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SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

INTUITIVE SURGICAL, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State of Incorporation)

77-0416458
I.R.S. Employer Identification No.)

1340 W. MIDDLEFIELD ROAD
MOUNTAIN VIEW, CA 94043
(650) 237-7000
(Address of principal executive offices)

2000 EQUITY INCENTIVE PLAN
2000 NON-EMPLOYEE DIRECTORS' STOCK OPTION PLAN
2000 EMPLOYEE STOCK PURCHASE PLAN
(Full title of the plans)

Lonnie M. Smith
President and Chief Executive Officer
Intuitive Surgical, Inc.
1340 W. Middlefield Road
Mountain View, CA 94043
(650) 237-7000
(Name, address, including zip code, and telephone number, including area code,
of agent for service)

Copy to:
Laura A. Berezin, Esq.
COOLEY GODWARD LLP
Five Palo Alto Square
3000 El Camino Real
Palo Alto, CA 94306
(650) 843-5000

CALCULATION OF REGISTRATION FEE

TITLE OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED (2)	PROPOSED MAXIMUM OFFERING PRICE PER SHARE (1)	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE (1)	AMOUNT OF REGISTRATION FEE
Stock Options and Common Stock, par value \$.001 per share	8,435,110 shares	\$2.273333 - \$15.21875	\$107,574,758.96	\$28,399.74

(1) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) and (h)(1) under the Securities Act of 1933, as amended. The offering price per share and aggregate offering price for the unissued stock options and Common Stock are based upon the average of the high and low prices of Registrant's Common Stock on August 9, 2000 as reported on the Nasdaq National Market. The offering price per share and aggregate offering price for the outstanding stock options are based upon the exercise prices of such options. The following chart illustrates the calculation of the registration fee:

TITLE OF SHARES	NUMBER OF SHARES	OFFERING PRICE PER SHARE	AGGREGATE OFFERING PRICE
Shares issuable pursuant to outstanding stock options pursuant to the 2000 Equity Incentive Plan	1,606,520	\$ 2.273333	\$ 3,652,154.90
Shares issuable pursuant to unissued stock options pursuant to the 2000 Equity Incentive Plan	5,528,590	\$ 15.21875	\$ 84,138,229.06
Shares issuable pursuant to unissued stock options pursuant to the 2000 Non-Employee Directors' Stock Option Plan	300,000	\$ 15.21875	\$ 4,565,625.00
Shares issuable pursuant to the 2000 Employee Stock Purchase Plan	1,000,000	\$ 15.21875	\$ 15,218,750.00
MAXIMUM AGGREGATE OFFERING PRICE	8,435,110		\$107,574,758.96

(2) This Registration Statement shall cover any additional shares of Common Stock which become issuable under the plans set forth herein by reason of any stock dividend, stock split, recapitalization or any other similar transaction without receipt of consideration which results in an increase in the number of shares of the Registrant's outstanding Common Stock.

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: As soon as practicable after this registration statement becomes effective.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The following documents filed by Intuitive Surgical, Inc. (the "Company") with the Securities and Exchange Commission are incorporated by reference into this Registration Statement:

(a) The Company's prospectus filed pursuant to Rule 424(b) under the Securities Act of 1933, as amended (the "Securities Act"), on June 14, 2000 (No. 333-33016).

(b) The description of the Company's Common Stock which is contained in the Registration Statement on Form 8-A filed on May 26, 2000, under the Securities Exchange Act of 1934 (the "Exchange Act"), including any amendment or report filed for the purpose of updating such description.

(c) All reports and other documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part of this registration statement from the date of the filing of such reports and documents.

DESCRIPTION OF SECURITIES

Not Applicable.

INTERESTS OF NAMED EXPERTS AND COUNSEL

The legality of the Common Stock offered hereby will be passed upon for the Company by Cooley Godward LLP, Palo Alto, California. As of the date of this Registration Statement, certain partners and associates of Cooley Godward LLP own an aggregate of 43,153 shares of the Company's Common Stock through an investment partnership.

INDEMNIFICATION OF DIRECTORS AND OFFICERS

As permitted by Delaware law, the Company's Amended and Restated Certificate of Incorporation provides that its directors will not be personally liable to the Company or its stockholders for monetary damages for a breach of their fiduciary duty as a director, except for liability:

- - for any breach of duty of loyalty to the Company or to its stockholders;
- - for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- - under Section 174 of the Delaware General Corporation Law; or
- - for any transaction from which the director derived an improper personal benefit.

The Company's Amended and Restated Certificate of Incorporation and By-laws further provide that it must indemnify its directors and executive officers and may indemnify its other officers and employees and agents to the fullest extent permitted by Delaware law. The Company believes that indemnification under its Amended and Restated Certificate of Incorporation and By-laws covers negligence and gross negligence on the part of indemnified parties.

The Company has entered into indemnification agreements with each of its directors and officers. These agreements, among other things, require the Company to indemnify each director and officer for some expenses including attorneys' fees, judgments, fines and settlement amounts incurred by any of these persons in any action or proceeding, including any action by or in the right of the Company, arising out of person's services as a director or officer, any subsidiary of the Company or any other company or enterprise to which the person provides services at the Company's request.

The Company has an insurance policy covering its officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act or otherwise.

EXEMPTION FROM REGISTRATION CLAIMED

Not applicable.

EXHIBITS

EXHIBIT
NUMBER

DESCRIPTION OF DOCUMENT

4.1*	Amended and Restated Certificate of Incorporation of the Company.
4.2*	Bylaws of the Company.
4.3*	Specimen Stock Certificate.
4.4*	Amended and Restated Investor Rights Agreement dated March 31, 1999.
5.1	Opinion of Cooley Godward LLP.
23.1	Consent of Ernst & Young LLP, independent auditors.
23.2	Consent of Cooley Godward LLP is contained in Exhibit 5.1 to this Registration Statement.
24.1	Power of Attorney is contained on the signature page.
99.1*	2000 Equity Incentive Plan.
99.2*	2000 Non-Employee Directors' Stock Option Plan.
99.3*	2000 Employee Stock Purchase Plan.

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* Incorporated by reference to the Company's Registration Statement on Form S-1, as amended (File No. 333-33016), originally filed with the SEC on March 22, 2000.

UNDERTAKINGS

1. The undersigned registrant hereby undertakes:

(a) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) (ss. 230.424(b) of this chapter) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (a)(i) and (a)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the issuer pursuant to section 13 or section 15(d) of the Exchange Act that are incorporated by reference herein.

(b) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

2. The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

3. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Mountain View, State of California, on August 11, 2000.

INTUITIVE SURGICAL, INC.

By: /s/ LONNIE M. SMITH

 Lonnie M. Smith
 President and Chief Executive Officer
 (Principal Executive Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Lonnie M. Smith and Susan K. Barnes and each or any one of them, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

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.

SIGNATURE -----	TITLE -----	DATE -----
/s/ LONNIE M. SMITH ----- Lonnie M. Smith	President, Chief Executive Officer and Director (Principal Executive Officer)	August 11, 2000
/s/ SUSAN K. BARNES ----- Susan K. Barnes	Vice President, Finance, Chief Financial Officer and Assistant Secretary (Principal Financial and Accounting Officer)	August 11, 2000
/s/ SCOTT S. HALSTED ----- Scott S. Halsted	Director	August 11, 2000
/s/ RUSSELL C. HIRSCH ----- Russell C. Hirsch, M.D., PH.D.	Director	August 11, 2000
/s/ RICHARD J. KRAMER ----- Richard J. Kramer	Director	August 11, 2000
/s/ JAMES A. LAWRENCE ----- James A. Lawrence	Director	August 11, 2000
/s/ ALAN J. LEVY ----- Alan J. Levy, Ph.D.	Director	August 11, 2000
/s/ FREDERIC H. MOLL ----- Frederic H. Moll, M.D.	Director	August 11, 2000

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5.1	Opinion of Cooley Godward LLP.
23.1	Consent of Ernst & Young LLP, independent auditors.
23.2	Consent of Cooley Godward LLP is contained in Exhibit 5.1 to this Registration Statement.
24.1	Power of Attorney is contained on the signature page.
99.1*	2000 Equity Incentive Plan.
99.2*	2000 Non-Employee Directors' Stock Option Plan.
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* Incorporated by reference to the Company's Registration Statement on Form S-1,
as amended (File No. 333-33016), originally filed with the SEC on March 22,
2000.

[COOLEY GODWARD LLP LETTERHEAD]

August 11, 2000

Intuitive Surgical, Inc.
1340 W. Middlefield Road
Mountain View, CA 94043

Ladies and Gentlemen:

You have requested our opinion with respect to certain matters in connection with the filing by Intuitive Surgical, Inc. (the "Company") of a Registration Statement on Form S-8 (the "Registration Statement") with the Securities and Exchange Commission covering the offering of up to 8,435,110 shares of the Company's Common Stock, \$.001 par value, (the "Shares") pursuant to its 2000 Equity Incentive Plan, 2000 Non-Employee Directors' Stock Option Plan and 2000 Employee Stock Purchase Plan (collectively, the "Plans").

In connection with this opinion, we have examined the Registration Statement and related Prospectus, your Certificate of Incorporation and By-laws, as amended, and such other documents, records, certificates, memoranda and other instruments as we deem necessary as a basis for this opinion. We have assumed the genuineness and authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies thereof, and the due execution and delivery of all documents where due execution and delivery are a prerequisite to the effectiveness thereof.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued in accordance with the Plans, the Registration Statement and related Prospectus, will be validly issued, fully paid, and nonassessable (except as to shares issued pursuant to certain deferred payment arrangements, which will be fully paid and nonassessable when such deferred payments are made in full).

We consent to the filing of this opinion as an exhibit to the Registration Statement.

Very truly yours,

COOLEY GODWARD LLP

By: /s/ LAURA A. BEREZIN

Laura A. Berezin

cc: Lonnie M. Smith

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2000 Equity Incentive Plan, the 2000 Non-employee Directors' Stock Option Plan, and the 2000 Employee Stock Purchase Plan of Intuitive Surgical, Inc., of our report dated March 8, 2000, with respect to the consolidated financial statements of Intuitive Surgical, Inc. for the year ended December 31, 1999 included in its Registration Statement (Form S-1 No. 333-33016), filed with the Securities and Exchange Commission.

/s/ ERNST & YOUNG LLP

Palo Alto, California
August 10, 2000