

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

Post-Effective Amendment No. 1
FORM S-8
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Titan Medical Inc.

(Exact name of registrant as specified in its charter)

Ontario, Canada

(State or other jurisdiction
of incorporation)

98-0663504

(IRS Employer
Identification No.)

**76 Berkeley Street
Toronto, Ontario, M5A 2W7
Canada**

(Address and telephone number of Registrant's principal executive offices)

**TITAN MEDICAL INC. STOCK OPTION PLAN (AMENDED AND RESTATED EFFECTIVE AS OF JUNE 9, 2021)
TITAN MEDICAL INC. SHARE UNIT PLAN (AMENDED AND RESTATED EFFECTIVE AS OF JUNE 8, 2022)
TITAN MEDICAL INC. DEFERRED SHARE UNIT PLAN (AMENDED AND RESTATED AS OF JUNE 8, 2022)
TITAN MEDICAL INC. EMPLOYEE SHARE PURCHASE PLAN DATED JUNE 8, 2022**
(Full Title of plan)

**C T Corporation System
1015 15th Street N.W., Suite 1000
Washington, DC 20005**
(Name and address of agent for service)

(202) 572-3100
(Telephone number, including area code, of agent for service)

Copies to:

**Dorsey & Whitney LLP
James Guttman
Richard Raymer
TD Canada Trust Tower
Brookfield Place
161 Bay Street, Suite 4310
Toronto, Ontario, Canada M5J 2S1
(416) 367-7376**

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

Large accelerated filer	<input type="checkbox"/>		<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

DEREGISTRATION OF UNSOLD SECURITIES

This post-effective amendment relates to Registration Statement No. 333-267447 filed September 16, 2022 (the "Registration Statement") by Titan Medical Inc. (the "Registrant") with the Securities and Exchange Commission (the "SEC") pertaining to (a) the offering by the Registrant of 16,214,640 common shares of the Registrant (the "Shares"), for issuance pursuant to (i) the exercise of options under the Titan Medical Inc. Stock Option plan, as amended and restated effective as of June 9, 2021, (ii) the exercise or settlement of awards granted under the Titan Medical Inc. Deferred Share Unit Plan, as amended and restated effective as of June 8, 2022, (iii) the exercise or settlement of awards granted under the Titan Medical Inc. Share Unit Plan, as amended and restated effective as of June 8, 2022, and (iv) the Shares issuable upon the exercise or settlement of awards granted under the Titan Medical Inc. Employee Share Purchase Plan, as of June 8, 2022 and (b) the resale of 9,322,819 Shares previously issued and underlying stock options and restricted share units previously granted under the Stock Option Plan and Share Unit Plan.

On April 3, 2023, the Registrant filed a Form 25 to report the delisting of the Shares from the NASDAQ stock exchange and to deregister the Shares under Section 12(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). The Registrant intends to file a Form 15 with the SEC, requesting suspension of reporting obligations under Section 13 and 15(d) of the Exchange Act, approximately 10 calendar days from the date hereof.

In connection with the foregoing, the Registrant has terminated any and all offerings of its securities pursuant to the Registration Statement. In accordance with an undertaking contained in the Registration Statement to remove from registration by means of this post-effective amendment any of the securities registered under the Registration Statement that remain unsold at the termination of the offering, the Registrant hereby removes from registration all of its securities registered but unsold under the Registration Statement as at the date hereof.

1

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-8 and has duly caused this Post-Effective Amendment No. 1 to the Registration Statement on Form S-8 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Lehi, State of Utah, Country of United States on April 3, 2023.

TITAN MEDICAL INC.

By: /s/ Cary G. Vance
Name: Cary G. Vance
Title: President, Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Post-Effective Amendment No. 1 to the Registration Statement has been signed by the following persons in the capacities indicated, on the 3rd day of April, 2023.

<u>Signature</u>	<u>Title</u>
<u>/s/ Cary G. Vance</u> Cary G. Vance	President, Chief Executive Officer, Director
<u>/s/ Stephen Lemieux</u> Stephen Lemieux	Chief Financial Officer
<u>* /s/ Paul Cataford</u> Paul Cataford	Chairman of the Board
<u>* /s/ Anthony J. Giovinazzo</u> Anthony J. Giovinazzo	Director
<u>* /s/ Cathy Steiner</u> Cathy Steiner	Director

* Pursuant to the Power of Attorney included as Exhibit 24.1 to the Registrant's Form S-8 filed with the U.S. Securities and Exchange Commission on September 16, 2022, Stephen Lemieux as attorney-in-fact does hereby sign this Post-Effective Amendment No. 1 to the Registration Statement on Form S-8 on behalf of each signatory.

By: /s/ Stephen Lemieux
Name: Stephen Lemieux
Title: Chief Financial Officer

2

AUTHORIZED REPRESENTATIVE

Pursuant to the requirements of Section 6(a) of the Securities Act of 1933, the undersigned has signed this Registration Statement, solely in the capacity of the duly authorized representative of Titan Medical Inc. in the United States, on April 3, 2023.

TITAN MEDICAL INC.

By: /s/ Cary G. Vance
Name: CARY G. VANCE
Title: President, Chief Executive Officer

3