

March 3, 2006

Mail Stop 6010

Ronald G. Hiscock
President and Chief Executive Officer
Alphatec Holdings, Inc.
2051 Palomar Airport Road
Carlsbad, CA 92011

**Re: Alphatec Holdings, Inc.
Registration Statement on Form S-1
Filed February 6, 2006
File No. 333-131609**

Dear Mr. Hiscock:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. Please confirm that any preliminary prospectus you circulate will include all non-Rule 430A information. This includes the price range and related information based on a *bona fide* estimate of the public offering within that range. This also includes a completed principal stockholder table. Also, in the next amendment, please fill in the blanks throughout the filing, and note that we may have additional comments after you do so.
2. Please revise your disclosure throughout the filing to reflect your results for the fiscal year ended December 31, 2005.

Prospectus Summary, page 1

3. Please provide independent and objective support for your statements of industry leadership. For example, we note disclosure of your belief on page 1 that you are a “leading medical device company...focused on surgical treatment of spine disorders.”
4. Please provide copies of the industry reports and market data cited throughout the registration statement, clearly marking the relevant sections. For example, on page 1, you cite spine fusion market growth projections. Also tell us whether the sources of the cited materials have consented to your use of their data and whether any of the reports were prepared specifically for your use.

History, page 2

5. We note your disclosure in the last full paragraph on page 2 that the acquisition of Alphatec Spine by HealthpointCapital provided you with additional capital. Please summarize here and detail in the Business section of the prospectus the amount of the proceeds you retained from that transaction and the amount paid to the former Alphatec Spine shareholders.

Corporate Reorganization, page 3

6. Please disclose the business rationale for creating the New Redeemable preferred stock in connection with this IPO and, in an appropriate section of the prospectus, describe the structure of this offering in greater detail.
7. Please disclose the following in the Summary section:
 - You are entitled to retain 50% of the net proceeds from this offering up to a maximum amount of \$65 million;
 - You are required to use the remaining net proceeds from this offering to satisfy redemption, dividend and liquidation obligations to your existing shareholders; and
 - To the extent these obligations exceed the remaining net proceeds, you are required to issue a combination of common stock and New Redeemable preferred stock to satisfy these obligations.
8. Please revise your calculations here and throughout the registration statement of the number of shares of common stock and New Redeemable preferred stock to be issued and cash to be paid pursuant to the reorganization transactions to reflect their occurrence on the anticipated closing date of this offering.

Risk Factors, page 10

General

9. Please include a risk factor that addresses the risks associated with the fact that the majority of the net proceeds of this offering will be paid to your current principal shareholders and that, upon satisfaction of your Liquidation and Redemption Value obligations, you may retain only a small portion of the net proceeds. You should discuss, for example, the fact that the portion of the net proceeds you retain may be insufficient to fund your ongoing operations, international expansion and product development plans.

Our business plan relies on certain assumptions, page 9

10. We note your disclosure here of an increasing awareness and use of non-invasive and non-surgical treatment alternatives. Please include in the Business section of the prospectus a discussion of the increasing awareness of these alternatives and their actual or potential effects on your operations.

To be commercially successful, we must convince the spine surgeon ..., page 12

11. Please disclose the number of surgeons currently trained to use your products.

We depend on various third-party suppliers, page 13

12. Please disclose the percentage of your revenues derived from products containing PEEK in the most recently completed fiscal year.

We are subject to substantial governmental regulation..., page 15

13. We refer you to your disclosure in the last paragraph of this risk factor. Please disclose the countries other than the U.S. and Japan where your products have been or may be sold. We note your disclosure on page 70 that you have no plans to sell your products in Europe.

We may be subject to damages resulting from claims..., page 26

14. Please provide a cross-reference to the Abbott Spine complaint mentioned on page 80 of the prospectus.

Certain members of our board of directors also serve as officers and directors..., page 29

15. Please tell us whether you have or plan to implement procedures to address any such actual or perceived conflicts of interest.

As a new investor, you will experience substantial dilution..., page 29

16. Please disclose under this risk factor the fact that you are required to issue additional common shares and New redeemable preferred shares if the net proceeds of this offering are insufficient to satisfy your Liquidation and Redemption Value obligations. We refer you to your disclosure in the second paragraph on page 103.

We may become involved in securities class action litigation..., page 33

17. Briefly describe the factors unrelated or disproportionate to operating performance that have resulted in extreme price and volume fluctuations for the stock of medical device companies.

Change of control provisions in some of our employment agreements..., page 33

18. Please disclose whether the IPO will trigger any of the mentioned change of control provisions.

Use of Proceeds, page 36

19. Please expand your Use of Proceeds disclosure to include the Redemption and Liquidation Value (as defined on page F-29) of your preferred and common stock as of the anticipated closing date of this offering.
20. We note your disclosure on page F-30 that upon the occurrence of a Significant Transaction (which would include this IPO), each share of Rolling common stock is entitled to receive a \$1,000 dividend payment. It is unclear whether the conversion of these shares in connection with the consummation of this offering still entitles the Rolling common stock to the \$1,000 dividend at the closing of this offering. If this is in fact the case, please disclose the aggregate dividend amount to be paid from the proceeds of this offering.

Capitalization, page 38

21. Please revise to remove the caption relating to cash and cash equivalents from your presentation of capitalization.

Dilution, page 39

22. Please expand to quantify the extent to which investors in this offering will be further diluted and how the table at the bottom of the page will change assuming the exercise of all outstanding stock options with exercise prices less than the IPO price and the underwriters' exercise of the over-allotment.

Unaudited Pro Forma Condensed Combined Consolidated Statements of Operations for the Nine Months Ended September 30, 2005 and for the Year Ended December 31, 2004, page 42

Pro Forma Condensed Combined Statement of Operations, page 43

23. Please tell us why you are eliminating the historical expenses related to in-process research and development and inventory step-up. The effects of unusual events and historical expenses ordinarily should not be eliminated to arrive at pro forma data. Please refer to Rule 11-02(c)(4) of Regulation S-X.

Management's Discussion and Analysis of Financial Condition and Results of Operation, page 45

Results of Operations, page 46

24. We note the discussion on page 47 that the significant increase in revenues is primarily attributable to continued adoption of your products and new product introductions. Please provide a specific discussion of the significant factors that contributed to the increase, including the effects of changes in unit sales, prices or product mix or the introductions of new products.
25. We note that gross profit margin for the nine month period ended September 30, 2005 was 59.7% and was 69.4% and 66% for the years ended December 31, 2004 and 2003, respectively. Please revise to separately quantify and discuss the underlying reasons for the significant changes in gross profit margins.

Liquidity and Capital Resources, page 50

26. We note disclosure on page 50 of your belief that net proceeds from this offering, together with your existing resources, will be sufficient to fund your ongoing operations for at least the next 12 months. Please clarify, if true, that this is your belief given the portion of the net proceeds you are expected to retain after satisfying your redemption, dividend and liquidation obligations to existing stockholders.

27. We note your disclosure on page 50 that, if necessary, HealthpointCapital has committed to provide you with the funds necessary to continue your operations in 2006. Please describe the material terms of this agreement and file the agreement as an exhibit to the registration statement.
28. We refer you to your disclosure in the first two full paragraphs on page 51. Please disclose whether you are currently in compliance with the covenants of the new credit facility.

Business, page 57

General

29. We note your references here and throughout the filing to your products being “cleared” by the FDA and your references at the top of page 69 to being “registered” with the FDA. Please revise your disclosure as necessary to clarify whether you have obtained the FDA’s approval to sell your products as marketed.

Our Competitive Strengths and Strategy, page 57

30. We refer you to your disclosure in the second bullet on page 58. Please explain in greater detail how you expect to “rapidly respond to unexpected increases in market demand” in light of the difficulties in scaling up production (discussed in the first full risk factor on page 11) and in developing products in a timely manner (discussed in the second risk factor on page 18).

Our Products In Development, page 65

31. Please provide the disclosure required by Item 101(c)(ii) of Regulation S-K for all of the disclosed products in development.

Sales and Marketing, page 67

32. Please tell us whether any of your independent distributor agreements are material to your operations and file any such material agreement as an exhibit to the registration statement.
33. Please discuss the difficulties and challenges you are likely to face in your attempt to expand in the Japanese market, particularly in light of your disclosure on page 50 that you expect to incur net losses for the foreseeable future.

34. To the extent material, please file as exhibits the agreements described in the second paragraph on page 67.

Manufacture and Supply, page 68

35. To the extent material, please file as exhibits your contracts with the suppliers referred to in the second to last whole paragraph on page 68.

Intellectual Property, page 69

36. Please file your material patent license agreements as exhibits.

Government Regulation, page 72

37. We refer you to your disclosure in the third paragraph on page 74. Please disclose whether the FDA has made any such decision applicable to your allograft or, to the extent that you are aware, tell us when any such decision is expected.

International Device Regulation, page 74

38. Please tell us whether your subsidiary, Alphatec Pacific, qualifies as a Japanese entity or whether you are required to appoint a contractually bound in-country caretaker.
39. Please describe briefly the new approval screening standards you expect the MHLW to establish in Japan, and specifically discuss whether any such changes are expected to impact the level of third-party reimbursement for procedures utilizing your products.

Compliance with Fraud and Abuse Laws, page 75

40. Please include a discussion of any equivalent Japanese fraud and abuse laws, particularly anti-kickback statutes, and your efforts to maintain compliance with any such laws.

Third-Party Reimbursement, page 78

41. Please disclose the percentage of the cost of procedures utilizing your products that are generally covered by third parties in the U.S. We refer you to the equivalent disclosure with respect to insurance coverage in Japan found in the penultimate paragraph on page 79.

Legal Proceedings, page 80

42. Please update the status of the Abbott Spine proceeding.
43. Please provide a cross-reference to the complaint you brought against Benchmark Medical described on page 98.

Management, page 81

Executive Compensation, page 89

44. Please tell us why you have not included Mr. Yoshimi in the Executive Compensation table. Refer to Instruction 2 of Item 402(a)(3) of Regulation S-K.
45. Please update the bonus award amounts based on your fiscal 2005 revenues. We refer you to your disclosure in footnote 8 to the summary compensation table.
46. Revise footnote 10 to the summary compensation table to clarify that the restricted stock described in footnotes 11 – 16 is Series A-1 common stock.
47. Please reconcile the disclosure in footnotes 11-16 indicating that each officer purchased restricted shares with the disclosure on pages 91 and 92 which indicates that pursuant to each officer's employment agreement, you granted them such shares. To the extent you did grant such shares, please update the restricted stock awards column in the summary compensation table accordingly.

Employment Agreements and Change of Control Arrangement, page 90

48. Please reconcile your disclosure on page 91 that Ms. Romanoski's base salary is currently \$225,000 with her employment agreement (Exhibit 10.11) which states that her base salary is \$175,000.

Certain Relationships and Related Party Transactions, page 94

49. Please ensure that you include in this section a discussion of all applicable related party transactions disclosed in Note 4 to the financial statements (page F-23).

Financial Advisory Service, Rental and Other Payments and Agreements, page 97

50. Please describe briefly the restrictive covenants of the Severance Agreement mentioned in the first paragraph on page 98 and update us as to the status of this legal proceeding.

51. We note your disclosure on page 98 that Mr. Yoshimi received 20% of the stock of Alphatec Pacific. Please tell us whether these shares will be converted to your common shares pursuant to the reorganization transactions discussed on pages 3 and 102 and if so, disclose the conversion rate.
52. Please tell us whether this offering constitutes a “change of control” as defined in your stock purchase agreement with Mr. Yoshimi and if so, disclose the share price at which you will be required to purchase his shares based on the anticipated closing date of this offering.

Principal Stockholders, page 99

53. It appears from your disclosure on page 94 that except for Messrs. Lacienski and Pastor, each of the persons and entities listed in the table on page 99 will be receiving New Redeemable Preferred Stock. Please either confirm that these two individuals will not be receiving shares of New Redeemable Preferred Stock or supplement your disclosure accordingly.

Description of Capital Stock, page 101

Common Stock, page 101

54. Please disclose the circumstances under which you may exercise your option to redeem the New Redeemable preferred stock. We refer you to clause (iii) in the first full paragraph on page 102.

Underwriting, page 111

Directed Share Program, page 113

55. We note that the underwriters have reserved a certain number of shares to be sold in this offering to employees, directors and their family members. Please provide us the following information:
- all materials disseminated to potential participants;
 - complete information on how potential participants are being notified and what procedures these investors must follow in order to purchase the offered securities;
 - details on how this directed share plan is being conducted. For example, tell us how the number of reserved shares will be determined; and
 - whether the procedures for the directed share program differ from the procedures for the general offering to the public.

Please provide us with copies of all written communications with prospective purchasers about the directed share program.

Financial Statements, page F-1

56. Please update the financial statements as required by Rule 3-12 of Regulation S-X.
57. Include updated accountants' consents with all amendments to the filing.
58. Please tell us how the stock splits discussed on page 5 have been reflected in the financial statements. Refer to the requirements of SAB Topic 4.C.

Consolidated Statements of Stockholders' Equity (Deficit), page F-5

59. We note that the "accretion to redemption value of redeemable convertible preferred and rolling common stock" is recorded against accumulated deficit. Please tell us why the debit was not recorded against additional paid-in capital in accordance with paragraph 18 of EITF Topic D-98. Please revise or advise.

Note 1. Organization, Basis of Presentation and Summary of Significant Accounting Policies, page F-8

Stock-Based Compensation, page F-11

60. We see that, as a nonpublic entity, you have utilized the Minimum Value pricing model in determining the fair value of options granted to employees. Please note that the use of this method will no longer be appropriate for options granted on or after the filing of your Form S-1. Refer to Appendix E of SFAS 123 (the definitions of public and nonpublic entities) for guidance.

Deferred Stock-Based Compensation, page F-13

61. We note that you reassessed the fair value of the common stock used to grant equity awards going back to March 18, 2005 based on the commencement of the initial public offering process. Please disclose more details of how you determined the reassessed value. Progressively bridge management's fair value per share determinations to the current estimated IPO price per share, identifying all material positive and negative events occurring during the period which could reasonably contribute to variances in fair value.

Note 2. Acquisitions, page F-17

Alphatec Spine, Inc., page F-17

62. We note your reference to a third-party valuation specialist on pages F-18 and F-19. While you are not required to make reference to an independent valuation, when you do so, you must name the expert and file their written consent. See Item 601(b) of Regulation S-K. In addition, revise to disclose the method used to determine the fair values of the assets acquired and the liabilities assumed.
63. We note that \$55 million and \$4.7 million of the purchase prices for Alphatec Spine and Cortek, respectively, were allocated to goodwill. Please revise to disclose details of the valuation methodology and significant assumptions used to allocate the purchase price to the acquired assets and liabilities, including goodwill and each of the identifiable intangible assets. Please disclose the specific nature of the developed technology acquired. In addition, disclosure should be provided of the factors that contributed to the purchase price that resulted in the recognition of significant amounts of goodwill as required by paragraph 51.b. of SFAS 141.
64. In view of the significant in-process research and development write-off, your accompanying footnote disclosures should be enhanced. Please identify the appraisal method used to value the projects and state the significant appraisal assumptions, such as the period in which material net cash inflows from significant projects are expected to commence, anticipated material changes from historical pricing, margins and expense levels and the risk adjusted discount rate applied to the projects' cash flows. Describe each individually significant project acquired, indicate the degrees of completion at the acquisition date and disclose the anticipated cost and time of completion.
65. Also, until all acquired projects have been completed or discontinued, a discussion of each significant project should be presented in MD&A. Please discuss the status of each project that you acquired, including how actual results have compared to the assumptions underlying your appraisal. Material variations from your underlying projections and assumptions should be disclosed and their reasons and potential impact explained in future filings. These disclosures should be provided until the projects are complete or abandoned.

Pro forma Statements of Operations, page F-19

66. We note that the pro forma results for 2005 exclude nonrecurring significant charges for the write-off of in process research and development and the step up in the basis of the inventory. Please tell us how this presentation is in accordance

with paragraph 55 of SFAS 141 which requires disclosures of any material, nonrecurring items included in the reported pro forma results of operations. Please revise or advise.

Note 7. Commitments and Contingencies, page F-26

Put Right, page F-27

67. Please revise Note 7 to clarify your obligation to repurchase the shares of Alphatec Pacific and why you believe that this represents a call option that is required to be accounted for under the guidance of EITF 00-4. In addition, disclose the repurchase value related to the put right.

Part II

Item 16. Exhibits and Financial Statements, page II-3

68. Please file as exhibits the transaction documents pursuant to which you acquired Alphatec Spine.

Exhibit 4.2

69. Please provide Schedule I to Exhibit 4.2.

Closing Comments

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Lynn Dicker at (202) 551-3616 or Brian Cascio at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Adelaja Heyliger at (202) 551-3636 or me at (202) 551-3444 with any other questions.

Sincerely,

Perry Hindin
Special Counsel

cc (via fax): Michael L. Fantozzi, Esq.,
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
617.542.2241