

CARDIOVASCULAR SYSTEMS INC

Reported by
HOWE ROGER J

FORM 4

(Statement of Changes in Beneficial Ownership)

Filed 11/20/09 for the Period Ending 11/18/09

Address	651 CAMPUS DRIVE ST PAUL, MN 55112
Telephone	651-259-1600
CIK	0001180145
Symbol	CSII
SIC Code	3841 - Surgical and Medical Instruments and Apparatus
Industry	Medical Equipment & Supplies
Sector	Healthcare
Fiscal Year	06/30

FORM 4

[] Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**UNITED STATES SECURITIES AND EXCHANGE
COMMISSION
Washington, D.C. 20549**

OMB APPROVAL
OMB Number: 3235-0287
Expires: February 28, 2011
Estimated average burden hours per response... 0.5

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP
OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,
Section 17(a) of the Public
Utility Holding Company Act of 1935 or Section 30(f) of the
Investment Company Act of 1940

1. Name and Address of Reporting Person * Howe Roger J <small>(Last) (First) (Middle)</small> 651 CAMPUS DRIVE <small>(Street)</small> ST. PAUL, MN 55112 <small>(City) (State) (Zip)</small>	2. Issuer Name and Ticker or Trading Symbol Cardiovascular Systems Inc [CSII] 3. Date of Earliest Transaction (MM/DD/YYYY) <p align="center">11/18/2009</p>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director _____ 10% Owner <input type="checkbox"/> Officer (give title below) _____ Other (specify below)
4. If Amendment, Date Original Filed (MM/DD/YYYY)		6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Trans. Date	2A. Deemed Execution Date, if any	3. Trans. Code (Instr. 8)				4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction (s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)				
Common Stock	11/18/2009		S		14350	D	\$4.8184 (1)	0	I	By Limited Liability Limited Partnership (2)

Table II - Derivative Securities Beneficially Owned (e.g. , puts, calls, warrants, options, convertible securities)

1. Title of Derivate Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Trans. Date	3A. Deemed Execution Date, if any	4. Trans. Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction (s) (Instr. 4)	10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Stock Option (right to buy)	\$9.28							12/1/2004	11/30/2009	Common Stock	12940		12940	D	
Stock Option (right to buy)	\$12.37							12/1/2005	11/30/2010	Common Stock	9705		9705	D	
Stock Option (right to buy)	\$8.83							12/19/2006	12/18/2016	Common Stock	12940		12940	D	
Stock Option (right to buy)	\$7.90							10/9/2007	10/8/2017	Common Stock	4321		4321	D	
Stock Option (right to buy)	\$11.38							11/13/2007	11/12/2017	Common Stock	15088		15088	D	
Stock Option (right to buy)	\$12.15							12/31/2007	12/30/2012	Common Stock	121490		121490	D	
Warrant	\$9.28							10/25/2005	11/16/2009	Common Stock	8411		8411	I	By Limited Liability Limited Partnership (2)
Restricted Stock Units	(3)							(3)	(3)	Common Stock	5714		5714	D	

Table II - Derivative Securities Beneficially Owned (e.g. , puts, calls, warrants, options, convertible securities)

1. Title of Derivate Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Trans. Date	3A. Deemed Execution Date, if any	4. Trans. Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction (s) (Instr. 4)	10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Restricted Stock Units	(4)							(4)	(4)	Common Stock	11628		11628	D	

Explanation of Responses:

- (1) The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$4.81 to \$4.84, inclusive. The reporting person undertakes to provide Cardiovascular Systems, Inc., any security holder of Cardiovascular Systems, Inc. or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the ranges set forth in this footnote (1) to this Form 4.
- (2) Shares held by Sonora Web LLLP, of which Dr. Howe is the General Partner.
- (3) Each restricted stock unit represents the right to receive a payment from CSI equal in value to the market price per share of CSI common stock on the date of payment and shall be payable in cash beginning six months following the termination of each director's board membership.
- (4) Each restricted stock unit represents the right to receive a payment from CSI equal in value to the market price per share of CSI common stock on the date of payment, and shall be payable in cash beginning six months following the termination of each director's board membership; provided, however, that the restricted stock units vest in equal quarterly amounts of 2,907 on each of 9/30/2009, 12/31/2009, 3/31/2010 and 6/30/2010.

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Howe Roger J 651 CAMPUS DRIVE ST. PAUL, MN 55112	X			

Signatures

/s/ John R. Remakel as Attorney-in-Fact for Roger J. Howe pursuant to Power of Attorney previously filed.

11/20/2009

** Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.