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As filed with the Securities and Exchange Commission on February 14, 2005.

Registration No.

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

FORM S-3

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Merit Medical Systems, Inc.
(Exact name of registrant as specified in its charter)

Utah
(State or other jurisdiction of incorporation or organization)

87-0447695
(I.R.S. Employer Identification Number)

1600 West Merit Parkway, South Jordan, Utah 84095, (801) 253-1600
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Kent W. Stanger
Chief Financial Officer
1600 West Merit Parkway, South Jordan, Utah 84095
(801) 253-1600

Copies to:

Brian G. Lloyd
Stoel Rives LLP
201 South Main Street, Suite 1100, Salt Lake City, Utah 84111
(801) 328-3131
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

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 delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. ☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Unit	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock	100,000	$13.91	$1,391,000	$164

(1) Pursuant to Rule 416 of the Securities Act of 1933, this registration statement covers a presently indeterminate number of shares of common stock issuable upon the occurrence of a stock split, stock dividend, or other similar transaction.

(2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) under the Securities Act of 1933, as amended, based upon the average of the high and low prices for the common stock of the registrant as reported by the Nasdaq National Market on February 11, 2005.

The registrant hereby amends this registration statement on the date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on the date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information contained in this prospectus is not complete and may be changed. The selling stockholders may not sell these securities until the Registration Statement filed with the Securities and Exchange Commission is effective.

PROSPECTUS

Merit Medical Systems

100,000 Shares of Common Stock

This prospectus covers the offer and sale of up to 100,000 shares of our common stock, no par value, issuable upon the exercise of outstanding warrants to purchase our common stock. All of the shares that may be offered hereunder are to be offered and sold by persons who are existing security holders and identified in the section of this prospectus entitled "Selling Stockholders." Pursuant to Rule 416 of the Securities Act of 1933, as amended, this prospectus and the related registration statement cover a presently indeterminate number of shares of common stock issuable upon the occurrence of a stock split, stock dividend or other similar transaction.

We will not receive any of the proceeds from the sale of the shares offered in this prospectus. Our common stock is listed on the Nasdaq National Market under the symbol "MMSI." On February 11, 2005, the last reported sale price for our common stock as reported on the Nasdaq National Market was $14.12 per share.

Our executive offices are located at 1600 West Merit Parkway, South Jordan, Utah 84095, and our telephone number is (801) 253-1600.

Carefully consider the risk factors beginning on page 3 of this prospectus before investing in the shares being offered with this prospectus.

This prospectus shall not constitute an offer to sell, or the solicitation of an offer to buy, in any state in which the offer or sale would be unlawful prior to or absent qualification under the securities laws of that state.

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

The date of this prospectus is February 14, 2005.

You should rely only on the information contained in, or incorporated by reference into, this prospectus and in any prospectus supplement. We have not authorized anyone to provide you with different information. The selling stockholders are not permitted to make an offer or sale of these shares in any state where the offer or sale is not permitted. You should not assume that the information contained in, or incorporated by reference into, this prospectus is accurate as of any date other than the date on the front of this prospectus.

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RISK FACTORS

Before you invest in the securities described in this prospectus, you should be aware that the investment involves the assumption of various risks. You should consider carefully the risk factors described below together with all of the other information included in this prospectus before you decide to purchase any shares of our common stock.

We may be unable to compete in our markets, particularly if there is a significant change in relevant procedures or technology or an increase in competitive pressures.

The market for each of our existing and potential products is highly competitive. We face competition from several companies, many of which are larger, better established, have greater financial, technical and other resources and have greater market presence. Such resources and market presence may enable our competitors to more effectively market competing products or market competing products at reduced prices in order to gain market share. Further, such resources and market presence may enable our competitors to market products beyond the scope of our current business strategy.

Our ability to compete successfully is dependent, in part, upon our ability to respond effectively to changes in technology and procedures, as well as to develop and market new products that achieve significant market acceptance. Competing companies with substantially greater resources than ours are actively engaged in research and development of diagnostic and interventional methods, treatments and procedures that could limit the market for our products and eventually make certain products obsolete. A reduction in the demand for a significant number of our products, or a few key products, could have a material adverse effect on our business and financial condition. Our inability to develop or introduce new products may also have an adverse effect on our ability to compete effectively.

Our products may be subject to recall or product liability claims.

Our products are used in connection with surgical procedures and in other medical contexts in which it is important that those products function with precision and accuracy. If our products do not function as designed, or are designed improperly, we may voluntarily withdraw such products from the market or be required to withdraw them by order of the FDA. In addition, if medical personnel or their patients suffer injury as a result of any failure of our products to function as designed, or a design is inappropriate, we may be subject to lawsuits seeking significant compensatory and punitive damages. Any product recall or lawsuit seeking significant monetary damages may have a material adverse effect on our business or financial condition.

Substantially all of our products are backed by a limited warranty for returns due to defects in quality and workmanship. We maintain a reserve for these future returned products, but the actual costs of such returns may significantly exceed the reserve, which could have a material adverse effect on our operations.

We may be unable to successfully manage growth, particularly if accomplished through acquisitions.

We may attempt to acquire businesses, assets, products, or technologies that we believe will be a strategic complement to our business model. Successful implementation of our business model will require that we effectively manage any associated growth. To manage growth effectively, our management will need to continue to implement changes in certain aspects of our business, enhance our information systems and operations to respond to increased demand, attract and retain qualified personnel and develop, train and manage an increasing number of management-level and other employees. Growth could place an increasing strain on our management, financial, product design, marketing, distribution and other resources, and we could experience operating difficulties. Any failure to manage growth effectively could have a material adverse effect on our results of operations and

financial condition. These acquisitions may also require significant management attention that would otherwise be available for ongoing development of our business. Further, we may never realize the anticipated benefits of any acquisition. We may also make dilutive issuances of equity securities, incur debt or experience a decrease in the amount of cash available for our operations, or incur contingent liabilities in connection with any future acquisitions.

To the extent that we grow through acquisition, we will face the additional challenges of integrating our current operations, culture, information management systems and other characteristics with that of the acquired entity. We may incur significant expenses in connection with negotiating and consummating one or more transactions, and we may inherit liabilities in connection with the acquisition as a result of our failure to conduct adequate due diligence. We may not realize competitive advantages, synergies or other benefits anticipated in connection with such acquisition(s). If we do not adequately identify targets for, or manage issues related to our future acquisitions, such acquisitions may have a negative adverse effect on our business and financial results.

A significant adverse change in, or failure to comply with, governing regulations could adversely affect our business.

Substantially all of our products are "devices," as defined in the Federal Food, Drug and Cosmetic Act, and the manufacture, distribution, record keeping, labeling and advertisement of our products is subject to regulation by the Food and Drug Administration (the "FDA") in the United States and comparable regulatory agencies in various foreign countries in which our products are manufactured, distributed, labeled, offered or sold. Further, we are subject to continual review and periodic inspections at our current facilities with respect to the FDA's current Good Manufacturing Practices and similar requirements of foreign countries. Our business and financial condition could be adversely affected if we are found to be out of compliance with governing regulations. In addition, if such regulations are amended to become more restrictive and costly to comply with, the costs of compliance could adversely affect our business and financial condition.

While we believe that we currently have adequate internal control procedures in place, we are still exposed to potential risks from recent legislation requiring companies to evaluate controls under section 404 of the Sarbanes-Oxley Act of 2002.

We are currently evaluating our internal controls systems in order to allow management to report on, and our independent registered public accounting firm to attest to, our internal controls, as required by Section 404 of the Sarbanes-Oxley Act. We are performing the system and process evaluation and testing required in an effort to comply with the management certification and auditor attestation requirements of Section 404. As a result, we are incurring additional expenses and a diversion of management's time. While we anticipate being able to fully implement the requirements relating to internal controls and all other aspects of Section 404 in a timely fashion, we cannot be certain as to the timing of completion of our evaluation, testing and remediation actions or the impact of the same on our operations since there is no precedent available by which to measure compliance adequacy. If we are not able to implement the requirements of Section 404 in a timely manner, we might be subject to investigation by regulatory authorities and a loss of public confidence in our internal controls, which could adversely affect our financial results and the market price of our common stock.

A significant portion of our revenues is derived from a few products and procedures.

A significant portion of our revenues are attributable to sales of our inflation devices. During the year ended December 31, 2003, sales of our inflation devices (including inflation devices sold in custom kits) accounted for approximately 33% of our total revenues. During the three and nine-month periods ended September 30, 2004, sales of our inflation devices (including inflation devices sold in custom kits) accounted for approximately 34% and 33%, respectively, of our total revenues. Any material

decline in market demand for our inflation devices could have an adverse effect on our business and financial condition.

These products have accounted for a majority of our historical revenues and are designed for use in connection with a few related medical procedures, including angiography, angioplasty and stent placement procedures. If subsequent developments in medical technology or drug therapy make such procedures obsolete, or alter the methodology of such procedures to eliminate the usefulness of our products, we may experience a material decrease in demand for our products and experience deteriorating financial performance.

Termination of relationships with our suppliers, or failure of such suppliers to perform, could disrupt our business.

We rely on raw materials, component parts, finished products, and services supplied by third parties. For example, substantially all of our products are sterilized by two entities. In addition, some of our products are manufactured or assembled by third parties. If a supplier of significant raw materials, component parts, finished goods or services were to terminate its relationship with us, or otherwise cease supplying raw materials, component parts, finished goods or services consistent with past practice, our ability to meet our obligations to our customers may be disrupted or our costs could increase. A disruption with respect to numerous products, or with respect to a few significant products, could have a material adverse effect on our business and financial condition.

We may be unable to protect our proprietary technology or our technology may infringe on the proprietary technology of others.

Our ability to remain competitive is dependent, in part, upon our ability to prevent other companies from using proprietary technology incorporated into our products. We seek to protect our technology through a combination of patents and trade secrets, as well as license, proprietary know-how and confidentiality agreements. We may be unable, however, to prevent others from using our proprietary information, or to use such information ourselves, for numerous reasons, including the following:

- Our issued patents may not be sufficiently broad to prevent others from copying our proprietary technologies;
- Our issued patents may be challenged by third parties and deemed to be overbroad or unenforceable;
- Our products may infringe on the patents of others, requiring us to alter or discontinue the manufacture or sale of such products;
- Costs associated with seeking enforcement of our patents against infringement, or defending ourselves against allegations of infringement, may be significant;
- Our pending patent applications may not be granted for various reasons, including overbreadth or conflict with an existing patent; and
- Other persons may independently develop, or have developed, similar or superior technologies.

Failure to obtain or maintain the regulatory approvals required to market and sell our products, could disrupt our business.

We are subject to regulation by government agencies in the United States and international markets with respect to the manufacture, packaging, labeling, advertising, promotion, distribution and sale of our products. For instance, most of our products are subject to FDA clearance and approval prior to marketing in the United States for commercial use. We are also subject to similar approvals for international markets. The process of obtaining and maintaining necessary regulatory approvals and

clearances is expensive and time-consuming. If we do not receive required regulatory approvals or clearance to market our products domestically and internationally, or if any approvals we have received are revoked or terminated, we may not be able to develop or commercialize our products, which could disrupt our business.

We are dependent upon key personnel.

The loss of one or more key members of our management team could affect our ability to successfully implement our business strategy. Our success, if achieved, will be dependent on key management personnel, including Fred P. Lampropoulos, our Chairman of the Board, President and Chief Executive Officer. Mr. Lampropoulos is not subject to any agreement prohibiting his departure, and we do not maintain key-man life insurance with respect to his life. The loss of Mr. Lampropoulos, or of certain other key management personnel, could materially adversely affect our business and operations. Our success will also depend, among other factors, on the successful recruitment and retention of key personnel.

Limits on reimbursement imposed by governmental and other programs may adversely affect our business.

The cost of a significant portion of medical care is funded by governmental, social security or other insurance programs. Limits on reimbursement imposed by those programs may adversely affect the ability of hospitals and others to purchase our products. In addition, limitations on reimbursement for procedures that use our products could adversely affect our sales.

Fluctuations in euro exchange rates may negatively affect our financial results.

Fluctuations in the rate of exchange between the Euro and the U.S. Dollar could have a negative impact on our margins and financial results. For example, during 2003, the exchange rate between the Euro and U.S. Dollar resulted in an increase of the Company's gross revenues of $2.4 million and 0.3% in gross profit. For the three months ended September 30, 2004, the exchange rate resulted in an increase of gross revenues of $326,393 and approximately 0.2% increase in gross profit.

For the three months ended September 30, 2004, approximately $4.2 million, or 11.8%, of our sales were denominated in Euros. If the rate of exchange between the Euro and the U.S. Dollar declines, we may not be able to increase the prices that we charge our European customers for products whose prices are denominated in Euros. We may be unable to, or elect not to enter into, hedging transactions that could mitigate the effect of declining exchange rates. As a result, as the rate of exchange between the Euro and the U.S. Dollar declines, our financial results may be negatively impacted.

The market price of our common stock has been, and may continue to be, volatile.

The market price of our common stock has been, and may continue to be, highly volatile for various reasons, including the following:

- Our announcement of acquisitions of businesses, assets, products or technologies;
- Our announcement of new products or technical innovations, or similar announcements by our competitors;
- Development of new procedures that use, or do not use, our technology;
- Quarter-to-quarter fluctuations in our operating or financial results;
- Claims involving potential infringement of patents and other intellectual property rights;
- Analyst and other projections or recommendations regarding our common stock or medical technology stocks generally;

- Any restatement of our financial statements or any investigation by the SEC or another regulatory authority; and
- A general decline, or rise, of stock prices in the capital markets.

We are subject to work stoppage, transportation and related risks.

We manufacture our products at various locations in the United States and Ireland and sell our products throughout the United States, Europe and other parts of the world. We depend on third-party transportation companies to deliver supplies necessary to manufacture our products from vendors to our various facilities and to move our products to customers, operating divisions and other subsidiaries located within and outside the United States. Our manufacturing operations, and the operations of the transportation companies on which our operations depend, may be adversely affected by natural disasters and significant human events, such as war, terrorist attack, riot, strike, slowdown or similar event. Any disruption in our manufacturing or transportation could materially adversely affect our ability to meet customer demands or conduct our operations.

FORWARD-LOOKING STATEMENTS

This prospectus contains various forward-looking statements. These statements can be identified by the use of the forward-looking words "anticipate," "estimate," "project," "likely," "believe," "intend," "expect" or similar words. These statements discuss future expectations, contain projections regarding future developments, operations, or financial conditions, or state other forward-looking information. When considering such forward-looking statements, you should keep in mind the risk factors noted in the previous section and other cautionary statements throughout this prospectus and our periodic filings with the SEC that are incorporated herein by reference. You should also keep in mind that all forward-looking statements are based on management's existing beliefs about present and future events outside of management's control and on assumptions that may prove to be incorrect. If one or more risks identified in this prospectus or any applicable filings materializes, or any other underlying assumptions prove incorrect, our actual results may vary materially from those anticipated, estimated, projected, or intended.

USE OF PROCEEDS

All net proceeds from any sale of offered shares will be received by the selling stockholders selling the offered shares. We will not receive any proceeds from the sale of any of the offered shares.

DILUTION

As of January 31, 2005, there were outstanding warrants, options and conversion rights to purchase up to 4,363,497 shares of common stock. The existence of those options, warrants and conversions rights may hinder future equity offerings by us, and the exercise of those warrants, options and conversion rights may have an adverse effect on the prevailing market price of the common stock. Furthermore, the holders of those options, warrants and conversion rights may exercise them at a time when we would otherwise be able to obtain additional equity capital on terms more favorable to us.

SELLING STOCKHOLDERS

The shares being offered pursuant to this prospectus are being offered by the principal stockholders of MedSource Packaging Concepts LLC, a packager of custom procedure trays with sterile and non-sterile medical devices for use in the medical industry. On November 17, 2004, we issued to the Medsource stockholders warrants to purchase 100,000 shares of our common stock in connection with our purchase of certain assets and assumption of certain liabilities of MedSource. The warrants permit the holder to acquire shares of common stock at an exercise price of $10.1275 per share at any time between November 17, 2004 and November 17, 2009. The warrants include standard anti-dilution provisions pursuant to which the exercise price and number of shares issuable upon exercise of the warrants are adjusted proportionately in the event of a stock split, stock dividend, recapitalization or similar transaction. In connection with the asset purchase transaction, we agreed to register under the Securities Act the resale of the common stock issuable upon exercise of the warrants. Prior to the offering, neither MedSource nor its principal stockholders owned any shares of common stock other than the shares of common stock issuable upon exercise of the warrants. All 100,000 shares of common stock are offered in this offering, but we cannot assure you that any of those shares will be sold.

PLAN OF DISTRIBUTION

The selling stockholders and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of the offered shares on any stock exchange, market or trading facility on which our shares of common stock are traded or in private transactions. These sales may be at fixed or negotiated prices. The selling stockholders may use any one or more of the following methods when selling the offered shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange or market distribution in accordance with the rules of the applicable exchange or market;
- privately negotiated transactions;
- settlement of short sales;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- through the writing or settlement of options or other hedging transactions, such as swaps or derivatives, whether through an options exchange or otherwise;
- sales in the over-the-counter market;
- a combination of any those methods of sale; or

- any other method permitted pursuant to applicable law.

Broker-dealers engaged by the selling stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchase of shares, from the purchaser) in amounts to be negotiated. The selling stockholders do not expect these commissions and discounts relating to its sales of shares to exceed what is customary in the types of transactions involved.

In connection with the sale of the offered shares or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver the offered shares to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling stockholders and any broker-dealers or agents that are involved in selling the shares offered under this prospectus may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. The selling stockholders have informed us that they do not have any agreement or understanding, directly or indirectly, with any person to distribute the common stock.

We are required to pay certain fees and expenses incurred by us incident to the registration of the offered shares. We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

Because the selling stockholders may be deemed to be "underwriters" within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act. In addition, any shares of common stock covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. The selling stockholders have advised us that they have not entered into any agreements, understandings or arrangements with any underwriter or broker-dealer regarding the sale of the offered shares. There is no underwriter or coordinating broker acting in connection with the proposed sale of the offered shares by the selling stockholders.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale shares may not simultaneously engage in market making activities with respect to our common stock for a period of two business days prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of shares of our common stock by the selling stockholders or any other person.

We will make copies of this prospectus available to the selling stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale.

DETERMINATION OF OFFERING PRICE

The offering price of the shares of common stock offered by this prospectus is being determined by the selling stockholders on a transaction-by-transaction basis based upon factors that the selling

stockholder considers appropriate. The offering prices determined by the selling stockholders may, or may not, relate to a current market price but should not, in any case, be considered an indication of the actual value of the shares of common stock. We do not have any influence over the price at which any selling stockholders offer or sell the shares of common stock offered by this prospectus.

LEGAL MATTERS

The validity of the shares being offered hereby is being passed upon for us by Stoel Rives LLP.

EXPERTS

The consolidated financial statements and the related financial statements schedule incorporated in this prospectus by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2003 have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference, which report expresses an unqualified opinion and includes an explanatory paragraph relating to the adoption of Statement of Financial Accounting Standards No. 143, *Goodwill and Other Intangible Assets,* in 2002, and have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

INDEMNIFICATION

Our articles of incorporation provide that we shall indemnify our officers, directors, agents, incorporators and other persons against liabilities incurred by them that result from their acts that are performed in furtherance of our business to the full extent permitted by the laws of the state of Utah. Our bylaws director, officer, incorporator, or other person to the fullest extent permitted by the Utah Revised Business Corporation Act. Our bylaws provide that, to the full extent permitted by law, we shall indemnify any director or officer or former director or officer of the Merit, or any person who may have served at Merit's request as a director or officer of another corporation in which Merit owns shares, or of which Merit is a creditor, against expenses actually and reasonably incurred by him or her, in connection with the defense of any action, suit or proceeding, civil or criminal, in which he or she is made a party by reason of being or having been such director or officer, except in relation to matters as to which he or she shall be adjudged in such action, suit or proceeding to be liable for negligence or misconduct in the performance of duty; and to make such other indemnification as shall be authorized by our shareholders.

As a result of the indemnification provisions described about and contained in the Utah Revised Business Corporations Act, subject to certain limitations in the Utah Revised Business Corporation Act, we may be permitted or compelled to provide indemnification and advancement of expenses to our directors, officers, agents, and employees when they are made parties to an investigation or legal action in connection with services performed at our request, including when such persons are alleged to have violated the Securities Act. Insurance purchased with respect to such persons may also cover expenses or other liabilities associated with an allegation of violations of the Securities Act.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to our directors, officers and controlling persons of pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the SEC 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.

The rights of indemnification described above are not exclusive of any other rights of indemnification to which the persons indemnified may be entitled under any bylaw, agreement, vote of stockholders or directors or otherwise. In addition to the foregoing, the Registrant maintains insurance through a commercial carrier against certain liabilities which may be incurred by its directors and officers.

The foregoing description is necessarily general and does not describe all details regarding the indemnification of officers, directors or controlling persons of the Registrant.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

As permitted by SEC rules, this prospectus does not contain all of the information in the registration statement of which this prospectus is a part or the exhibits to the registration statement. The SEC permits us to incorporate by reference into this prospectus information filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, except as superseded or modified by information contained directly in this prospectus or in a subsequently filed document that also is (or is deemed to be) incorporated into this prospectus by reference.

This prospectus incorporates by reference the documents set forth below that we (File No. 000-18592) have previously filed with the SEC pursuant to the Exchange Act. These documents contain important information about the Company and its financial condition.

(a) Our Annual Report on Form 10-K for the year ended December 31, 2003, filed with the SEC on March 15, 2004.

(b) Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2004, filed with the SEC on May 10, 2004.

(c) Our Quarterly Report on Form 10-Q for the quarter ended June 30, 2004, filed with the SEC on August 9, 2004, as amended by Amendment No. 1 to Quarterly Report on Form 10-Q/A filed with the SEC on October 4, 2004.

(d) Our Quarterly Report on Form 10-Q for the quarter ended September 30, 2004, filed with the SEC on November 9, 2004.

(e) Our Current Report on Form 8-K filed with the SEC on October 13, 2004.

(f) Our Current Report on Form 8-K filed with the SEC on October 26, 2004.

(g) Our Current Report on Form 8-K filed with the SEC on November 23, 2004.

(h) The description of our shares of common stock contained in our Registration Statement on Form 8-A, SEC File No. 000-18592, filed with the SEC pursuant to the Exchange Act, including any amendment or report filed under the Exchange Act for the purpose of updating such description.

We hereby incorporate by reference all reports and other documents filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and prior to the termination of this offering.

Statements contained in this prospectus regarding the contents of any agreement or other document filed as an exhibit to the registration statement or a document incorporated by reference into the prospectus are not necessarily complete, and in each instance we qualify each of these statements in all respects by the reference to the full agreement.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly, and current reports, proxy statements, and other information with the SEC. You may read and copy any reports, statements, or other information that we file at the SEC's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. The SEC also maintains an Internet site (http://www.sec.gov) that makes available to the public reports, proxy statements, and other information regarding issuers, such as us, that file electronically with the SEC. Our Internet website is http://www.merit.com. Information contained on our website is not a part of this prospectus.

In addition, we will provide, without charge, to each person to whom this prospectus is delivered, upon written or oral request of any such person, a copy of any or all of our annual, quarterly and current reports, proxy statements and other information we have filed with the SEC (other than exhibits to such documents which are not specifically incorporated by reference in such documents or portions of such documents subject to confidential treatment requests). Requests for these copies should be directed to Chief Financial Officer, 1600 West Merit Parkway, South Jordan, Utah 84095, (801) 253-1600.

Our shares of common stock are quoted on the Nasdaq National Market. Reports, proxy statements and other information concerning Merit can be inspected and copied at the Public Reference Room of the National Association of Securities Dealers, 1735 K Street, N.W., Washington, D.C. 20006.

We have not authorized any dealer, salesperson or other person to give any information or represent anything not contained in this prospectus. This prospectus does not offer to sell or buy any securities in any jurisdiction where it is unlawful. The information in this prospectus is current only as of the date hereof.

100,000 Shares of
Common Stock

MERIT MEDICAL SYSTEMS, INC.

PROSPECTUS

February 14, 2005

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the various expenses of the offering, sale and distribution of the offered securities being registered pursuant to this registration statement (the "Registration Statement"). All of the expenses listed below will be borne by the Company. All of the amounts shown are estimates except the SEC registration fees.

Item	Amount
SEC Commission registration fees	$ 157
Accounting fees and expenses	10,000
Legal fees and expenses	10,000
Blue Sky fees and expenses	1,000
Miscellaneous expenses	1,000
Total	$ 22,157

Item 15. Indemnification of Directors and Officers.

We are a Utah corporation. Section 16-10a-902 of the Utah Revised Business Corporation Act (the "Revised Act") provides that a corporation may indemnify any individual who was, is, or is threatened to be made a named defendant or respondent (a "Party") in any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative and whether formal or informal (a "Proceeding"), because he or she is or was a director of the corporation or, while a director of the corporation, is or was serving at its request as a director, officer, partner, trustee, employee, fiduciary or agent of another corporation or other person or of an employee benefit plan (an "Indemnifiable Director"), against any obligation incurred with respect to a Proceeding, including any judgment, settlement, penalty, fine or reasonable expenses (including attorneys' fees), incurred in the Proceeding if his or her conduct was in good faith, he or she reasonably believed that his or her conduct was in, or not opposed to, the best interests of the corporation, and, in the case of any criminal Proceeding, had no reasonable cause to believe such conduct was unlawful; provided, however, that pursuant to Subsections 902(4)-(5): (i) indemnification under Section 902 in connection with a Proceeding by or in the right of the corporation is limited to payment of reasonable expenses (including attorneys' fees) incurred in connection with the Proceeding and (ii) the corporation may not indemnify an Indemnifiable Director in connection with a Proceeding by or in the right of the corporation in which the Indemnifiable Director was adjudged liable to the corporation, or in connection with any other Proceeding charging that the Indemnifiable Director derived an improper personal benefit, whether or not involving action in his or her official capacity, in which Proceeding he or she was adjudged liable on the basis that he or she derived an improper personal benefit.

Section 16-10a-903 of the Revised Act provides that, unless limited by its articles of incorporation, a corporation shall indemnify an Indemnifiable Director who was successful, on the merits or otherwise, in the defense of any Proceeding, or in the defense of any claim, issue or matter in the Proceeding, to which he or she was a Party because he or she is or was an Indemnifiable Director of the corporation, against reasonable expenses (including attorneys' fees) incurred in connection with the Proceeding or claim with respect to which he or she has been successful.

In addition to the indemnification provided by Sections 902 and 903, Section 16-10a-905 of the Revised Act provides that, unless otherwise limited by a corporation's articles of incorporation, an Indemnifiable Director may apply for indemnification to the court conducting the Proceeding or to another court of competent jurisdiction.

Section 16-10a-904 of the Revised Act provides that a corporation may pay for or reimburse the reasonable expenses (including attorneys' fees) incurred by an Indemnifiable Director who is a Party to a Proceeding in advance of the final disposition of the Proceeding upon the satisfaction of certain conditions.

Section 16-10a-907 of the Revised Act provides that, unless a corporation's articles of incorporation provide otherwise, (i) an officer of the corporation is entitled to mandatory indemnification under Section 903 and is entitled to apply for court-ordered indemnification under Section 905, in each case to the same extent as an Indemnifiable Director, (ii) the corporation may indemnify and advance expenses to an officer, employee, fiduciary or agent of the corporation to the same extent as an Indemnifiable Director, and (iii) a corporation may also indemnify and advance expenses to an officer, employee, fiduciary or agent who is not an Indemnifiable Director to a greater extent than the right of indemnification granted to an Indemnifiable Director, if not inconsistent with public policy, and if provided for by its articles of incorporation, bylaws, general or specific action of its board of directors or contract.

Section 16-10a-908 of the Revised Act provides that a corporation may purchase and maintain liability insurance on behalf of a person who is or was a director, officer, employee, fiduciary, or agent of the corporation or who, while serving as a director, officer, employee, fiduciary, or agent of the corporation, is or was serving at the request of the corporation as a director, officer, partner, trustee, employee, fiduciary, or agent of another foreign or domestic corporation or other person, or of an employee benefit plan against liability asserted against or incurred by the individual in that capacity or arising from his or her status as such, whether or not the corporation would have the power to indemnify him or her against the same liability under Section 902, 903, or 907 of the Revised Act.

Section 16-10a-909 of the Revised Act provides that a provision treating a corporation's indemnification of or advance for expenses to, Indemnifiable Directors that is contained in its articles of incorporation or bylaws, in a resolution of its stockholders or board of directors or in a contract, except an insurance policy, or otherwise, is valid only if and to the extent the provision is not inconsistent with Sections 901 through 909 of the Revised Act. If the articles of incorporation limit indemnification or advancement of expenses, indemnification and advancement of expenses are valid only to the extent not inconsistent with the articles.

Our articles of incorporation provide that we shall indemnify any person who is or was a director, officer, employee or agent of our company, or who was serving at our request as a director, officer, employee of agent of another entity, trust or plan to the fullest extent permitted by the Revised Act. Our bylaws also include mandatory indemnification provisions with respect of our officers and directors and discretionary indemnification provisions with respect to employees and agents, each subject to limitations generally reflecting the limitations on indemnification set forth in the Revised Act.

Our bylaws provide that we may purchase and maintain insurance on behalf of any person who is or was one of our directors, officers, employees or agents, or is or was serving at our request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him or her or incurred by him or her in such capacity or arising out of his or her status in such capacity, whether or not we would have the power to indemnify him or her against such liability under the indemnification provisions of the bylaws or the laws of the State of Utah, as the same are amended or modified. We maintain insurance from commercial carriers against certain liabilities that may be incurred by our directors and officers.

Indemnification may be granted pursuant to any other agreement, bylaw or vote of stockholders or directors. The foregoing description is necessarily general and does not describe all details regarding the indemnification of our officers, directors or controlling persons.

Item 16. Exhibits.

The following exhibits required by Item 601 of Regulation S-K promulgated under the Securities Act have been included herewith or have been filed previously with the SEC as indicated below.

Exhibit No.	Description
4.1	Form of common stock certificate (Incorporated by reference to our Registration Statement on Form S-18 filed with the SEC on October 19, 1989).
4.2	Articles of Incorporation (Incorporated by reference to our Quarterly Report on Form 10-Q filed with the SEC on August 14, 1996).
4.3	Articles of Amendment of the Articles of Incorporation dated May 14, 1993.±
4.4	Articles of Amendment to Articles of Incorporation dated June 6, 1996.±
4.5	Articles of Amendment to Articles of Incorporation dated June 12, 1997.±
4.6	Articles of Amendment to Articles of Incorporation dated August 27, 1997 (Incorporated by reference to our Registration Statement on Form 8-A filed with the SEC on October 9, 1997).
4.7	Articles of Amendment to the Articles of Incorporation dated May 22, 2003.±
4.8	Bylaws (Incorporated by reference to our Registration Statement on Form S-18 filed with the SEC on October 19, 1989).
4.9	Form of Warrant.
5.1	Opinion of Stoel Rives LLP*
23.1	Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm±

± Filed herewith.

* To be filed by amendment

Item 17. Undertakings.

1. The undersigned registrant hereby undertakes:

(1) 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 of 1933;

(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) if, in the aggregate, the changes in volume and price represent no more than a 20 percent 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)(1)(i) and (a)(1)(ii) do not apply if the registration statement is on Form S-3, Form S-8 or Form F-3, and the information required to be included in a post-effective

amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) 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 of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof."

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-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Salt Lake City, Utah on February 14, 2005.

MERIT MEDICAL SYSTEMS, INC.

By: /s/ KENT W. STANGER

Kent W. Stanger
Secretary and Chief Financial Officer

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

Signature	Capacity in Which Signed	Date
/s/ FRED P. LAMPROPOULOS Fred P. Lampropoulos	President, Chief Executive Officer and Director	February 14, 2005
/s/ KENT W. STANGER Kent W. Stanger	Chief Financial Officer, Secretary, Treasurer and Director (Principal financial and accounting officer)	February 14, 2005
/s/ RICHARD W. EDELMAN Richard W. Edelman	Director	February 14, 2005
/s/ REX C. BEAN Rex C. Bean	Director	February 14, 2005
/s/ JAMES J. ELLIS James J. Ellis	Director	February 14, 2005
/s/ MICHAEL E. STILLABOWER Michael E. Stillabower	Director	February 14, 2005

EXHIBIT INDEX

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4.8	Bylaws (Incorporated by reference to our Registration Statement on Form S-18 filed with the SEC on October 19, 1989).
4.9	Form of Warrant.
5.1	Opinion of Stoel Rives LLP*
23.1	Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm±

± Filed herewith.

* To be filed by amendment

Exhibit 4.3

State of Utah
Department of Commerce
Division of Corporations and Commercial Code

I Hereby certify that the foregoing has been filed and approved on the 14th day of May, '93 in the office of this Division and hereby issue this Certificate thereof.

[SEAL] **KORLA T. WOODS**

KORLA T. WOODS
Division Director

ARTICLES OF AMENDMENT OF THE ARTICLES OF INCORPORATION OF MERIT MEDICAL SYSTEMS, INC.

Pursuant to the provisions of the Utah Revised Business Corporation Act, the undersigned corporation does hereby adopt the following Articles of Amendment to its Articles of Incorporation:

1. The name of the corporation is MERIT MEDICAL SYSTEMS, INC.

2. The text of the Amendment adopted is as follows: The existing Article VII of the Articles of Incorporation is hereby deleted and replaced in its entirety as follows:

ARTICLE VII

LIMITATION OF LIABILITY OF DIRECTORS

To the fullest extent permitted by the Utah Revised Business Corporation Act or any other applicable law as now in effect or as it may hereafter be amended, a director of the corporation shall not be personally liable to the corporation or its shareholders for monetary damages for any action taken or any failure to take any action, as a director.

Neither any amendment nor repeal of this Article VII, nor the adoption of any provision in these Articles of Incorporation inconsistent with this Article VII, shall eliminate or reduce the effect of this Article VII in respect of any matter occurring, or any cause of action, suit or claim that, but for this Article VII, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

3. The foregoing amendment does not provide for any exchange, reclassification cancellation of issued shares.

4. The foregoing amendment was adopted by the shareholders of the corporation on the 15th day of May, 1993.

5. The foregoing amendment was approved by the shareholders at a meeting duly called for such purposes as follows:

a. The designation of the voting group which voted on the amendment was Common Stock; the number of shares of Common Stock outstanding and the number of votes entitled to be cast at the meeting by the Common Stock voting group was 6,243,808; the number of votes of the Common Stock indisputably represented at the meeting was 4,420,253, and

b. the total number of votes cast for the amendment by the Common Stock voting group was 4,121,378, and the total number of votes cast against the amendment by the Common Stock voting group was 282,610.

DATED this 13th day of May, 1993.

MERIT MEDICAL SYSTEMS, INC.,
a Utah corporation

By: /s/ FRED P. LAMPROPOULOS

Fred P. Lampropoulos
Chief Executive Officer

ATTEST:

By: /s/ KENT W. STANGER

Kent W. Stanger
Secretary

STATE OF UTAH)
:ss
COUNTY OF SALT LAKE)

On this 13th day of May, 1993, personally appeared before me, Fred P. Lampropoulos and Kent W. Stanger, whose identity is personally known to me (or proved to me on the basis of satisfactory evidence) and who by me duly sworn (or affirmed), did say that they are the Chief Executive Officer and Secretary, respectively, of Merit Medical Systems, Inc., and that said document was signed by them in behalf of said corporation by authority of its bylaws (or of a Resolution of its Board of Directors), and said persons acknowledged to me that said corporation executed the same.

/s/ RICHARD BROWN

Notary Public

[SEAL]

A Notary Public Commissioned in Utah

My commission expires

QuickLinks

Exhibit 4.3

ARTICLE VII LIMITATION OF LIABILITY OF DIRECTORS

Exhibit 4.4

State of Utah
Department of Commerce
Division of Corporations and Commerce Code

I Hereby certify that the foregoing has been filed and approved on the 7th day of June, '96 in the office of this Division and hereby issue this Certificate thereof.

Examiner BS Date 6/7/96

[SEAL] **KORLA T. WOODS**

KORLA T. WOODS
Division Director

ARTICLES OF AMENDMENT

TO

ARTICLES OF INCORPORATION

OF

MERIT MEDICAL SYSTEMS, INC.

Pursuant to the provisions of the Utah Revised Business Corporation Act, the undersigned corporation (the "Corporation") hereby adopts the following Articles of Amendment to its Articles of Incorporation:

1. The name of the Corporation is MERIT MEDICAL SYSTEMS, INC.

2. The text of each amendment adopted is as follows:

(a) A new Article XII shall be added to read in its entirety as follows:

ARTICLE XII
Vote Required to Approve Fundamental Changes

As to the following matters, the affirmative vote of two-thirds of the shares entitled to vote shall be required to approve any proposed shareholder action which otherwise requires shareholder approval under the Utah Revised Business Corporation Act: (a) to merge or consolidate the corporation with or into another corporation; (b) to sell, exchange, transfer or otherwise dispose of all or substantially all of the corporation's property and assets; (c) to dissolve or liquidate the corporation; or (d) to amend, change or delete this Article XII from the Articles of Incorporation.

3. The foregoing amendment to the Articles of Incorporation was adopted by the Board of Directors of the Corporation on April 15, 1996 and by the shareholders of the Corporation on May 30, 1996.

4. The foregoing amendment to the Articles of Incorporation was not adopted by the Board of Directors without shareholder action.

5. The foregoing amendment to the Articles of Incorporation was approved by the shareholders as follows:

(a) the designation of the voting group which voted on the amendment was Common Stock; the number of shares of Common Stock outstanding and the number of votes entitled to be cast at the meeting by the Common Stock voting group was 6,839,606; the number of votes of the Common Stock voting group indisputably represented at the meeting was 5,347,153; and

(b) the total number of votes cast for the amendment by the Common Stock voting group was 3,066,014, and 594,928 votes were cast against the amendment by the Common Stock voting group.

DATED this 6th day of June, 1996.

MERIT MEDICAL SYSTEMS, INC.,
a Utah corporate

By: /s/ FRED P. LAMPROPOULOS

Fred P. Lampropoulos, President and
Chief Executive Officer

QuickLinks

Exhibit 4.4

ARTICLE XII Vote Required to Approve Fundamental Changes

Exhibit 4.5

State of Utah
Department of Commerce
Division of Corporations and Commercial Code

I Hereby certify that the foregoing has been filed and approved on the 18th day of June, 1997 in the office of this Division and hereby issue this Certificate thereof.

Examiner J Date 6/24/97

[SEAL] **KORLA T. WOODS**

KORLA T. WOODS
Division Director

ARTICLES OF AMENDMENT

TO

ARTICLES OF INCORPORATION

OF

MERIT MEDICAL SYSTEMS, INC.

Pursuant to the provisions of the Utah Revised Business Corporation Act, the undersigned corporation (the "Corporation") hereby adopts the following Articles of Amendment to its Articles of Incorporation:

I.

The name of the corporation is Merit Medical Systems, Inc.

II.

The following Amendments to the Articles of Incorporation were adopted by the shareholders of the Corporation on May 21, 1997 in the manner prescribed by the Utah Revised Business Corporation Act:

A. Article IV of the Art e of Incorporation is hereby amended to read as follows:

ARTICLE IV
AUTHORIZED SHARES

The total number of shares of capital stock which the corporation shall have authority to issue is 25 million (25,000,000) of which five million (5,000,000) shall be shares of preferred stock, no par value (hereinafter called "Preferred Stock") and 20 million (20,000,000) shall be shares of common stock, no par value (hereinafter called "Common Stock").

The designation, powers, preferences and relative, participating, optional or other special rights, and qualifications, limitations or restrictions thereof, of each class of stock, and the express grant of authority to the board of directors to amend these Articles of Incorporation to fix the designation, powers, preferences and relative, participating, optional or other special rights, and qualifications, limitations or restrictions thereof, of each share of Preferred Stock which are not fixed by these Articles of Incorporation, are as follows:

A. PREFERRED STOCK

1. *Number; Series*. The Preferred Stock may be issued in one or more series, from time to time, with each such series to have such designation, powers, preferences and relative, participating, optional or other special rights and qualifications, limitations or restrictions thereof, as shall be stated and expressed n an amendment to these Articles of Incorporation providing for the issue of such series. The board of directors of the corporation is hereby

expressly vested with authority to amend the Articles of Incorporation, without shareholder action or approval, to: (a) create one or more series of Preferred Stock, fix the number of shares of each such series (within the total number of authorized shares of Preferred Stock available for designation as a part of such series), and designate and determine, in whole or part, the preferences, limitations, and relative rights of each series of Preferred Stock; (b) alter or revoke the preferences, limitations and relative rights granted to or imposed upon any wholly unissued series of Preferred Stock; or (c) increase or decrease the number of shares constituting any series of Preferred Stock (the number of shares of which was originally fixed by the board of directors) either before or after the issuance of shares of the series, provided that the number may not be decreased below the number of shares of such series then outstanding, or increased above the total number of authorized shares of the Preferred Stock available for designation as a part of such series. Without limiting the foregoing, the authority of the board of directors with respect to each such series shall include, but not be limited to, the determination or fixing of the following:

(i) The distinctive designation and number of shares comprising such series, which number may (except where otherwise provided by the board of directors in creating such series) be increased or decreased (but not below the number of shares then outstanding) from time to time by like action of the board of directors;

(ii) The dividend rate of such series, the conditions and times upon which such dividends shall be payable, the relation which such dividends shall bear to the dividends payable on any other class or classes of stock or series thereof, or on the other series of the same class, and whether dividends shall be cumulative or noncumulative;

(iii) The conditions upon which the shares of such series shall be subject to redemption by the corporation and the times, prices and other terms and provisions upon which the shares of the series may be redeemed;

(iv) Whether or not the shares of the series shall be subject to the operation of retirement or sinking fund provisions to be applied to the purchase or redemption of such shares and, if such retirement or sinking fund be established, the annual amount thereof and the terms and provisions relative to the operation thereof;

(v) Whether or not the shares of the series shall be convertible into or exchangeable for shares of any other class or classes, with or without par value, or of any other series of the same class and, if provision is made for conversion or exchange, the times, prices, rates, adjustments and other terms and conditions of such conversion or exchange;

(vi) Whether or not the shares of the series shall have voting rights, in addition to the voting rights provided by law, and, if so, subject to the limitations hereinafter set forth, the terms of such voting rights;

(vii) The rights of the shares of the series in the event of voluntary or involuntary liquidation, dissolution or upon distribution of assets of the corporation;

(viii) Any other powers, preferences and relative, participating, optional or other special rights, and qualifications, limitations or restrictions thereof, of the shares of such series, as the board of directors may deem advisable.

2. *Dividends*. The holders of the shares of Preferred Stock of each series shall be entitled to receive, when and as declared by the board of directors, out of the funds legally available for the payment of dividends, dividends at the rate fixed by the board of directors for such series for the current period and, if cumulative, for all prior periods for which such dividends are cumulative.

Whenever, at any time, dividends on the then outstanding Preferred Stock as may be required with respect to any series outstanding shall have been paid or declared and set apart for payment on the then outstanding Preferred Stock, and after complying with respect to any retirement or sinking fund or funds for all applicable series of Preferred Stock, the board of directors may, subject to the provisions of the resolution or resolutions creating the series of Preferred Stock, declare and pay dividends on the Common Stock as provided in paragraph B.1. of this Article IV, and the holders of shares of Preferred Stock shall not be entitled to share therein, except as otherwise provided in the amendment creating any series.

3. *Liquidation: Dissolution.* The holders of the Preferred Stock of each series shall be entitled upon liquidation or dissolution of the corporation to such preferences as are provided in the amendment creating such series of Preferred Stock, and no more, before any distribution of the assets of the corporation shall be made to the holders of shares of the Common Stock. Whenever the holders of shares of the Preferred Stock shall have been paid the full amounts to which they shall be entitled, the holders of shares of the Common Stock shall be entitled to share in all assets of the corporation remaining as provided in paragraph B.2. of this Article IV. If, upon such liquidation, dissolution or winding up, the assets of the corporation distributable as aforesaid among the holders of Preferred Stock of all series shall be insufficient to permit full payment to them of said preferential amounts, then such assets shall be distributed ratably among such holders in proportion to the respective total amounts which they shall be entitled to receive as provided in this paragraph 3.

4. *Voting.* Except as otherwise provided by an amendment to the Articles of Incorporation creating any series of Preferred Stock or by the general corporation law of Utah, the Common Stock issued and outstanding shall have and possess the exclusive power to vote for the election of directors and for all other purposes as provided in paragraph B.3. of this Article IV.

5. *Preemptive Rights*. Except as may be provided in the amendment adopted by the board of directors providing for the issue of any series of Preferred Stock, no holder of shares of the Preferred Stock of the corporation shall, as such holder, be entitled as of right to subscribe for, purchase or receive any part of any new or additional issue of stock of any class, whether now or hereafter authorized, or of bonds, debentures or other securities convertible into or exchangeable for stock, but all such additional shares of stock of any class, or bonds, debentures or other securities convertible into or exchangeable for stock, may be issued and disposed of by the board of directors on such terms and for such consideration, so far as may be permitted by law, and to such persons, as the board of directors in its absolute discretion may deem advisable.

B. COMMON STOCK

1. *Dividends.* Subject to the rights of the holders of Preferred Stock, and subject to any other provisions of the Articles of Incorporation, holders of Common Stock shall be entitled to receive such dividends and other distributions in cash, stock or property of the corporation as may be declared thereon by the board of directors from time to time out of assets or funds of the corporation legally available therefor.

2. *Liquidation: Dissolution.* In the event of any liquidation, dissolution or winding up of the affairs of the corporation, whether voluntary or involuntary, after payment or provision for payment of the debts and other liabilities of the corporation and after payment or provision for payment to the holders of each series of Preferred Stock of all amounts required in accordance with paragraph A.3. of this Article IV, the remaining assets and funds of the corporation shall be divided among and paid to the holders of Common Stock.

3. Voting.

(a) At every meeting of the shareholders every holder of Common Stock shall be entitled to one vote in person or by proxy for each share of such Stock standing in his name on the stock transfer records of the corporation.

(b) No shareholder shall have the right to cumulate votes in the election of directors.

4. *Preemptive Rights*. No holder of shares of Common Stock of the corporation shall, as such holder, be entitled as of right to subscribe for, purchase or receive any part of any new or additional issue of stock of any class, whether now or hereafter authorized, or of bonds, debentures or other securities convertible into or exchangeable for stock, but all such additional shares of stock of any class, or bonds, debentures or other securities convertible into or exchangeable for stock, may be issued and disposed of by the board of directors on such terms and for such consideration, so far as may be permitted by law, and to such persons, as the board of directors in its absolute discretion may deem advisable.

B. Article VI of the Articles of Incorporation is hereby amended to read as follows:

ARTICLE VI
DIRECTORS

The board of directors shall consist of such number of members, which number shall not be less than three and not more than nine as may be determined and established from time to time by the board of directors and shall be divided into three classes, as nearly equal in size as possible. No increase in the maximum number of members shall be made except upon the affirmative vote of not less than two- thirds of the outstanding capital stock of the corporation entitled to vote thereon. The initial terms of directors first elected or reelected by the shareholders after the adoption of this amendment and revision of the Articles of Incorporation shall be for the following terms of office:

Class A Directors—One Year

Class B Directors—Two Years

Class C Directors—Three Years

Upon the expiration of the initial term specified for each class of directors, their successors shall be elected for three-year terms or until such time as their successors shall be elected and qualified, with one class of directors to be elected each year.

Vacancies on the board of directors, whether the result of removal (with or without cause), death, resignation or otherwise, shall be filled by majority vote of the remaining members of the board of directors, regardless of whether such remaining members constitute a quorum.

The corporation shall nominate persons to serve as members of the board of directors upon the expiration of the term of each class of directors, which nominations shall be submitted to the shareholders at the annual meeting of shareholders for approval. Any nominations for election to the board of directors shall be received, with respect to any annual meeting of shareholders, not later than the date specified by the board of directors for submission of such nominations. Failure to submit timely nominations shall prevent consideration of the nominations at such annual shareholders' meetings.

Directors of the corporation may be removed "for cause" only upon the affirmative vote of the holders of a majority of the outstanding capital stock entitled to vote thereon. A director may be removed for cause only after a finding that (i) the director engaged in fraudulent or dishonest conduct or gross abuse of authority or discretion, with respect to the

corporation and (ii) removal is in the best interests of the corporation. Directors of the corporation may be removed for any reason other than cause only upon the affirmative vote of the holders of not less than two-thirds of the outstanding capital stock of the corporation entitled to vote thereon.

III.

The number of shares of the capital stock of the Corporation outstanding and entitled to be cast on the foregoing Amendments by the shareholders of the Corporation was 7,239,681 shares of common stock (the "Common Stock"). No other class of shares was issued and outstanding.

IV.

The number of shares of the Common Stock voted for the Amendment to Article IV was 2,962,020 shares; 977,908 shares of the Common Stock were voted against such Amendment. The number of shares of the Common Stock voted for the Amendment to Article VI was 3,161,677 shares; 970,848 shares of the Common Stock were voted against such Amendment.

DATED this 12th day of June, 1997

Merit Medical Systems, Inc., a Utah corporation

By: /s/ KENT W. STANGER

Kent W. Stanger, Chief Financial Officer,
Secretary and Treasurer

QuickLinks

Exhibit 4.5

I.
II.
ARTICLE IV AUTHORIZED SHARES
ARTICLE VI DIRECTORS
III.
IV.

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Exhibit 4.7

ARTICLES OF AMENDMENT
TO THE
ARTICLES OF INCORPORATION
OF
MERIT MEDICAL SYSTEMS, INC.

May 22, 2003

In accordance with Section 16-10a-1006 of the Utah Revised Business Corporation Act (the "Act"), MERIT MEDICAL SYSTEMS, INC., a Utah corporation (the "Corporation"), hereby declares and certifies as follows:

1. The name of the Corporation is MERIT MEDICAL SYSTEMS, INC.

2. The first full paragraph of Article IV of the Articles of Incorporation of the Corporation, as amended to date, shall be amended and replaced in its entirety as follows (the "Amendment"):

> The total number of shares of capital stock which the corporation shall have the authority to issue is fifty-five million (55,000,000), of which five million (5,000,000) shall be shares of preferred stock, no par value (hereinafter called "Preferred Stock") and fifty million (50,000,000) shall be shares of common stock, no par value (hereinafter called "Common Stock").

3. The Amendment does not provide for an exchange, reclassification, or cancellation of issued shares.

4. The Amendment was adopted as of May 22, 2003 in accordance with the provisions of the Act.

5. The designation, number of outstanding shares, number of votes entitled to be cast, number of shares indisputably representing at the meeting at which the Amendment was considered, and the total number of votes cast for, and against, the Amendment by the sole voting group entitled to vote on the Amendment were as follows:

Designation, Number of Outstanding Shares and Number of Votes Entitled to be Cast by Sole Voting Group Entitled to Vote on the Amendment	Number of Votes Indisputably Represented at the Meeting	Number of Votes Cast For the Amendment	Number of Votes Cast Against the Amendment or Abstaining From Voting
14,152,794 shares of Common Stock	11,803,311	8,927,099	2,430,150

The number of votes cast for the Amendment was sufficient for approval.

IN WITNESS WHEREOF, these Articles of Amendment have been executed by the Corporation as of the date first written above.

MERIT MEDICAL SYSTEMS, INC.,
a Utah corporation

By: /s/ RASHELLE PERRY

Its: General Counsel

Chief Legal Officer
VP of Legal

MAILING ADDRESS

If, upon completion of filing of the above Articles of Amendment, the Utah Division of Corporations and Commercial Code elects to send a copy of the Articles of Amendment to the Corporation by mail, the address to which the copy should be mailed is:

Merit Medical Systems, Inc.
1600 Merit Parkway
South Jordan, Utah 84095
Attn: Kent W. Stanger

QuickLinks

Exhibit 4.7

ARTICLES OF AMENDMENT TO THE ARTICLES OF INCORPORATION OF MERIT MEDICAL SYSTEMS, INC.
MAILING ADDRESS

Exhibit 4.9

NEITHER THIS WARRANT NOR THE SHARES OF STOCK ISSUABLE UPON EXERCISE HEREOF HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR UNDER ANY STATE SECURITIES LAWS. THIS WARRANT AND SAID SHARES ARE SUBJECT TO RESTRICTIONS ON TRANSFERABILITY AND RESALE AND NEITHER THIS WARRANT, SAID SHARES OR ANY INTEREST THEREIN MAY BE TRANSFERRED, SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF A REGISTRATION STATEMENT IN EFFECT WITH RESPECT THERETO UNDER THE ACT AND APPLICABLE STATE SECURITIES LAWS OR AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT ANY PROPOSED TRANSFER OR RESALE IS IN COMPLIANCE WITH THE ACT AND ANY APPLICABLE STATE SECURITIES LAWS.

Void after 5:00 p.m., Mountain Time
on November 17, 2009.

MERIT MEDICAL SYSTEMS, INC.

COMMON STOCK PURCHASE WARRANT

This certifies that as of November 17, 2004 (the "*Grant Date*"), for value received, MedSource Packaging Concepts LLC, a Virginia limited liability company (the "*Purchaser*") or registered assigns (the Purchaser or such assignee, as applicable, being referred to herein as the "*Holder*"), is hereby granted this warrant entitling the Holder to purchase 25,742 shares of Common Stock, no par value (the "*Common Stock*"), of Merit Medical Systems, Inc., a Utah corporation (the "*Company*") (this certificate and the warrant evidenced hereby being, collectively, this "*Warrant*") at $10.1275 per share of Common Stock (the "*Exercise Price*"). The number of shares of Common Stock to be received upon the exercise of this Warrant (the "*Warrant Shares*") and the Exercise Price may be adjusted from time to time as hereinafter set forth. This Warrant is issued pursuant to and is subject to the terms and conditions of that certain Asset Purchase Agreement, dated as of the date hereof, between, among others, the Company and the Purchaser (the "*Purchase Agreement*"). All terms used but not defined herein shall have the meaning ascribed thereto in the Purchase Agreement.

1. *Exercise of Warrant; Escrow of Warrant, Warrant Shares and Other Proceeds*.

(a) Subject to the provisions of Section 2 below, this Warrant may be exercised at any time or from time to time on or after the Grant Date, but in any event no later than 5:00 p.m., Mountain time, on the fifth anniversary of the Grant Date, or if such date is a day on which federal or state-chartered banking institutions in Utah are authorized by law to close, then on the next succeeding day which shall not be such a day; provided, however, this Warrant may not be exercised with respect to a partial number of the Warrant Shares, and upon exercise must be exercised with respect to all the Warrant Shares issuable in connection with the exercise of this Warrant as of the Grant Date. Such exercise shall be effective upon presentation and surrender to the Company at its principal office or at the office of its stock transfer agent, if any, of this Warrant with the duly executed Notice of Exercise form set forth on *Exhibit A* (attached hereto and made a part hereof by this reference) (the "*Notice of Exercise*"). The Notice of Exercise must be accompanied by payment, in cash or by certified or official bank check, payable to the order of the Company, in the amount of the Exercise Price for the number of the Warrant Shares with respect to which such Notice of Exercise is being delivered, together with all taxes applicable upon such exercise and all expenses of the Company, if any, required to be reimbursed by the Holder pursuant to Section 5(b) below. The number of Warrant Shares that may be purchased upon exercise of this Warrant may be adjusted, if at all, in accordance with Section 7 below. The Company may require the Holder to execute such further documents and make certain representations and warranties as

the Company deems necessary to ensure compliance with exemptions from applicable federal and state securities laws as required by Section 2 below.

(b) This Warrant, the Warrant Shares and any other proceeds of the Warrant are subject to the terms of the Purchase Agreement and a related Escrow Agreement (the "Escrow Agreement") for a period of 12 months from the date hereof, wherein, among other things, the Warrant, the Warrant Shares and any proceeds from the Warrant or the Warrant Shares secure the accuracy of representations, warranties, covenants and other obligations of Purchaser and are a source of recovery for breaches and losses related thereto. In the event that the Holder elects to exercise and receive Warrant Shares, according to the terms of this Warrant, and/or, if a registration statement with respect to such shares filed with the Securities and Exchange Commission has been declared effective, to sell Warrant Shares according to all applicable laws, rules and regulations, Holder acknowledges and agrees that all Warrant Shares issued upon exercise of the Warrant, and all such proceeds received upon sale of any Warrant Shares, shall be made payable to the Escrow Agent, and subject to the Escrow Agreement in the same manner that the Warrant was subject to the Escrow Agreement prior to the receipt of Warrant Shares and/or proceeds.

2. *Compliance with Securities Laws*. This Warrant may not be exercised by the Holder unless at the time of exercise (i) a registration statement registering the Warrant Shares upon such exercise is effective under the Securities Act of 1933, as amended (and together with the rules and regulations promulgated thereunder, collectively, the "*Securities Act*"), or the Company has received an opinion letter from Holder's counsel acceptable to the Company that the transaction in which such Warrant Shares are to be issued is exempted from the application of the registration requirements of the Securities Act, and (ii) the Warrant Shares have been registered or qualified under any applicable state securities laws or the Company has received an opinion letter from Holder's counsel acceptable to the Company that an exemption from registration or qualification is available under such laws.

3. *Stock Fully Paid; Reservation of Shares*. All Warrant Shares that may be issued upon the exercise of this Warrant shall, upon issuance, be duly authorized, validly issued, fully paid and nonassessable, and free from all taxes, liens and charges with respect to the issue thereof. The Company hereby covenants and agrees that at all times during the period this Warrant is exercisable it shall reserve from its authorized and unissued Common Stock for issuance and delivery upon exercise of this Warrant such number of shares of its Common Stock as shall be required for issuance and delivery upon exercise of this Warrant.

4. *Fractional Shares*. No fractional shares or stock representing fractional shares shall be issued upon the exercise of this Warrant. In lieu of any fractional shares which would otherwise be issuable, the Company shall, in its sole discretion, either (i) pay cash equal to the product of such fraction multiplied by the value of one share of Common Stock on the date of exercise, as determined in good faith by the Company's Board of Directors, or (ii) issue the number of Warrant Shares rounded up to the next largest whole number.

5. *Transfer, Exchange, Assignment or Loss of Warrant or Certificates*.

(a) This Warrant may not be assigned or transferred except as provided herein and in accordance with and subject to the provisions of the Securities Act and any applicable state securities laws. Any purported transfer or assignment made other than in accordance with this Section 5 and Section 8 hereof shall be null and void and of no force and effect.

(b) This Warrant shall be transferable only upon the receipt of an opinion of counsel satisfactory to the Company to the effect that (i) the transferee is a person to whom the Warrant may be legally transferred without registration under the Securities Act or any state securities laws; and (ii) such transfer will not violate any applicable law or governmental rule or regulation including, without limitation, any applicable federal or state securities law. Prior to any transfer or

assignment of this Warrant, the assignor or transferor shall reimburse the Company for its reasonable expenses, including attorneys' fees, incurred in connection with the transfer or assignment and such assignee or transferee shall agree in writing to be bound by all the terms of the Escrow Agreement and the applicable terms of the Purchase Agreement. This Warrant may be transferred or assigned for no consideration, without the Company's consent, to an affiliate of the Purchaser, so long as such transfer is in compliance with the requirements set forth in Section 5(a) and (i) and (ii) above in this Section 5(b).

(c) Any assignment permitted hereunder shall be made by surrender of this Warrant to the Company at its principal office with the duly executed Assignment Form set forth on Exhibit B attached hereto and made a part hereof by this reference and funds sufficient to pay any transfer tax. In such event, the Company shall, upon reimbursement of the Company's expenses in accordance with Section 5(b) above, execute and deliver a new Warrant in the name of the assignee named in such Assignment Form, and this Warrant shall promptly be cancelled. If in compliance with the other terms contained herein, this Warrant may be divided upon presentation thereof at the principal office of the Company together with a written notice signed by the Holder thereof, specifying the names and denominations in which new Warrants are to be issued. The terms "*Warrant*" and "*Warrants*" as used herein include any Warrants in substitution for or replacement of this Warrant, or into which this Warrant may be divided or exchanged.

(d) Upon receipt by the Company of evidence satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate representing Warrant Shares issued upon the exercise hereof and, in the case of any such loss, theft or destruction, upon receipt of an indemnity reasonably satisfactory to the Company, and, in the case of any such mutilation, upon surrender and cancellation of this Warrant or such stock certificate, the Company will execute and deliver a new Warrant or stock certificate of like tenor and date, and any such lost, stolen, destroyed or mutilated Warrant or stock certificate shall thereupon become void.

(e) Each of the Holders of this Warrant, the Warrant Shares or any other security issued or issuable upon exercise of this Warrant shall indemnify and hold harmless the Company, its directors and officers, and each person, if any, who controls the Company, against any losses, claims, damages or liabilities, joint or several, to which the Company or any such director, officer or any such person may become subject under the Securities Act or any statute or common law, insofar as such losses, claims, damages or liabilities, or actions in respect thereof, arise out of or are based upon the disposition by such Holder of the Warrant, the Warrant Shares or other such securities in violation of the terms of this Warrant.

6. *Rights of the Holder*. The Holder shall not, by virtue hereof, be entitled to any rights of a shareholder in the Company, either at law or equity, and the rights of the Holder by virtue hereof are limited to those expressed in this Warrant and are not enforceable against the Company except to the extent set forth herein.

7. *Adjustment of Exercise Price and Number of Shares*. The number and kind of securities issuable upon the exercise of this Warrant and the Exercise Price of such securities shall be subject to adjustment from time to time upon the happening of any of the following events after the Grant Date:

(a) *Subdivision or Combination of Common Stock*. If the Company at any time subdivides (by any stock split, stock dividend or otherwise) one or more classes of its outstanding shares of Common Stock into a greater number of shares, or combines (by reverse stock split or otherwise) one or more classes of its outstanding shares of Common Stock into a smaller number of shares, the number of Warrant Shares purchasable upon exercise of this Warrant immediately prior thereto shall be adjusted so that the Holder of this Warrant shall be entitled to receive the kind and number of Warrant Shares or other securities of the Company which it would have owned or have been entitled to receive after the happening of any of the events described above had this Warrant

been exercised immediately prior to the happening of such event or any record date with respect thereto. If the Holder is entitled to receive shares of two or more classes of capital stock of the Company pursuant to the foregoing upon exercise of the Warrant, the Company shall determine the allocation of the adjusted Exercise Price between the classes of capital stock. After such allocation, the exercise privilege and the Exercise Price of each class of capital stock shall thereafter be subject to adjustment on terms comparable to those applicable to Common Stock in this Section. An adjustment made pursuant to this paragraph (a) shall become effective immediately after the effective date of such event retroactive to the record date, if any, for such event. Such adjustment shall be made successively whenever such a subdivision, combination or reclassification is made.

(b) *Adjustment in Exercise Price*. Whenever the number of Warrant Shares purchasable upon the exercise of each Warrant is adjusted as provided in this Section, the Exercise Price payable upon exercise of each Warrant shall be adjusted by multiplying such Exercise Price immediately prior to such adjustment by a fraction, of which the numerator shall be the number of Warrant Shares purchasable upon the exercise of each Warrant immediately prior to such adjustment, and of which the denominator shall be the number of Warrant Shares purchasable immediately thereafter.

8. *Transfer to Comply with the Securities Act and State Securities Laws*.

(a) Neither this Warrant, the Warrant Shares, any other security issued or issuable upon exercise of this Warrant, nor any interest therein may be sold, transferred or otherwise disposed of except to a person who, in the opinion of counsel to the Holder reasonably satisfactory to the Company, is a person to whom this Warrant or such Warrant Shares may legally be transferred pursuant to Section 5 hereof without registration and without the delivery of a current prospectus under the Securities Act with respect thereto or in reliance upon a valid exemption from the registration requirements of applicable securities laws and then only upon compliance by the Holder and such purchaser with the requirements of Section 5 and against receipt of an agreement of such person to comply with the provisions of this Warrant with respect to any resale or other disposition of this Warrant and/or such securities, as applicable.

(b) The Holder, by acceptance of this Warrant, agrees that the Warrant Shares to be issued upon exercise hereof are being acquired for the account of the Holder for investment and not with a view to, or for resale in connection with, the distribution thereof and that the Holder will not offer, sell or otherwise dispose of such Warrant Shares except under circumstances which will not result in a violation of the Securities Act and all applicable state securities laws. The Holder represents that the Holder has no present intention of distributing or reselling the Warrant Shares.

(c) The Company may cause the following legend, or one of similar substance, to be set forth on each certificate representing Warrant Shares or any other security issued or issuable upon exercise of this Warrant, unless the Holder delivers an opinion of counsel satisfactory to the Company that that such legend is unnecessary:

THE SECURITIES OF THE COMPANY EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON EXEMPTIONS FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT OF 1933, AS AMENDED, AND VARIOUS APPLICABLE STATE SECURITIES LAWS. NEITHER THE SECURITIES NOR ANY INTEREST THEREIN MAY BE SOLD, TRANSFERRED, PLEDGED, ASSIGNED OR ENCUMBERED BY A SECURITY INTEREST, UNLESS THE PURCHASE, TRANSFER, ASSIGNMENT, PLEDGE OR GRANT OF SUCH SECURITY INTEREST COMPLIES WITH ALL STATE, FEDERAL AND OTHER APPLICABLE SECURITIES LAWS AND UNLESS THE SELLER, TRANSFEROR, ASSIGNOR, PLEDGOR OR GRANTOR OF SUCH SECURITY

INTEREST PROVIDES AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT THE TRANSACTION CONTEMPLATED WOULD NOT BE IN VIOLATION OF THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY OTHER APPLICABLE SECURITIES LAWS. THE SECURITIES ARE ALSO SUBJECT TO THE TERMS AND CONDITIONS OF AN ESCROW AGREEMENT, DATED AS OF NOVEMBER 17, 2004, AMONG MERIT MEDICAL SYSTEMS, INC., THE HOLDER AND CERTAIN OTHER PARTIES. TRANSFERABILITY OF THE SECURITIES IS THEREFORE LIMITED AND SUBJECT TO THE TERMS OF THE ESCROW AGREEMENT AND INVESTORS MUST BEAR THE ECONOMIC RISK OF THEIR INVESTMENT FOR AN INDEFINITE PERIOD OF TIME.

9. *Governing Law*. This Warrant shall be governed by, and construed in accordance with, the laws of the State of Utah applicable to contracts entered into and to be performed wholly within Utah. Each of the Company and the Holder submits itself or himself to the exclusive jurisdiction of the federal and state courts of the State of Utah.

10. *Modification and Waiver*. This Warrant and any provision hereof may be modified, amended, waived or discharged only by an instrument in writing signed by the party against which enforcement of the same is sought.

11. *Notice*. Notices and other communications to be given to the Holder shall be delivered by hand or mailed, postage prepaid, to such address as the Holder shall have designated by written notice to the Company as provided in this Section. Notices or other communications to the Company shall be deemed to have been sufficiently given if delivered by hand or mailed postage prepaid to the Company at 1600 West Merit Parkway, South Jordan, Utah 84095, or such other address as the Company shall have designated by written notice to the Holder as provided in this Section. Notice by mail shall be deemed given when deposited in the United States mail, postage prepaid, as herein provided.

12. *Construction*. The descriptive headings of the several paragraphs and sections of this Warrant are inserted for convenience only and do not constitute a part of this Warrant. Unless otherwise indicated, references to sections shall be construed as references to the corresponding Sections of this Warrant.

[*remainder of page left blank; signature page follows*]

IN WITNESS WHEREOF, the Company and the Purchaser have executed this Warrant as of the date first set forth above.

MERIT MEDICAL SYSTEMS, INC.
a Utah corporation

By: /s/ FRED P. LAMPROPOULOS

Fred P. Lampropoulos
President and CEO

MEDSOURCE PACKAGING CONCEPTS LLC
a Virginia limited liability company

By: /s/ ROBERT E. HALE

Robert E. Hale
President

EXHIBIT A
NOTICE OF EXERCISE

TO: MERIT MEDICAL SYSTEMS, INC. (the "*Company*"):

1. The undersigned holder of the attached warrant (the "*Warrant*") hereby elects to purchase all the Warrant Shares (as defined in the Warrant).

2. Please issue a certificate or certificates representing such Warrant Shares in the name of the undersigned.

(DATE)

(SIGNATURE)

(PRINT OR TYPE NAME)

EXHIBIT B
ASSIGNMENT FORM

Dated:

FOR VALUE RECEIVED, hereby sells, assigns, and transfers unto (please type or print) (address) the right to purchase Common Stock represented by the warrant attached hereto and does hereby irrevocably constitute and appoint Merit Medical Systems, Inc. (the "*Company*") and/or its transfer agent as attorney to transfer the same on the books of the Company with full power of substitution in the premises.

(SIGNATURE)

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated February 27, 2004, relating to the financial statements and financial statement schedule of Merit Medical Systems, Inc. which report expresses an unqualified opinion and includes an explanatory paragraph relating to the adoption of Statement of Financial Accounting Standards No. 142, *Goodwill and Other Intangible Assets*, in 2002, appearing in and incorporated by reference in the Annual Report on Form 10-K of Merit Medical Systems, Inc. for the year ended December 31, 2003 and to the reference to us under the heading "Experts" in the Prospectus, which is part of this Registration Statement.

/s/ DELOITTE & TOUCHE LLP

Salt Lake City, Utah
February 14, 2005

QuickLinks

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM