SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

PURSUANT TO SECTION 13 OR 15(d) of the

SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported): May 4, 2006

AtriCure, Inc.

(Exact name of registrant as specified in charter)

Delaware (State or other jurisdiction of incorporation) 000-51470 (Commission File Number)

34-1940305 (IRS Employer Identification No.)

6033 Schumacher Park Drive West Chester, OH (Address of principal executive offices)

45069 (Zip Code)

Registrant's telephone number, including area code: (513) 755-4100

Not Applicable

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02. Results of Operations and Financial Condition.

On May 4, 2006, AtriCure, Inc. issued a press release and is holding a conference call regarding its financial results for the first quarter of fiscal year 2006 ended March 31, 2006. A copy of the press release is furnished as Exhibit 99.1 to this Form 8-K and is incorporated herein by reference.

The information in this Form 8-K is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that Section. The information in this Form 8-K shall not be incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in any such filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

No. Description
99.1 Press Rele

Press Release of AtriCure, Inc. dated as of May 4, 2006.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ATRICURE, INC.

By: /s/ Thomas J. Etergino

Thomas J. Etergino
Vice President and Chief Financial Officer

Dated: May 4, 2006

EXHIBIT LIST

Description
Press Release of AtriCure, Inc. dated as of May 4, 2006. No. 99.1



Contacts:

AtriCure, Inc.

Thomas Etergino Chief Financial Officer 513-755-4561 tetergino@atricure.com The Ruth Group

Stephanie Carrington / Nick Laudico (investors) (646) 536-7017 / 7030 scarrington@theruthgroup.com nlaudico@theruthgroup.com

Jason Rando (media) (646) 536-7025 jrando@theruthgroup.com

Press Release

AtriCure Reports First Quarter 2006 Financial Results

- Provides 2006 Financial Guidance -

WEST CHESTER, Ohio – May 4, 2006 – AtriCure, Inc. (Nasdaq:ATRC), a medical device company focused on developing, manufacturing and selling innovative surgical devices, announced today financial results for the first quarter ended March 31, 2006.

First quarter 2006 consolidated revenue was \$8.6 million, compared to \$7.5 million for the first quarter 2005 and \$8.6 million for the fourth quarter 2005. First quarter 2006 revenue from domestic open-heart products was \$5.5 million, revenue from domestic minimally invasive sole-therapy products was \$2.3 million, and international revenue was \$0.8 million.

Gross profit for the first quarter 2006 was \$7.0 million with gross margins of 81.5%, compared to \$5.6 million with gross margins of 74.4% in the same period last year.

Research and development expenses were \$2.9 million for the first quarter 2006, compared with \$1.7 million for the first quarter 2005 and \$2.8 million for the fourth quarter 2005. The increased research and development expenses were attributable primarily to the expansion of product development initiatives and clinical trials.

Selling, general and administrative expenses were \$7.5 million for the first quarter 2006, compared with \$5.2 million for the first quarter 2005 and \$7.9 million for the fourth quarter 2005. Selling, general and administrative expenses increased year over year primarily due to the expansion of the Company's sales and marketing organization and higher general corporate expenditures as a result of being a public company.

Net loss available to common shareholders for the first quarter 2006 totaled \$3.1 million or \$0.26 per share, including the after-tax effect of approximately \$0.2 million of stock-based compensation related to SFAS 123(R) and other non-cash-based compensation. Excluding the impact of non-cash-based compensation, adjusted net loss available to common shareholders totaled \$2.9 million or \$0.24 per share for the first quarter 2006.

Cash, cash equivalents and investments at March 31, 2006 were \$29.8 million.

David Drachman, President and Chief Executive Officer, said, "Our first quarter performance reflects strong continuing support from our customers and the successful execution by AtriCure in meeting the market challenges. Our entire organization has demonstrated significant resolve and commitment to preserving and improving human life through the expansion of treatment options for patients who suffer from atrial fibrillation."

Financial Guidance

For the full year 2006, the Company expects total revenue to be between \$36.0 million and \$38.0 million and loss per share to be between \$1.30 and \$1.50. The Company's full year loss per share guidance includes the estimated impact of \$0.08 to \$0.10 per share of after-tax, stock-based compensation related to SFAS 123(R) and other non-cash-based compensation.

For the second quarter 2006, the Company expects total revenue to be between \$8.9 million and \$9.4 million.

Conference Call

AtriCure will host a Web cast and conference call at 5:30 pm ET on May 4, 2006 to discuss first quarter 2006 results. A live Web cast of the conference call will be available online from the investor relations page of AtriCure's corporate Web site at www.atricure.com. The dial-in numbers are (866) 831-6270 for domestic callers and (617) 213-8858 for international callers. The reservation number for both is 66542359. A recording of the conference call will remain available on AtriCure's Web site through August 2, 2006. A telephonic replay of the call will be available until June 5, 2006. The replay dial-in numbers are (888) 286-8010 for domestic callers and (617) 801-6888 for international callers. Please use reservation code 68239897.

About AtriCure, Inc.

AtriCure, Inc. is a medical device company focused on developing, manufacturing and selling innovative surgical devices to create precise lesions, or scars, in soft and cardiac tissues. Medical journals have described the adoption by leading cardiothoracic surgeons of the AtriCure bipolar ablation system as a standard treatment alternative during open-heart surgical procedures to safely, rapidly and reliably create lesions in cardiac, or heart, tissue to block the abnormal electrical impulses that cause atrial fibrillation, a rapid, irregular quivering of the upper chambers of the heart. Atrial fibrillation affects more than 2.4 million people in the U.S. and predisposes them to a five fold increased risk of stroke.

The FDA has cleared the AtriCure bipolar ablation system for the ablation, or destruction, of soft tissues in general and non-cardiac related surgical procedures but to date has not cleared or approved the system for cardiac use or for the treatment of AF.

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include statements that address activities, events or developments that AtriCure expects, believes or anticipates will or may occur in the future, such as earnings estimates, other predictions of financial performance, launches by AtriCure of new products and market acceptance of AtriCure's products. Forward-looking statements are based on AtriCure's experience and perception of current conditions, trends, expected future developments and other factors it believes are appropriate under the circumstances and are subject to numerous risks and uncertainties, many of which are beyond AtriCure's control. These risks and uncertainties include the rate and degree of market acceptance of AtriCure's products, AtriCure's ability to develop and market new and enhanced products, the timing of and ability to obtain and maintain regulatory clearances and approvals for its products, the timing of and ability to obtain reimbursement of procedures utilizing AtriCure's products, competition from existing and new products and procedures or AtriCure's ability to effectively react to other risks and uncertainties described from time to time in AtriCure's SEC filings, such as fluctuation of quarterly financial results, reliance on third party manufacturers and suppliers, litigation or other proceedings, government regulation and stock price volatility. AtriCure does not guarantee any forward-looking statement, and actual results may differ materially from those projected. AtriCure undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.

ATRICURE, INC. CONDENSED STATEMENTS OF OPERATIONS (Unaudited)

	Three Months Ended March 31, 2006 2005	
Revenues	\$ 8,636,808	\$ 7,497,759
Cost of revenues (a)	1,599,741	1,919,512
Gross profit	7,037,067	5,578,247
Operating expenses:	<u> </u>	· <u> </u>
Research and development expenses (a)	2,910,493	1,736,836
Selling, general and administrative expenses	7,496,098	5,228,598
Total operating expenses	10,406,591	6,965,434
Loss from operations	(3,369,524)	(1,387,187)
Preferred stock interest expense	_	(976,292)
Interest income, net	279,753	20,801
Loss before income taxes	(3,089,771)	(2,342,678)
Income tax expense		23,500
Net loss available to common shareholders	\$ (3,089,771)	\$(2,366,178)
Basic and diluted loss per share	\$ (0.26)	\$ (1.26)
Weighted average shares outstanding:		
Basic and diluted	12,096,200	1,881,542
		·
(a) Includes the following expenses resulting from transactions with Enable Medical Corporation prior to the acquisition of	as of August 10, 20	005:
Cost of revenues	\$ —	\$ 1,621,470
Research and development expenses	<i>\$</i> —	\$ 382,635

ATRICURE, INC. CONDENSED BALANCE SHEETS (Unaudited)

	March 31, 2006	December 31, 2005
Assets		
Current assets:		
Cash and cash equivalents	\$ 23,058,275	\$ 27,432,948
Short-term investments	4,920,257	6,369,234
Accounts receivable, net	5,490,512	4,865,065
Inventories, net	2,708,529	2,135,143
Other current assets	726,148	845,330
Total current assets	36,903,721	41,647,720
Property and equipment, net	3,272,995	3,359,549
Long-term investments	1,788,680	_
Intangible assets	933,278	986,778
Goodwill	3,840,837	3,840,837
Other assets	233,029	205,531
Total assets	\$ 46,972,540	\$ 50,040,415
Liabilities and shareholders' equity		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 5,301,570	\$ 5,374,998
Current maturities of capital lease obligation and long-term debt	373,711	369,835
Total current liabilities	5,675,281	5,744,833
Capital lease obligation	32,737	38,855
Long-term debt	956,332	1,045,150
Other liabilities	42,187	28,125
Shareholders' equity:		
Common stock	12,117	12,086
Additional paid-in capital	85,687,317	86,107,520
Unearned compensation	_	(599,591)
Other comprehensive income	(6,270)	826
Accumulated deficit	(45,427,161)	(42,337,389)
Total shareholders' equity	40,266,003	43,183,452
Total liabilities and shareholders' equity	\$ 46,972,540	\$ 50,040,415

ATRICURE, INC. CONDENSED STATEMENTS OF CASH FLOWS (Unaudited)

Cash flows from operating activities: 2006 2005 Net loss \$(3,089,771) \$(2,366,178) Adjustments to reconcile net loss to net cash used in operating activities: 3(2,366,178) Depreciation and amortization 426,556 298,650 Gain on disposal of equipment (20,000) — Stock compensation 197,377 169,451 Preferred stock interest — 976,292 Changes in assets and liabilities, excluding the effects of acquisition: (605,449) (876,226) Inventory (573,386) 37,045 Other current assets 119,181 (88,419) Accounts payable and accrued liabilities (250,824) 676,763 Other non-current assets and liabilities 30,870 (605,441) Net cash used in operating activities (3,765,446) (1,778,363)
Net loss \$(3,089,771) \$(2,366,178) Adjustments to reconcile net loss to net cash used in operating activities:
Adjustments to reconcile net loss to net cash used in operating activities: Depreciation and amortization 426,556 298,650 Gain on disposal of equipment (20,000) — Stock compensation 197,377 169,451 Preferred stock interest — 976,292 Changes in assets and liabilities, excluding the effects of acquisition: (605,449) (876,226) Inventory (573,386) 37,045 Other current assets 119,181 (88,419) Accounts payable and accrued liabilities (250,824) 676,763 Other non-current assets and liabilities 30,870 (605,741) Net cash used in operating activities (3,765,446) (1,778,363)
Depreciation and amortization 426,556 298,650 Gain on disposal of equipment (20,000) — Stock compensation 197,377 169,451 Preferred stock interest — 976,292 Changes in assets and liabilities, excluding the effects of acquisition: — (605,449) (876,226) Inventory (573,386) 37,045 Other current assets 119,181 (88,419) Accounts payable and accrued liabilities (250,824) 676,763 Other non-current assets and liabilities 30,870 (605,741) Net cash used in operating activities (3,765,446) (1,778,363)
Gain on disposal of equipment (20,000) — Stock compensation 197,377 169,451 Preferred stock interest — 976,292 Changes in assets and liabilities, excluding the effects of acquisition: — (605,449) (876,226) Inventory (573,386) 37,045 Other current assets 119,181 (88,419) Accounts payable and accrued liabilities (250,824) 676,763 Other non-current assets and liabilities 30,870 (605,741) Net cash used in operating activities (3,765,446) (1,778,363)
Stock compensation 197,377 169,451 Preferred stock interest — 976,292 Changes in assets and liabilities, excluding the effects of acquisition: — 876,226 Accounts receivable (605,449) (876,226) Inventory (573,386) 37,045 Other current assets 119,181 (88,419) Accounts payable and accrued liabilities (250,824) 676,763 Other non-current assets and liabilities 30,870 (605,741) Net cash used in operating activities (3,765,446) (1,778,363)
Preferred stock interest — 976,292 Changes in assets and liabilities, excluding the effects of acquisition: — 976,292 Accounts receivable (605,449) (876,226) Inventory (573,386) 37,045 Other current assets 119,181 (88,419) Accounts payable and accrued liabilities (250,824) 676,763 Other non-current assets and liabilities 30,870 (605,741) Net cash used in operating activities (3,765,446) (1,778,363)
Changes in assets and liabilities, excluding the effects of acquisition: Accounts receivable (605,449) (876,226) Inventory (573,386) 37,045 Other current assets 119,181 (88,419) Accounts payable and accrued liabilities (250,824) 676,763 Other non-current assets and liabilities 30,870 (605,741) Net cash used in operating activities (3,765,446) (1,778,363)
Accounts receivable (605,449) (876,226) Inventory (573,386) 37,045 Other current assets 119,181 (88,419) Accounts payable and accrued liabilities (250,824) 676,763 Other non-current assets and liabilities 30,870 (605,741) Net cash used in operating activities (3,765,446) (1,778,363)
Inventory (573,386) 37,045 Other current assets 119,181 (88,419) Accounts payable and accrued liabilities (250,824) 676,763 Other non-current assets and liabilities 30,870 (605,741) Net cash used in operating activities (3,765,446) (1,778,363)
Other current assets 119,181 (88,419) Accounts payable and accrued liabilities (250,824) 676,763 Other non-current assets and liabilities 30,870 (605,741) Net cash used in operating activities (3,765,446) (1,778,363)
Accounts payable and accrued liabilities (250,824) 676,763 Other non-current assets and liabilities 30,870 (605,741) Net cash used in operating activities (3,765,446) (1,778,363)
Other non-current assets and liabilities30,870(605,741)Net cash used in operating activities(3,765,446)(1,778,363)
Net cash used in operating activities (3,765,446) (1,778,363)
Cash flows from investing activities:
Cash nows from investing activities.
Purchases of property & equipment (193,389) (450,072)
Purchases of available-for-sale securities (353,929) —
Advance payments for acquisition of company — (500,000)
Net cash used in investing activities (547,318) (950,072)
Cash flow from financing activities:
Payments on long-term debt (82,010) —
Payments on capital lease obligations (9,049) —
Proceeds from stock option exercises and warrants 29,150 4,850
Net cash provided by (used in) financing activities (61,909) 4,850
Net decrease in cash and cash equivalents (4,374,673) (2,723,585)
Cash and cash equivalents - beginning of period 27,432,948 5,175,177
Cash and cash equivalents - end of period \$23,058,275 \$ 2,451,592