

REPLIDYNE INC  
Form SC 13G/A  
May 10, 2007

**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**SCHEDULE 13G**  
**(Amendment No. 2)**

Under the Securities Exchange Act of 1934

Replidyne, Inc.  
(Name of Issuer)

Common Stock, \$0.001 par value  
(Title of Class of Securities)

76028W107  
(CUSIP Number)

April 30, 2007  
(Date of Event Which Requires Filing of this Statement)

Check the following box to designate the rule pursuant to which the Schedule is filed:

- Rule 13d-1(b)
- Rule 13d-1(c)
- Rule 13d-1(d)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

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CUSIP No. 76028W107

1. **Names of Reporting Persons**  
**I.R.S. Identification Nos. of above persons (entities only)**  
 D. E. Shaw Meniscus Portfolios, L.L.C.  
 51-0481096

2. **Check the Appropriate Box if a Member of a Group (See Instructions)**  
 (a)   
 (b)

3. **SEC Use Only**

4. **Citizenship or Place of Organization**  
 Delaware

**Number of  
 Shares  
 Beneficially  
 Owned by  
 Each  
 Reporting  
 Person With**

**5. Sole Voting Power**

-0-

**6. Shared Voting Power**

-0-

**7. Sole Dispositive Power**

-0-

**8. Shared Dispositive Power**

-0-

9. **Aggregate Amount Beneficially Owned by Each Reporting Person**  
 -0-

10. **Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)**

11. **Percent of Class Represented by Amount in Row (9)**  
 0.0%

12. **Type of Reporting Person (See Instructions)**  
 OO

CUSIP No. 76028W107

1. **Names of Reporting Persons**  
**I.R.S. Identification Nos. of above persons (entities only)**  
 D. E. Shaw Composite Portfolios, L.L.C.  
 13-4152438

2. **Check the Appropriate Box if a Member of a Group (See Instructions)**  
 (a)   
 (b)

3. **SEC Use Only**

4. **Citizenship or Place of Organization**  
 Delaware

**Number of  
 Shares  
 Beneficially  
 Owned by  
 Each  
 Reporting  
 Person With**

5. **Sole Voting Power**

-0-

6. **Shared Voting Power**  
 2,215,820

7. **Sole Dispositive Power**  
 -0-

8. **Shared Dispositive Power**  
 2,215,820

9. **Aggregate Amount Beneficially Owned by Each Reporting Person**  
 2,215,820

10. **Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)**

11. **Percent of Class Represented by Amount in Row (9)**  
 8.2%

12. **Type of Reporting Person (See Instructions)**  
 OO

CUSIP No. 76028W107

1. **Names of Reporting Persons**  
**I.R.S. Identification Nos. of above persons (entities only)**  
 D. E. Shaw & Co., L.L.C.  
 13-3799946

2. **Check the Appropriate Box if a Member of a Group (See Instructions)**  
 (a)   
 (b)

3. **SEC Use Only**

4. **Citizenship or Place of Organization**  
 Delaware

**Number of  
 Shares  
 Beneficially  
 Owned by  
 Each  
 Reporting  
 Person With**

**5. Sole Voting Power**

-0-

**6. Shared Voting Power**  
 2,215,820

**7. Sole Dispositive Power**  
 -0-

**8. Shared Dispositive Power**  
 2,215,820

9. **Aggregate Amount Beneficially Owned by Each Reporting Person**  
 2,215,820

10. **Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)**

11. **Percent of Class Represented by Amount in Row (9)**  
 8.2%

12. **Type of Reporting Person (See Instructions)**  
 OO

CUSIP No. 76028W107

1. **Names of Reporting Persons**  
**I.R.S. Identification Nos. of above persons (entities only)**  
 D. E. Shaw & Co., L.P.  
 13-3695715

2. **Check the Appropriate Box if a Member of a Group (See Instructions)**  
 (a)   
 (b)

3. **SEC Use Only**

4. **Citizenship or Place of Organization**  
 Delaware

**Number of  
 Shares  
 Beneficially  
 Owned by  
 Each  
 Reporting  
 Person With**

5. **Sole Voting Power**

-0-

6. **Shared Voting Power**  
 2,313,722

7. **Sole Dispositive Power**  
 -0-

8. **Shared Dispositive Power**  
 2,313,722

9. **Aggregate Amount Beneficially Owned by Each Reporting Person**  
 2,313,722

10. **Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)**

11. **Percent of Class Represented by Amount in Row (9)**  
 8.6%

12. **Type of Reporting Person (See Instructions)**  
 IA, PN

CUSIP No. 76028W107

1. **Names of Reporting Persons**  
**I.R.S. Identification Nos. of above persons (entities only)**  
 David E. Shaw
2. **Check the Appropriate Box if a Member of a Group (See Instructions)**  
 (a)    
 (b)
3. **SEC Use Only**
4. **Citizenship or Place of Organization**  
 United States

**Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With**

**5. Sole Voting Power**

-0-

**6. Shared Voting Power**  
2,313,722

**7. Sole Dispositive Power**  
-0-

**8. Shared Dispositive Power**  
2,313,722

9. **Aggregate Amount Beneficially Owned by Each Reporting Person**  
2,313,722

10. **Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)**

11. **Percent of Class Represented by Amount in Row (9)**  
8.6%

12. **Type of Reporting Person (See Instructions)**  
IN

**Item 1.**

**(a) Name of Issuer**

Replidyne, Inc.

**(b) Address of Issuer's Principal Executive Offices**

1450 Infinite Drive  
Louisville, CO 80027

**Item 2.**

**(a) Name of Person Filing**

D. E. Shaw Meniscus Portfolios, L.L.C.  
D. E. Shaw Composite Portfolios, L.L.C.  
D. E. Shaw & Co., L.L.C.  
D. E. Shaw & Co., L.P.  
David E. Shaw

**(b) Address of Principal Business Office or, if none, Residence**

The business address for each reporting person is:  
120 W. 45<sup>th</sup> Street, Tower 45, 39<sup>th</sup> Floor  
New York, NY 10036

**(c) Citizenship**

D. E. Shaw Meniscus Portfolios, L.L.C. is a limited liability company organized under the laws of the state of Delaware.  
D. E. Shaw Composite Portfolios, L.L.C. is a limited liability company organized under the laws of the state of Delaware.  
D. E. Shaw & Co., L.L.C. is a limited liability company organized under the laws of the state of Delaware.  
D. E. Shaw & Co., L.P. is a limited partnership organized under the laws of the state of Delaware.  
David E. Shaw is a citizen of the United States of America.

**(d) Title of Class of Securities**

Common Stock, \$0.001 par value

**(e) CUSIP Number**

76028W107

**Item 3. If this statement is filed pursuant to Rule 13d-1(b) or 13d-2(b) or (c), check whether the person filing is a:**

Not applicable

**Item 4. Ownership**

As of May 3, 2007:

**(a) Amount beneficially owned:**

D. E. Shaw Meniscus Portfolios, L.L.C.: -0- shares

D. E. Shaw Composite Portfolios, L.L.C.: 2,215,820 shares

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D. E. Shaw & Co., L.L.C.: 2,215,820 shares  
This is composed of 2,215,820 shares in the  
name of  
D. E. Shaw Composite Portfolios, L.L.C.

D. E. Shaw & Co., L.P.: 2,313,722 shares  
This is composed of (i) 2,215,820 shares in the  
name of D. E. Shaw Composite Portfolios,  
L.L.C. and (ii) 97,902 shares in the name of  
D. E. Shaw Valence Portfolios, L.L.C.

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David E. Shaw: 2,313,722 shares  
 This is composed of (i) 2,215,820 shares in the name of D. E. Shaw Composite Portfolios, L.L.C. and (ii) 97,902 shares in the name of D. E. Shaw Valence Portfolios, L.L.C.

(b) Percent of class:

D. E. Shaw Meniscus Portfolios, L.L.C.:	0.0%
D. E. Shaw Composite Portfolios, L.L.C.:	8.2%
D. E. Shaw & Co., L.L.C.:	8.2%
D. E. Shaw & Co., L.P.:	8.6%
David E. Shaw:	8.6%

(c) Number of shares to which the person has:

- (i) Sole power to vote or to direct the vote:
 

D. E. Shaw Meniscus Portfolios, L.L.C.:	-0- shares
D. E. Shaw Composite Portfolios, L.L.C.:	-0- shares
D. E. Shaw & Co., L.L.C.:	-0- shares
D. E. Shaw & Co., L.P.:	-0- shares
David E. Shaw:	-0- shares
  
- (ii) Shared power to vote or to direct the vote:
 

D. E. Shaw Meniscus Portfolios, L.L.C.:	-0- shares
D. E. Shaw Composite Portfolios, L.L.C.:	2,215,820 shares
D. E. Shaw & Co., L.L.C.:	2,215,820 shares
D. E. Shaw & Co., L.P.:	2,313,722 shares
David E. Shaw:	2,313,722 shares
  
- (iii) Sole power to dispose or to direct the disposition of:
 

D. E. Shaw Meniscus Portfolios, L.L.C.:	-0- shares
D. E. Shaw Composite Portfolios, L.L.C.:	-0- shares
D. E. Shaw & Co., L.L.C.:	-0- shares
D. E. Shaw & Co., L.P.:	-0- shares
David E. Shaw:	-0- shares
  
- (iv) Shared power to dispose or to direct the disposition of:
 

D. E. Shaw Meniscus Portfolios, L.L.C.:	-0- shares
D. E. Shaw Composite Portfolios, L.L.C.:	2,215,820 shares
D. E. Shaw & Co., L.L.C.:	2,215,820 shares
D. E. Shaw & Co., L.P.:	2,313,722 shares
David E. Shaw:	2,313,722 shares

David E. Shaw does not own any shares directly. By virtue of David E. Shaw's position as President and sole shareholder of D. E. Shaw & Co., Inc., which is the general partner of D. E. Shaw & Co., L.P., which in turn is the investment adviser of D. E. Shaw Composite Portfolios, L.L.C. and the managing member and investment adviser of

D. E. Shaw Valence Portfolios, L.L.C., and by virtue of David E. Shaw's position as President and sole shareholder of D. E. Shaw & Co. II, Inc., which is the managing member of D. E. Shaw & Co., L.L.C., which in turn is the managing member of D. E. Shaw Composite Portfolios, L.L.C., David E. Shaw may be deemed to have the shared power to vote or direct the vote of, and the shared power to dispose or direct the disposition of, the 2,313,722 shares as described above constituting 8.6% of the outstanding shares and, therefore, David E. Shaw may be deemed to be the beneficial owner of such shares. David E. Shaw disclaims beneficial ownership of such 2,313,722 shares.

**Item 5. Ownership of Five Percent or Less of a Class**

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than 5 percent of the class of securities, check the following x

As of the date hereof, D. E. Shaw Meniscus Portfolios, L.L.C. has ceased to be the beneficial owner of more than 5 percent of the class of securities.

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**Item 6.**  
Not Applicable

**Ownership of More than Five Percent on Behalf of Another Person.**

**Item 7.**  
Not Applicable

**Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person.**

**Item 8.**  
Not Applicable

**Identification and Classification of Members of the Group**

**Item 9.**  
Not Applicable

**Notice of Dissolution of Group**

**Item 10. Certification**

By signing below, each of D. E. Shaw Meniscus Portfolios, L.L.C., D. E. Shaw Composite Portfolios, L.L.C., D. E. Shaw & Co., L.L.C., D. E. Shaw & Co., L.P., and David E. Shaw certify that, to the best of such reporting person's knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having such purposes or effect.

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Anne Dinning  
Attorney-in-Fact for David E. Shaw

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