



DIVISION OF  
CORPORATION FINANCE

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

Mail Stop 3030

April 8, 2010

Dirk Kuyper  
President and Chief Executive Officer  
Alphatec Holdings, Inc.  
5818 El Camino Real  
Carlsbad, CA 92008

**Re: Alphatec Holdings, Inc.**  
**Amendment No. 1 to Registration Statement on Form S-3**  
**Filed April 2, 2010**  
**File No. 333-164891**

Dear Mr. Kuyper:

We have limited our review of your filing to the issues we have addressed in our 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 comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. After reviewing this information, we may 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 any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Fee Table

1. We note your revisions in response to comment 1; however, it is unclear how shares registered for the purposes of a redemption or repurchase comply with General Instruction I.B of Form S-3. We therefore reissue the comment.

Selling Stockholders, page 23

2. We reissue prior comment 2. It remains unclear when the selling shareholder acquired the shares in the "Offered Hereby" column of your table.

Signature, page II-5

3. Please tell us under what authority Peter C. Wulff signed the document on behalf of Stephen H. Hochschuler, M.D. and R. Ian Molson. We note that exhibit 24.1 was not signed by Mr. Molson or by Stephen H. Hochschuler.

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 response to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and response to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment 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.

Before the amended registration statement is declared effective pursuant to Section 8 of the Securities Act, the company should provide us with a letter, 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.

Dirk Kuyper  
Alphatec Holdings, Inc.  
April 8, 2010  
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If you have any questions, please call Gabriel Eckstein at (202) 551-3286 or me at (202) 551-3617.

Sincerely,

Russell Mancuso  
Branch Chief

cc: Scott A. Samuels, Esq.  
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.