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File No. 333-36152

PROSPECTUS SUPPLEMENT NO. 5
DATED MAY 25, 2001
TO
PROSPECTUS DATED MAY 30, 2000

INHALE THERAPEUTIC SYSTEMS, INC.

\$230,000,000
OF
5.0% CONVERTIBLE SUBORDINATED NOTES
DUE FEBRUARY 8, 2007
AND
5,996,610 SHARES OF COMMON STOCK
ISSUABLE UPON CONVERSION OF THE NOTES

This prospectus supplement supplements the prospectus dated May 30, 2000 of Inhale Therapeutic Systems, Inc. relating to the public offering and sale by selling security holders described below. This prospectus supplement contains information on ownership of principal amount of notes beneficially owned and offered and shares of our common stock issuable upon conversion of the notes. This prospectus supplement should be read in conjunction with the prospectus, and this prospectus supplement is qualified by reference to the prospectus, except to the extent that the information provided by this prospectus supplement supersedes the information contained in the prospectus.

SEE "RISK FACTORS" BEGINNING ON PAGE 3 OF THE PROSPECTUS TO READ ABOUT FACTORS YOU SHOULD CONSIDER BEFORE BUYING THE NOTES OR OUR COMMON STOCK.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The table and related footnotes on pages 41, 42, 43 and 44 of the prospectus setting forth information concerning the selling security holders is amended by the addition of the following information to that table:

SELLING SECURITY HOLDER	PRINCIPAL AMOUNT OF NOTES BENEFICIALLY OWNED AND OFFERED (1)	COMMON STOCK ISSUABLE UPON CONVERSION OF THE NOTES (1)(2)	COMMON STOCK OFFERED(1)(2)	COMMON STOCK OWNED AFTER COMPLETION OF THE OFFERING
Merrill Lynch Pierce Fenner & Smith Inc.	1,097,000	28,601	28,601	-

(1) Amounts indicated may be in excess of the total amount registered due to sales or transfers exempt from the registration requirements of the Securities Act since the date upon which the selling holders provided to us in the information regarding their notes.

(2) Inhale's Board of Directors declared a two-for-one split of the outstanding shares of our common stock for all holders of record as of the close of business on August 1, 2000 which was effected in the form of a stock dividend resulting in a reduction by one-half of the conversion price per share and an increase in the number of shares of our common stock issuable upon conversion of the notes. As of August 2, 2000 the notes became convertible at a conversion price of \$38.355 per share. All stock numbers in this supplement have been adjusted to give effect to this two-for-one stock split.

Additional information regarding selling holders will be provided by amendment or supplement to this prospectus.

Information concerning the selling holders may change from time to time and any changed information will be set forth in supplements to this prospectus if and when necessary. In addition, the conversion rate and therefore, the number of shares of common stock issuable upon conversion of the notes, is subject to adjustment under certain circumstances. Accordingly, the aggregate principal amount of notes and the number of shares of common stock into which the notes are convertible may increase or decrease.

The date of this prospectus supplement is May 25, 2001.