



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

July 14, 2016

Via E-mail

Amit Meridor
Chief Executive Officer
Syneron Medical Ltd.
Industrial Zone, Tavor Building P.O. Box 550
Yokneam Illit 20692 Israel

**Re: Syneron Medical Ltd.
Form 20-F for the Fiscal Year Ended December 31, 2015
Filed March 21, 2016
File No. 001-34559**

Dear Mr. Meridor:

We have limited our review of your filing to the financial statements and related disclosures and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Form 20-F for the Fiscal Year Ended December 31, 2015

Item 18. Financial Statements

Consolidated Statements of Operations, page F-4

1. You included goodwill impairment losses of \$3.8 million and \$1.2 million in 2015 and 2014, respectively, within other operating expenses. In future filings please present the aggregate amount of goodwill impairment losses as a separate line item in accordance with ASC 350-20-45-2.

Note 2. Significant Accounting Policies

n. Revenue Recognition, page F-26

2. Please tell us the significant deliverables within your multiple-element arrangements and any performance-, cancellation-, termination-, and refund-type provisions. Discuss how you considered ASC 605-25-25-5 and revise future filings to provide all of the disclosures required by ASC 605-25-50-2.
3. Describe to us any training and installation services you provide and tell us why you concluded that your installation is not essential to the functionality of your systems. Refer to SAB Topic 13.A.3.c. Tell us whether the installation and training are specialized and not readily available in the marketplace.
4. Please tell us the significant factors, inputs, assumptions, and methods used to determine selling price (whether vendor-specific objective evidence, third-party evidence, or estimated selling price) for each of the significant deliverables. Refer to ASC 605-25-30-2 and 605-25-50-2.

Note 4. Fair Value Measurement, page F-37

5. We note that you recognized a \$4.6 million loss related to the change in the fair value of your investment in Syneron Beauty during fiscal 2014. We also note that you account for this investment using the fair value method under ASC 825. Please show us your significance calculations for this investment under Rule 3-09(a) of Regulation S-X.
6. We note that you recorded net income of \$4.0 million and \$3.0 million in 2015 and 2014 respectively, due to changes in the fair value of your contingent consideration related to your investment in RBT. Please describe to us the valuation technique and inputs used to determine the fair value as of December 31, 2013, 2014, and 2015 and explain to us the reasons for the changes in fair value. Include quantitative information about the significant unobservable inputs used in the fair value measurement. In future filings provide the disclosures required by ASC 820-10-50-2 (bbb) and ASC 805-30-50-4.

Note 9. Intangible Assets, Net, page F-42

7. We note your discussion of the 2015 goodwill and intangible assets impairment charges related to your CoolTouch reporting unit on page F-18. In future filings please also provide the disclosures required by ASC 350-20-50-2 for your goodwill impairment losses in 2015 and 2014 related to RBT and ASC 350-30-50-3 for your impairment loss of \$1.7 million in 2014.

Note 10. Goodwill, page F-43

8. In future filings please disclose, in accordance with ASC 350-20-50-1, the gross amount of goodwill and accumulated impairment losses at the beginning and end of each period

Note 20. Segment Reporting, page F-64

9. Please tell us how you considered the disclosures required by ASC 280-10-50-40 related to information about products and services.

Note 21. Net Income (Loss) per Share, page F-67

10. We note the table on page F-67 of ordinary shares that were excluded from the computation of diluted net income (loss) per ordinary share for the periods presented because including them would have had an anti-dilutive effect. In future filings please also disclose the terms and conditions of these securities as required by ASC 260-10-50-1(c).

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Amit Meridor
Syneron Medical Ltd.
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You may contact Tara Harkins at (202) 551-3639, or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 with any questions. You may also reach me at (202) 551-3671.

Sincerely,

/s/ Kate Tillan for

Martin James
Senior Assistant Chief Accountant
Office of Electronics and Machinery