

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 1 TO

**FORM S-3**

**REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**SUNSHINE HEART, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of incorporation or organization)

**68-0533453**

(I.R.S. Employer Identification Number)

**12988 Valley View Road  
Eden Prairie, MN 55344  
(952) 345-4200**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**David Rosa  
Chief Executive Officer  
Sunshine Heart, Inc.  
12988 Valley View Road  
Eden Prairie, MN 55344  
(952) 345-4200**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

**Copy to:**

**Phillip D. Torrence, Esq.**  
Honigman Miller Schwartz and Cohn LLP  
350 East Michigan Avenue, Suite 300  
Kalamazoo, MI 49007  
(269) 337-7702

Approximate date of commencement of proposed sale to the public: Not applicable. This post-effective amendment deregisters those securities that remain unsold hereunder as of the effective date hereof.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company)

Smaller reporting company

This Post-Effective Amendment No. 1 relates to the registration statement on Form S-3 (Registration No. 333-187273) of Sunshine Heart, Inc. filed with the Securities and Exchange Commission on March 15, 2013 (the "Registration Statement"), registering up to \$75,000,000 of the Company's common stock; preferred stock; warrants to purchase common stock, preferred stock or debt securities; and debt securities.

The offering pursuant to the Registration Statement has terminated. In accordance with the undertaking made by the Company in the Registration Statement to remove from registration, by means of a post-effective amendment, any of the securities registered thereunder that remain unsold at the termination of the offering, the Company hereby removes from registration the securities of the Company registered but unsold under the Registration Statement.

---

### SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Eden Prairie, State of Minnesota, on May 30, 2014.

#### SUNSHINE HEART, INC.

By: /S/ DAVID ROSA  
Name: David Rosa  
Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Name</u>	<u>Title</u>	<u>Date:</u>
<u>/s/ David Rosa</u> David Rosa	President & Chief Executive Officer (Principal Executive Officer) and Director	May 30, 2014
<u>/s/ *</u> Jeffrey Mathiesen	Chief Financial Officer (Principal Financial and Accounting Officer)	May 30, 2014
<u>/s/ *</u> Paul Buckman	Director	May 30, 2014
<u>/s/ *</u> Geoffrey Brooke	Director	May 30, 2014
<u>/s/ *</u> Gregory Waller	Director	May 30, 2014
<u>/s/ *</u> John Erb	Director	May 30, 2014
<u>/s/ *</u> Warren Watson	Director	May 30, 2014
<u>/s/ *</u> Jon Salvesson	Director	May 30, 2014

\*By: /s/ David Rosa  
David Rosa, Attorney-in-Fact