a director of spine neurosurgery at a prestigious hospital and is also CEO of a specialized neurosurgery center. He has experience with most of the spine product manufacturers, including NuVasive and Alphatec, but is not currently using either brand in his practice.

Alphatec and NuVasive Strengths and Weaknesses

- “I can tell you, with a good understanding of both companies, there is a clear pattern in behavior. When the company is small, they are hungry. They will invest deeply in R&D and engage sincerely with surgeons. As they get bigger, there is less interest and complacency, then arrogance sets in. This happens with many companies and has clearly happened with NuVasive.”
- “Many of the original individuals with NuVasive left, I’m sure for a variety of reasons, but that departure came with a culture change. From a surgeon’s perspective, the excitement and hope for better products evaporated. NuVasive fell into a hole. A lot of surgeons sought out better options.”
- “Alphatec has had a relatively recent resurgence. A lot of the dynamic people from NuVasive’s early days are there. The company is exciting. There is more energy, creativity, and drive to prove themselves.”
- “If you ask me which company has better products, it is the company that invests in research and development and engages surgeons. Alphatec has mind share with surgeons: it has the basic portfolio but also promises innovation and evolution. They are exciting. But they have nothing really game-changing right now. The real test will be if they can actually deliver.”
- “Honestly, I do not know if Alphatec can deliver on their promises. We will see.”
- “Alphatec growth will really be dependent on how aggressive the sales representatives are with educating surgeons. The challenge is that surgeons are not very interested in meeting with reps right now. Since COVID, they want to do their work, stay safe, and go home.”
- “I would consider Alphatec as a midsize company. They are staying alive and showing glimmers of excitement. Time will tell if they can deliver once we emerge from the pandemic.”

Alphatec has had a relatively recent resurgence. A lot of the dynamic people from NuVasive’s early days are there. The company is exciting. There is more energy, creativity, and drive to prove themselves.

Director of spine surgery at a West Coast hospital

Alphatec and NuVasive

Growth Potential for Alphatec and NuVasive

- “It remains to be seen if Alphatec can grow that aggressively short term. If they deliver as promised, it is certainly possible to grow considerably.”

Competitive Landscape

- “COVID hurt all the companies. It is not even so much the need for a hospital contract but the need to educate the surgeons about the benefits and advantages of a particular product. Reps need to get in front of the surgeons directly to demonstrate why they are different. But there have been fewer meetings and less conference attendance. Virtual learning is not the same.”
- “The larger companies tend to dominate regionally. Medtronic, J&J, Globis, DePuy ... they all have very similar products. Bigger companies do not take risks, and they do not excite. But they do deliver products that work as expected. Smaller companies have to struggle to survive. Many have been purchased or gone out of business in the past five to six years.”
- “Some companies have very excited engineers but do not collaborate with surgeons adequately. Those projects often end in an expensive failure. There has to be a healthy collaboration with surgeons when developing novel tools.”
- “I value what other surgeons tell me more than a representative or an advertisement.”

3) Spinal surgeon in the Mountain West; repeat source

This surgeon uses Alphatec products occasionally and has heard of the robust new product pipeline it has been promising but has never been provided details. Alphatec has an interesting prone lateral system, but he has not been trained on it. This surgeon thinks that NuVasive has grown big and detached, becoming difficult to work with. The purchase of [Simplify](#) was disappointing because now he has to deal with NuVasive for that product. Acquisitions like Simplify however, may allow NuVasive to achieve its growth goals. Alphatec’s expectation of 64% growth seems unachievable unless it truly comes out with fantastic new products. Hospitals are reducing their vendor list and do not care about things like procedure speed. They care about cost. Medtronic remains dominant in his region, although he considers Globus a leader in orthopedic spine.

Jan. 7, Alphatec interview summary: This spine surgeon has used Alphatec a few times and will be using more of its products in the future. He was largely unaware of the company two years ago but believes Alphatec has done a good job improving its image by moving away from the physician-owned distributor network. This surgeon has a strong and friendly relationship with his Alphatec sales rep and believes the company can achieve its product innovation and sales goals as long as it is sufficiently funded. He is not intimately knowledgeable about Alphatec’s plan for introducing new products but assumes it will include new technologies as well as upgrades of older devices. The company’s most significant competitors include the usual suspects—NuVasive, Stryker, DePuy, primarily because of their size and reach. Surgeries have been significantly slowed by the COVID-19 pandemic. The current “second wave” has significantly hurt spinal surgeries, which are typically weighted toward December, when patients have achieved their annual deductible. Alphatec is fairly well-established with hospitals and GPOs in the Mountain West region, and this surgeon sees no significant roadblocks for the company.

Background

- This surgeon has used Alphatec occasionally over the past few years and less so NuVasive, although he is a big fan of NuVasive’s recently acquired Simplify artificial cervical disc.

Alphatec and NuVasive Strengths and Weaknesses

- “ATEC has a prone lateral system that seems interesting. The nice feature is that the surgeon does not have to reposition the patient. It is the same standard procedure from a different angle. But I have not been trained, and a surgeon needs to get familiar with doing the procedure in a new way. I have not been interested enough yet to travel for training.”
- “ATEC keeps talking about novel new products, but they are never specific. The rep tells me they have all these new products in the pipeline but never provides any detail. I will give them the benefit of the doubt, but I will not believe until I see it.”
- “I do not know a lot about NuVasive these days, other than the fact that they bought Simplify. I really like the Simplify artificial cervical disc and am annoyed that I have to deal with NuVasive now instead.”

ATEC keeps talking about novel new products, but they are never specific.

Spinal surgeon in the Mountain West

Alphatec and NuVasive

- “I did not love NuVasive to begin with, but now it seems they have gotten big and developed an attitude like a DePuy or Stryker. They are not easy to deal with. I do not even know who my NuVasive representative is.”

Growth Potential for Alphatec and NuVasive

- “ATEC cannot achieve 64% growth in this region and probably not nationally, either. As hospitals reduce their vendors, ATEC is simply not large enough to be in the game. Unless they come out with something entirely unique and fantastic, I do not know where that growth would come from.”
- “NuVasive might be able to grow at 14% with acquisitions like Simplify.”

Competitive Landscape

- “Medtronic is still killing it in this region.”
- “Despite its size, Globus is still pretty responsive to surgeons. I would say they lead in orthopedic spine.”
- “Hospitals do not care about new technologies, for the most part. Benefits like speed of procedure is very surgeon-dependent. Some surgeons will never increase their procedure speed regardless of the available tools. Hospitals do not care if a new procedure is easier—they care about cost. And many companies introducing new products want to upcharge. They only purchase robots for the marketing power.”
- “Many hospitals are trying to whittle down their vendor list.”

4) Physician’s assistant with pediatric spine surgery expertise

This source is focused on pediatric spine procedures at a large facility that has been using MAGEC and Precice for a decade. Several of the surgeons were early champions of MAGEC, which allows children to avoid multiple surgeries throughout development. The EOS low-radiation imaging system from Alphatec is used extensively to dramatically reduce radiation exposure for children who require frequent imaging. She expects this is a unique, door-opening technology for Alphatec. This source has no direct experience with Alphatec spine products, which are currently focused on adult procedures. The surgeons at her facility are allowed to use their preferred products, but from her perspective, the brands vary little. It appears the relationship with the representative is often the deciding factor.

Background

- This source is a physician’s assistant with expertise in pediatric spine surgery. The facility has used NuVasive’s MAGEC and Precice for about 10 years. These are the best-known and respected products for pediatric spine surgeries and are used by all of the providers at her large facility. Several physicians were early adopters and champions of bringing MAGEC in-house. This source has no direct experience with ATEC spine products, which are focused on adult procedures, but is familiar with EOS. The low-radiation imaging system has been used for about seven years and was subsequently brought into an affiliated facility based on recommendations.

Alphatec and NuVasive Strengths and Weaknesses

- “Having focused on pediatric spine procedures, I am not familiar with the ATEC spine products specifically, but I am very familiar with EOS. This low-radiation imaging technology (about 25% of the radiation exposure of a standard X-ray) is a huge benefit, as the children are imaged very frequently. The resolution is slightly lower, but if necessary the surgeon will order a standard X-ray initially, then switch to EOS to track progress. Once the parents hear about the low-radiation option, they also demand it. EOS is very well-respected. ATEC’s acquisition is likely to be very beneficial to them to at least provide a foot in the door with a very unique and advantageous technology.”
- “The NuVasive MAGEC ... technology allows the child to avoid surgery every six months while they are developing. The representatives are reliably available for surgeries and rod-lengthening procedures. I have heard no complaints about the company.”

Growth Potential for Alphatec and NuVasive

- “Although I cannot make an informed decision, 64% growth seems drastic. Perhaps with key acquisitions, this growth rate could be realized.”

Competitive Landscape

- “At our facility, surgeons are allowed to use their preferred products. Most use Zimmer Biomet for fusion procedures. But the available products are very similar. It appears to me that the surgeons select the product based on their relationship with the representative.”
- “Stryker is more commonly used for lower extremities at our facility.”

5) Physician's assistant at a medium-size neurosurgery practice in the Southeast

This experienced PA has worked in his current position for several years with a surgeon who specializes in minimally invasive spine procedures. They tend to use devices from only three companies. The more specialized they are, the fewer devices that are used, which improves consistency and safety. They only use Medtronic, NuVasive, and Globus, gravitating to them due to the support from the sales reps and other customer service staff. Being comfortable with the devices and with how well they are trained, as well as knowing how the devices work in different clinical situations, are the most important aspects in deciding which company to go with.

Background

- "Our practice exclusively uses devices made by Medtronic, NuVasive, and Globus. We do not use Alphatec at all."
- "This has been an historic relationship based on comfort that we have with the products, their quality, and the training and customer service that we receive from these three companies."
- "Comfort and confidence is key."
- "Clearly, the dominant player in spinal devices is Medtronic."
- "Our practice doesn't own an ambulatory surgery center. So when there is a new device that we become interested in, the only way we can get access to them is to go through our hospital's formulary-committee process. Frankly, the primary driver for the hospital is cost. It is our job to convince them of the effectiveness, safety, and clinical benefits that any new device would have that would make it deserving of being purchased by the hospital. This is a protracted process, but typically, we have been quite successful in building the case for purchasing."
- "We are the drivers in prospecting for innovation in the formulary-committee process. The hospital would be just fine in staying with the devices that they have had historically. We find the new items through reading in the *Spine Journal* and by relying on our contacts in the industry."

Alphatec and NuVasive Strengths and Weaknesses/Growth Potential

- "I really am not familiar with Alphatec. They must be really small."
- "We have had a long-standing relationship with NuVasive. Actually, using the term 'relationship' really accurately describes how we are connected with NuVasive. We know them and they know us."
- "NuVasive's products and support are excellent, but relatively speaking, they are small. I doubt that they could compete over the long term with the big ones like Medtronic."
- "That I don't know hardly anything about Alphatec is quite telling. I consider myself an expert in this area and know virtually nothing about them. That doesn't speak well of their future ability to compete."

Competitive Landscape

- "I feel that this is a fairly competitive industry. The presence of the reps really waned there for a while during the early stages of COVID, but they are making themselves available not only in person but virtually as well."
- "The companies that are the leaders in innovation and gaining market share are the three that we use ... Medtronic, Globus, and NuVasive."
- "The small companies are losing share, from what I can tell. We are very comfortable with staying with the three companies that we have used over time."
- "What all device companies are competing with these days is the advent of 3D printing. I think that this is the real future source of innovation in this field. Being able to customize treatment to an individual patient is hard to beat."

“What all device companies are competing with these days is the advent of 3D printing. I think that is the real future source of innovation in this field.”

Physician's assistant at a neurosurgery practice in the Southeast

6) Physician's assistant in a large orthopedics and neurosurgery practice in the South

This PA has practiced at her current position for five years, after having worked at a major academic neurosurgery practice in Virginia for five years. She indicates that they prefer to use [Met One Technologies LLC](#) for most of their devices. While it is a relatively small company, it has the devices that fit the best with the style of practice of their surgeons. The surgeon who does pediatric neurosurgery, however, prefers Medtronic, as it is large and has the size and style of pediatric devices that many other companies don't have. They do use DePuy Synthes (Johnson & Johnson) lateral lumbar fusion baskets when that approach is indicated.

Alphatec and NuVasive

Background

- “Our practice does not use Alphatec or NuVasive. The academic center that I used to work at did use NuVasive, though, but for only a few very specific things.”
- “Our practice prefers Met One as our primary spine surgery device company.”
- “Our surgeons tend to use the devices that they used when they were in their fellowships, and Met One seems to have been a favorite of theirs when they were in training. Essentially, they fit with the surgical approaches that they learned from their mentors.”
- “Our ambulatory surgery center is also very cost-conscious—much more so than the hospital at which they all practice, which has a preferred-vendor contract with Medtronic, whose prices are actually higher. We still work with the formulary committee, though, to get our Met One devices approved, because they are better and less expensive.”
- We do use Synthes’ lateral body cages when that approach is called for, and we do use their minimally invasive screws and plates, too. My surgeons think these are excellent products.”
- “No one uses Globus. Our surgeons really don’t like their products at all.”

Alphatec and NuVasive Strengths and Weaknesses/Growth Potential

- “I really am not familiar with either of these companies.”
- “If they want to grow, I think that they should be concentrating on the training programs. As I just mentioned, our docs tend to stay with the products on which they learned in their fellowships. Once they have gotten attached to a brand, they tend to stay with it.”

Competitive Landscape

- “This field is very competitive, if it can be judged by the frequent and aggressive visitation by the many sales reps from all the companies. They scaled back a bit during the early stage of COVID, but they are back to full strength now.”
- “My perception is that the big companies are pushing the hardest and bringing in new, innovative things.”
- “Other than Met One, which is our preferred device company, Medtronic, Synthes, and Stryker are the ones that seem to be growing the fastest or, at least, have the attention of my docs.”
- “Medtronic is the preferred device company for our pediatric neurosurgeons, as they seem to have the pediatric-sized and style devices that most other smaller firms don’t have.”
- “There is a new innovative thing on the market, though, that we are really watching. This is the custom 3D printing of fusion cages, much like is being done with knees and hips. This could be a really exciting new development.”
- “Neither NuVasive nor Alphatec are on our radar at all. I don’t think that they can compete with the big companies.”

Neither NuVasive nor Alphatec are on our radar at all. I don’t think that they can compete with the big companies.

Physician’s assistant in an orthopedics and neurosurgery practice in the South

2) Spine Surgery Device Sales Channel

Two spine surgery device sales professionals—one representing a major Alphatec and NuVasive competitor and an independent Alphatec distributor—both see Alphatec rising and NuVasive declining. The competitive rep said Alphatec’s purchase of EOS Imaging portrays the company as an industry leader and will generate more interest from the key opinion leaders (KOLs) in the spine surgery space. Also, Alphatec’s targeting and hiring of NuVasive sales professionals is gaining share and turning surgeons away from NuVasive to Alphatec products. The Alphatec distributor said the company has a positive and innovative corporate culture due in part to its CEO, Pat Miles, and the many former NuVasive employees who have followed him to the company. Alphatec is also agile and responsive to surgeons’ needs. The company is introducing products at a steady rate, which helps expand a limited product line. Alphatec is also expanding internationally. Its primary weakness is its small size, which precludes it from successfully competing for large hospital and GPO contracts. NuVasive, which does successfully compete for large hospital and GPO business, has lost some of its industry stature because of problems with its MAGEC rods and its termination of many midlevel managers, who were well-connected in the spine surgery community. NuVasive is said to have increased its level of bureaucracy and decreased service.

Key Silo Findings

Background

- 1 is an experienced sales professional for a major Alphatec and NuVasive competitor.
- 1 is an independent Alphatec distributor.

Alphatec and NuVasive

Alphatec and NuVasive Strengths and Weaknesses

- Alphatec's CEO, Pat Miles, is building a company that has a positive and innovative corporate culture and is agile and responsive to surgeons' needs. It has made a key acquisition in EOS Imaging, raising its profile and gaining increased interest from KOLs. Its hiring of successful NuVasive management and sales professionals is driving meaningful gains in industry mind share along with financial gains. Alphatec's primary weakness is its small size, which precludes it from competing for large hospital and GPO contracts.
- NuVasive offers strong products, including its lateral system and technology in the spine deformity space. It also successfully competes for large hospital and GPO contracts. It has lost some of its industry status because of problems with its MAGEC rods. Also, the termination of several well-connected midlevel managers, an increase in bureaucracy and a decrease in service have become weaknesses.

Growth Potential for Alphatec and NuVasive

- 2 expect Alphatec to continue to experience growth, but not at the aggressive projected levels.
- 1 said NuVasive could hit its numbers, but the general COVID-related slowdown in the industry could hurt that effort.
- 1 said NuVasive will not meet its growth projections.

Competitive Landscape

- 1 said Medtronic, DePuy, and Stryker are industry leaders that have succeeded in securing hospital and GPO contracts. However, they may begin to suffer some stagnation because they lack innovation.

1) Spinal device sales representative in academic hospitals; repeat source

This spine sales representative, who works with large academic institutions in the Northeast, thinks Alphatec's acquisition of EOS and its hiring of NuVasive representatives across the country will drive the company's growth. The spine surgeon team in the operating room may change day to day, but the surgeon relies on one rep to help manage cases and assist on every spine procedure. NuVasive has lost stature with its [MAGEC rod problems](#) and its firing of many visible midlevel managers as the company tried to improve its P&L for Wall Street. The bottom line is that Alphatec has good enough products to take market share for the rep that leaves NuVasive and goes to Alphatec. The company does not need to have a better product but a better rep. Alphatec should gain the most share and NuVasive lose the most. Alphatec's sales target of \$238 million is not attainable—more like \$200 million. NuVasive targets are achievable, but like all companies in this space, COVID and staffing problems “are bringing our numbers down and will pull their numbers down as well.”

Jan. 7, Alphatec interview summary: Alphatec cannot grow 25% in 2021, and the industry will not experience double-digit growth. The marketplace is under duress because of COVID-19 halting elective surgeries, its impact on household economies, and price erosion due to VAT committees and hospital purchasing departments. This sales professional does not see Alphatec as an innovator or differentiating its products—they are copies that get around patent protection. In major hospitals, companies such as Alphatec are relegated to competing for the 10% of the business not controlled by purchasing, thus extremely limiting its opportunities.

Background

- This source is a direct sales professional for a major spine device manufacturer with 11-plus years' experience.

Alphatec and NuVasive Strengths and Weaknesses

- “Alphatec is a remarkably interesting company. It acquired EOS in September, which is a strong move. This will get them more key-opinion-leader interest and portrays them as leaders. The other growth aspect is the cannibalized business. They are stealing NuVasive reps left and right. Pat Miles, their CEO, is targeting reps and personnel who have strong relationships with key customers and have their trust and loyalty. Reps are jumping to Alphatec across the country, primarily from NuVasive, sometimes offering the rep \$200K more. And the net is that each will bring millions of new business with them from their customer base, who will change products because of their working relationship with the rep. At the end of the day, the surgeons want the rep who is supplying their devices, who has been setting up their cases and assists them. The surgeon has a different tech, a different OR tech ... on each case, but they want to have the same company rep whom they worked with for years. This is good for the patient and the surgeon and helps them sleep at night.”
- “The rep switching from one company to Alphatec almost always has a 12-month noncompete. The rep cannot be at the case or directly in contact with the doctor. They are behind the scenes helping to plan the case, making sure the

Alphatec and NuVasive

trays and products are all available and always a phone call away from the current rep if there are questions or concerns that the surgeon has. Never in direct contact with the surgeon but in direct contact with the rep on site at the procedure. This works very well. After 12 months, they move out from behind the curtain.”

- “At the end of the day, Alphatec has good enough products to take away business when a rep leaves NuVasive and goes to Alphatec. They don’t have to have a better product.”
- “Alphatec is an up-and-coming company. They cannot compete in the hospital market, as they have too few products and get outleveraged by the five or six biggest companies. They are attacking surgi-centers and community hospitals on the outskirts of the academic centers. The interesting dynamic is that the community hospitals are being bought up by bigger hospitals. The big hospitals already have purchasing contracts for these procedures, and when the acquisitions are closed, the smaller companies usually get pushed out as the purchasing department contracts [and the largest manufacturers] prevail.”
- “NuVasive needs a better deformity line, and their cervical portfolio is weak. They are working agreements with other companies often outside the U.S. to fill their gap. They are too big to be acquired, but NuVasive may well acquire a smaller company. They may be looking at Alphatec.”
- “NuVasive has strong products in their lateral system and interesting technology in the deformity world but have lost some respect over their MAGEC rod in spine. The MAGEC rod is in pediatrics and allows patients to have their periodic adjustments without returning to the OR. Unfortunately, the rods started to break and bleed and eventually were pulled from the market. When they reintroduced the product, they guaranteed it for two years but mandated to get the guarantee, you had to use their screw system. The set of rods costs \$36,000. The surgeon often was not familiar with the NuVasive screws, as they used other company screws. Surgeons were feeling forced into a screw system they didn’t want to use and that NuVasive was not being a good partner—just wanting to push more product and squeeze more sales out of their procedures.”
- “Regarding reputation with most surgeons, the rep and manager are the key. That is who the surgeons see, know, and have experience with. They are pretty blind to executive management of most companies. The key opinion leader is different and cares about the upper manager because they can influence leaders and company executives and help shape their direction and product development decisions. Looking specifically at NuVasive, they were bleeding money and in trouble. They had to dismiss quite a few midlevel and executive positions to save money and protect their P&L. But the consequences were realized, resulting in significant loss of support.”

“At the end of the day, Alphatec has good enough products to take away business when a rep leaves NuVasive and goes to Alphatec. They don’t have a better product.”

Spinal device sales representative

Growth Potential for Alphatec and NuVasive

- “I believe that ATEC will gain the most share. NuVasive will lose the most.”
- “With the COVID environment and the resulting staffing issues in healthcare across the nation, I do not think ATEC will reach the \$238M they are projecting. They could come close to \$200M, though.”
- “NuVasive seems reasonable to hit their projected number, but don’t be surprised if they fall short. They are dealing with the current pandemic environment like everyone else. Our numbers are down due to the staffing and COVID issues across the country. There numbers will be, too.”

Competitive Landscape

- Did not discuss.

2) Independent Alphatec distributor; repeat source

This Alphatec distributor describes strong sales and product innovation at the company, with positive, organic growth throughout the pandemic and beyond. The attitudes and activities that allowed NuVasive to grow have been lost at the company but adopted by Miles and team at Alphatec. He describes complaints from surgeons about the increased bureaucracy and decreased service levels at NuVasive. Large established companies including Medtronic, DePuy, and Stryker have the ability to bundle beyond spine products, which is attractive to hospital groups. But these companies are not innovative. Alphatec has secured business in some hospitals but needs to fill out its product line to become competitive in the larger and academic medical facilities. Alphatec also plans to expand internationally now that it is able to do so. Growth of 64% for Alphatec is achievable; more than 14% growth for NuVasive is unlikely.

Alphatec and NuVasive

Jan. 7. Alphatec interview summary: Alphatec is the hottest company in this space today due to its new procedure-based products and its executive leadership. Compared to many of the bigger manufacturers, like Stryker, Alphatec is investing more in product development and getting its products to market faster. Pricing is increasingly tight, and companies need to be lean and smart and have the best relationships with their customers. Alphatec is doing this better than its competitors.

Background

- This source is a sales and distribution professional in the spinal device industry and focused on Alphatec products.

Alphatec and NuVasive Strengths and Weaknesses

- “ATEC is introducing new products at a steady rate. Sales are growing like crazy. The company has had a few inventory (back order) issues, but they are addressed quickly.”
- “The people who grew NuVasive from the ground up have all left. Most followed Miles to ATEC. NuVasive has gone through a lot of management changes and struggles with bureaucracy.”
- “ATEC’s goal is to pioneer new procedures—to lead the way, expecting others will copy. The company is following the path of NuVasive in the early days, when they listened to surgeons and provided exceptional service.”
- “NuVasive has good products, but ATEC will be introducing better products as they fill out their portfolio.”
- “To grow, a company needs to be agile and react to market needs. NuVasive no longer does that. ATEC does.”
- “Customer focus is the culture at ATEC. They put the surgeons first and have created a very hospitable environment. It’s like a family.”
- “I am hearing surgeons complain about the increased bureaucracy and decreased service levels at NuVasive. NuVasive was once the beloved underdog, but now that company is ATEC.”
- “ATEC still needs to fill out its portfolio to become more attractive to larger and academic facilities. Although ATEC is getting into some hospitals, the teaching centers are more restrictive. The company needs a more comprehensive offering to be competitive there.”

To grow, a company needs to be agile and react to market needs. NuVasive no longer does that. ATEC does.

Independent Alphatec distributor

Growth Potential for Alphatec and NuVasive

- “ATEC was the only company in the space to have grown during the pandemic, despite the moratoria on elective surgeries. Since then the company has been enjoying continued organic growth, not simply a post-pandemic bump.”
- “ATEC is getting ready to go international. The company had previously sold the rights to international markets, but that contract is now expired. Entry into international markets will allow the company to grow more rapidly.”
- “64% growth is definitely achievable for ATEC.”
- “[Greater than] 14% growth for NuVasive seems high. I do not know where they expect that growth to come from.”

Competitive Landscape

- “Medtronic, Depuy, and Stryker have long been leaders, but they are likely to see stagnation because they are not staying competitive. They offer nothing unique. But they also have the ability to bundle products beyond just spine, which can make contracts appealing to hospital groups.”

Alphatec and NuVasive

3) Industry Specialists

A former spine surgeon who is now a spine device entrepreneur and an independent marketing director of an agency focused on spine devices both perceive that Alphatec has a competitive edge over NuVasive. The former surgeon said little innovation occurs in spine surgery. However, Alphatec's CEO is very well-respected and is expected to generate positive momentum for the company, provided it engages with spine surgeons and listens to their needs. NuVasive is overly bureaucratic and has lost its caring connection to surgeons. The marketing director said both companies are great and noted that Alphatec CEO Pat Miles previously developed NuVasive into a Goliath in the spine industry—but which now competes in what he described as the “messy middle,” focused on highly discounted hospital and GPO contracts. Miles is now revolutionizing Alphatec's products and marketing organization and approach. He is attracting the best talent in both medicine and marketing, making Alphatec the David of the two companies. This source noted that spine surgery is becoming much more prevalent in ambulatory surgery centers, where smaller, nimbler niche companies such as Alphatec can excel. The spine device entrepreneur said 3D printing is the future of spine devices.

Key Silo Findings

Background

- 1 source is a retired spine surgeon and now a spine device entrepreneur.
- 1 source is a managing director of a medical device marketing agency.

Alphatec and NuVasive Strengths and Weaknesses

- 2 praised Alphatec CEO Pat Miles.
 - o 1 said Miles is expected to do good things.
 - o 1 said Miles is revolutionizing Alphatec both medically and in marketing. He is also attracting the best talent.
 - o 1 said NuVasive has become overly bureaucratic and lost its caring connection to spine surgeons.
 - o 1 said NuVasive is a great company that participates in the “messy middle” with the top companies of the spine device market.

Growth Potential for Alphatec and NuVasive

- 1 said Alphatec's 64% growth expectation is aggressive but said it is well-positioned for growth if it engages with surgeons and meets their needs.
- 1 said the future of spine surgery is in outpatient procedures at ASCs, a trend that favors nimble niche companies such as Alphatec.

Competitive Landscape

- 1 said Medtronic has a unique device surface. Spine device companies engage surgeons as highly paid consultants to ensure the use and promotion of their products—a practice that this source thinks is possibly illegal. And little innovation occurs in the industry, with companies copying each other's products.
- 1 said the six top companies in the industry compete aggressively on price for contract business with hospitals and GPOs.

1) Retired spinal surgeon and spinal implant entrepreneur; repeat source

This retired spine surgeon said nothing innovative is happening in the industry—companies simply copy each other's offerings. Alphatec's CEO is well-respected and is expected to do good things. If Alphatec adopts NuVasive's prior practice of engaging spine surgeons and listening to their ideas and needs, it may be in a good position for growth—although 64% seems overly aggressive. NuVasive has gotten overly bureaucratic and lost the care and connection with surgeons that allowed it to grow in the first place. One of the challenges in gaining traction and recognition for a new brand is the existing consulting contracts with prestigious surgeons—which is a common practice but, in this source's opinion, borders on illegality.

Jan. 7, Alphatec interview summary: This experienced spine surgeon emphasizes the requirement to contract with hospitals to grow market share. Ambulatory surgical centers are becoming increasingly irrelevant as hospitals purchase the referral base and use their own surgeons and facilities for those patients. Alphatec is not offering innovative products but, rather, incremental variations on existing technology. Some of those are improvements, but some actually make the

Alphatec and NuVasive

procedure more difficult. The one significant group of key opinion leaders with real influence on tools used is the Norton Leatherman Spine Specialists. But at \$1.3 million per surgeon, Alphatec is unlikely to displace existing vendor relationships nor be willing to risk FDA scrutiny.

Background

- Source is a retired spinal surgeon with experience across many brands. He is also a spinal implant and device entrepreneur.

Alphatec and NuVasive Strengths and Weaknesses

- “ATEC offers nothing unique, but the rumor is that Miles is very well-liked and capable. It is expected that he will do a lot of good things.”
- “NuVasive has gotten very bureaucratic as they have grown. When they were small, they embraced ideas from surgeons. It is how they grew but is no longer the case. Perhaps ATEC is taking that mantle.”

Growth Potential for Alphatec and NuVasive

- “One of the challenges in this area is that the prestigious spine specialist, [Norton Leatherman](#), has been tied up with Medtronic for the last 40 years.”
- “There is nothing in the industry currently that will fundamentally change spine surgery procedures.”
- “[Projected] 64% growth is very aggressive even on a relatively small base. I do not think ATEC can even buy that level of growth.”

Competitive Landscape

- “Medtronic [Titan Spine] has a surface technology that is supposed to improve fusion rate, but I have no direct experience with it. The 3D printing industry is likely to lead the technology into the future.”
- “The spine companies partner with surgeons through consulting contracts to get their business. It is very expensive (more than \$1 million) and, in my opinion, just on the borderline of being legal. If a spine company came out with a new product and could convert a surgeon from another company based on its benefits, that would be something, But it is not happening.”
- “There is nothing truly innovative in the industry. Companies copy each other a lot.”

NuVasive has gotten very bureaucratic as they have grown. When they were small, they embraced ideas from surgeons. It is how they grew but is no longer the case. Perhaps ATEC is taking that mantle.

Retired surgeon and spinal implant entrepreneur

2) Managing director of a marketing agency in the spinal surgery device space; repeat source

This managing director of a marketing agency focused on surgical devices compares Alphatec and NuVasive to David and Goliath. NuVasive competes in the “messy middle” of the market where hospital and GPO contracts are king, and companies try to be all things to all spinal surgeons. Alphatec CEO Pat Miles developed NuVasive into the Goliath it is today and now is reinventing Alphatec, revolutionizing both their surgical strategy—the [PTP](#)—and marketing and sales. Miles continues to attract the best talent in the industry, both on the medical and marketing side. They are niche players, not playing in the messy middle and focusing their innovation and creativity strategically. They are David, squaring off versus the Goliaths. Their CEO knows both roles and knows how to take off heads. The spinal market is moving to the ambulatory surgical centers, where device manufacturers need to be lean and nimble with smaller margins. The niche players will have an advantage and should lead in this growing segment.

Jan. 7, Alphatec interview summary: This former sales and business leader in the spinal surgery space who is now managing director of a healthcare brand agency sees significant roadblocks to growth in this market but believes Alphatec is best positioned for innovation and growth. Alphatec CEO Pat Miles is the visionary to drive this growth, in large part due to Alphatec’s new prone transpsoas procedures. Growth in double digits is extremely hard to predict due to the pause in elective surgeries and an environment that discourages changing technologies and products in the hospital. [Spineology Inc.](#) and Stryker are poised to grow. This source perceives a revolution in the distribution of spinal surgery products through more regional and reimagined distributor reps.

Alphatec and NuVasive Strengths and Weaknesses

- “Alphatec is regarded as a new company. Miles is the transformative leader. Alphatec has experienced leadership who have done it before and learned what works and what does not. Miles is now building at Alphatec what was missing at NuVasive. Alphatec was terrible prior to CEO Miles. The products and approach were all ‘me, too.’ ” Miles

Alphatec and NuVasive

came to Alphatec and started the new Alphatec. He has revolutionized the company, innovated two different approaches: the clinical and the creative marketing. The new surgical approach was the lateral access for complex spine procedures. This is the PTP technique. The change in marketing and selling is the other revolution. They changed how they market and grow share. Pat Miles is a tremendous motivator and recruits the best talent because the best wants to work for Miles. They strategically are a niche player in this market. They target their products and surgeons and not the big hospitals and big contracts.”

- “NuVasive is a totally different company from ATEC. They have all the money and time to be all things to all surgeons. While Miles was at NuVasive, they built the XLIF foundation, a new system for surgeons when it was released. They set themselves to be the comprehensive spine company.”

Growth Potential for Alphatec and NuVasive

- “Both Alphatec and NuVasive are great companies with great reputations with surgeons and the marketplace. NuVasive has become Goliath, and now Alphatec is David. And very interestingly, Alphatec’s CEO has been both David *and* Goliath. He knows both roles, and he knows and is not afraid to chop heads.”
- “[Dr. Luiz Pimenta](#) is the godfather of the XLIF surgical system, made famous by NuVasive. After working with NuVasive, he followed Miles to Alphatec and was the [inventor of PTP](#) at Alphatec. What he did for XLIF, he is now doing for PTP.”
- “Spinal surgery is the most territorial niche in the medical device field. They are convinced only the spine community can do the job right, and you have to be part of their community. They are the Navy Seals of the surgical world and continue to revolutionize their world.”
- “Who will grow and will not is difficult to predict. What I do believe is that the nimbler companies will win. Those companies able to execute outpatient spine surgeries will be the ultimate winners. The challenge is that the industry has a different financial margin in the ambulatory surgical center—the ASC—that the hospitals market. The company that can be leaner and nimbler will lead. Will an ASC buy a big robotic surgical system? Probably not. The surgical-spine industry will need to adapt to smaller margins and figure out how to deliver that.”
- “Who will be the future winners? Take a chance on a niche player who can compete in the ASC arena versus the hospital. These will be the future winners.”

Both Alphatec and NuVasive are great companies with great reputations with surgeons and the marketplace. NuVasive has become Goliath, and now Alphatec is David.

Managing director of a marketing agency

Competitive Landscape

- “There are five or six big-share companies that compete in the ‘messy middle,’ with price-cutting contracts to big hospitals and GPOs. NuVasive was the prior disruptor to the 800-pound gorillas who dominated the market. Now they are the 800-pound gorilla. This is their dilemma. XLIF was the innovation. It won over the market. They became the Goliath. With many surgeons, they are the standard. Many began to ask, ‘How high can they go, how much more dominant can they be?’”

Secondary Sources

These four secondary sources focused on NuVasive’s use of virtual reality for spine surgery training, 3D printing for spine surgery, device launches by both Alphatec and NuVasive, and a market report on minimally invasive spine surgeries.

Oct. 27 Becker’s Spine Review [article](#)

NuVasive will incorporate virtual reality for spine surgery training.

- “NuVasive will [release](#) a virtual-reality spine surgery training module, the company said Oct. 27.”
- “The module will be used with the NuVasive X360 system to complement its clinical professional development program. The VR platform was made in collaboration with PrecisionOS developers and will integrate NuVasive’s lateral approach to single-position spine surgery.”
- “The VR platform will be offered in 20 languages and will provide data insights to help NuVasive determine how surgeons best learn and refine surgical approaches”

Alphatec and NuVasive

Oct. 18 Future Medicine [article](#) (Purchase required)

This link provides access to a review of 3D printing in spine surgery: current and future applications

- “The revolutionary technology of 3D printing has gained traction in the medical field in recent years; spine surgery has in particular seen major advances in 3D printing. The applications of this technology have grown from utilizing 3D models to enhance patient education to patient specific, highly detailed intraoperative anatomical molds. However, obstacles remain that prevent the widespread utilization of 3D printing in spine surgery such as cost, time consumption, lack of long-term data, and regulation by the US FDA. Despite these obstacles, it is evident that 3D printing will be utilized to optimize preoperative, intraoperative, and postoperative care of patients with spine deformity. The purpose of this review is to establish the applications of 3D printing for spine surgery.”

Oct. 18 Becker Spine Review [article](#)

5 major device launches in 2021, including two from NuVasive and one from Alphatec.

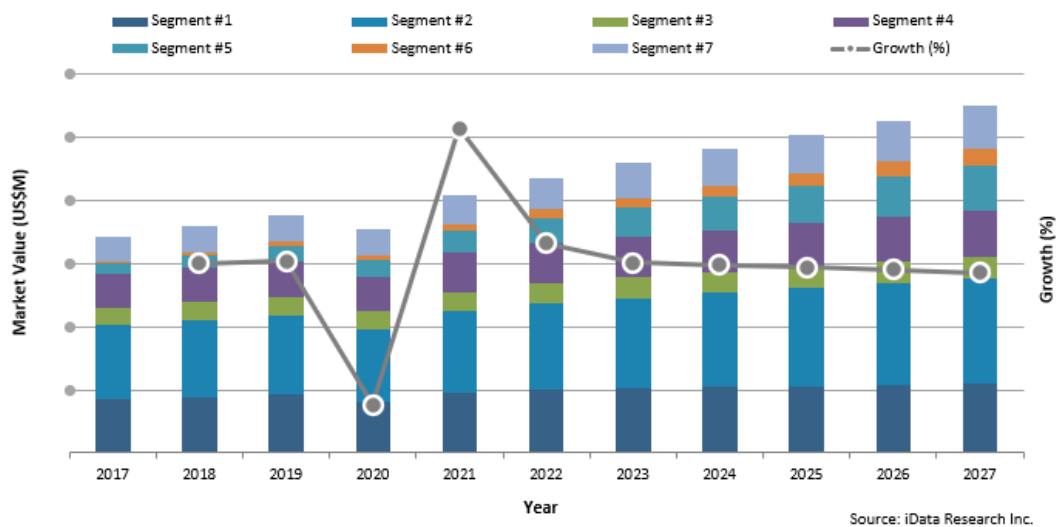
- “From a sacroiliac joint compression device to a surgical platform, here are five spine and orthopedic product launches that have caught the attention of readers in 2021:”
 - “Globus Medical launched the [Creo One](#) robotic screw for spine surgery in April. It's the first screw designed to be used with the Excelsius GPS robot. It simplifies the pedicle preparation of Globus Medical's modular pedicle screw platform while maintaining navigational accuracy.”
 - “Orthopedic device company Sacrix launched the third iteration of [SacroFuse](#), a threaded compression device designed for immediate stabilization of the sacroiliac joint. The new design is a screw-cage hybrid intended to facilitate insertion and osseointegration, the company said in January. The device is self-drilling, self-tapping and compresses across the sacroiliac joint.”
 - “NuVasive launched its [Cohere TLIF-O](#) implant for posterior spine surgery in October. It utilizes NuVasive's PEEK technology and is designed with lordosis in the oblique plane to maintain coronal alignment and restore sagittal balance.”
 - “NuVasive's [Pulse](#) platform for spine surgery received FDA 510(k) approval, and it was launched in July. Pulse is an integrated platform made to increase safety and efficiency in spine surgery.”
 - “Alphatec launched the [InVictus OsseoScrew](#) expandable spinal fixation system in September. It is designed to be an alternative to the conventional use of cemented fenestrated screws in patients with compromised bone and helps restore spinal column integrity.”

iData Research Inc. Market [report](#)

- “Overall, the U.S. minimally invasive spinal implants market was valued at \$1.8 billion in 2020, a 6% decrease from \$1.9 billion in 2019 caused by the COVID-19 pandemic. The market is expected to increase over the forecast period at a CAGR of 6.5% to reach \$2.7 billion in 2027.”

Alphatec and NuVasive

Minimally Invasive Spinal Implants Market Growth, United States, 2017-2027



Additional research by James Boland, Pam Conboy and Bruce Wicks.

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