NATUS MEDICAL INC Form SC 13D/A April 18, 2011

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

SCHEDULE 13D Under the Securities Exchange Act of 1934 (Amendment No. 16)

NATUS MEDICAL INCORPORATED (BABY) (Name of Issuer)

Common Stock (Title of Class of Securities)

639050103 (CUSIP Number)

David Nierenberg The D3 Family Funds 19605 NE 8th Street Camas, WA 98607 (360) 604-8600

With a copy to:

Christopher P. Davis Kleinberg, Kaplan, Wolff & Cohen, P.C. 551 Fifth Avenue New York, NY 10176 (212) 986-6000

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

April 14, 2011 (Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box []TM.

NAME OF REPORTING PERSONS 1 I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only) The D3 Family Fund, L.P. 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) [X] (b) [] 3 SEC USE ONLY 4 SOURCE OF FUNDS (See Instructions) WC 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) [] 6 CITIZENSHIP OR PLACE OF ORGANIZATION Washington NUMBER OF SHARES 7 **SOLE VOTING POWER BENEFICIALLY** SHARED VOTING POWER **OWNED BY** 8 **EACH** 286,521 common shares (1.0%) **REPORTING** 9 **PERSON** SOLE DISPOSITIVE POWER WITH 10 SHARED DISPOSITIVE POWER 286,521 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON For the reporting person listed on this page, 286,521; for all reporting persons as a group, 1,785,442 shares (6.2%) 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) For the reporting person listed on this page, 1.0%; for all reporting persons as a group 6.2% TYPE OF REPORTING PERSON (See Instructions) 14 PN

NAME OF REPORTING PERSONS

 I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only)
 The D3 Family Bulldog Fund, L.P.

 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

 (a) [X]
 (b) []

 SEC USE ONLY
 SOURCE OF FUNDS (See Instructions)

 WC

 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO

6 CITIZENSHIP OR PLACE OF ORGANIZATION

Washington

ITEMS 2(d) or 2(e) []

NUMBER OF SHARES	7	SOLE VOTING POWER
BENEFICIALLY		0
OWNED BY	8	SHARED VOTING POWER
EACH		1,147,026 common shares (4.0%)
REPORTING		
PERSON	9	SOLE DISPOSITIVE POWER
WITH		0
	10	SHARED DISPOSITIVE POWER
		1,147,026

- AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON For the reporting person listed on this page, 1,147,026; for all reporting persons as a group, 1,785,442 shares (6.2%)
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)
- PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) For the reporting person listed on this page, 4.0%; for all reporting persons as a group 6.2%
- 14 TYPE OF REPORTING PERSON (See Instructions) PN

NAME OF REPORTING PERSONSI.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only)

The D3 Family Canadian Fund, L.P.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) [X]

(b) []

- 3 SEC USE ONLY
- 4 SOURCE OF FUNDS (See Instructions) WC
- 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) []
- 6 CITIZENSHIP OR PLACE OF ORGANIZATION

Washington

NUMBER OF SHARES	7	SOLE VOTING POWER
BENEFICIALLY		0
OWNED BY	8	SHARED VOTING POWER
EACH		129,931 common shares (0.4%)
REPORTING		
PERSON	9	SOLE DISPOSITIVE POWER
WITH		0

10 SHARED DISPOSITIVE POWER 129.931

- AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON For the reporting person listed on this page, 129,931; for all reporting persons as a group, 1,785,442 shares (6.2%)
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)
- PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
 For the reporting person listed on this page, 0.4%; for all reporting persons as a group 6.2%
- 14 TYPE OF REPORTING PERSON (See Instructions) PN

NAME OF REPORTING PERSONSI.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only)

The DIII Offshore Fund, L.P.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) [X]

(b) []

- 3 SEC USE ONLY
- 4 SOURCE OF FUNDS (See Instructions) WC
- 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) []
- 6 CITIZENSHIP OR PLACE OF ORGANIZATION

Bahamas

NUMBER OF SHARES	7	SOLE VOTING POWER
BENEFICIALLY	0	U
OWNED BY	8	SHARED VOTING POWER
EACH		221,964 common shares (0.8%)
REPORTING		
PERSON	9	SOLE DISPOSITIVE POWER
WITH		0
	10	SHARED DISPOSITIVE POWER

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON For the reporting person listed on this page, 221,964; for all reporting persons as a group, 1,785,442 shares (6.2%)

221,964

- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)
- PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) For the reporting person listed on this page, 0.8%; for all reporting persons as a group 6.2%
- 14 TYPE OF REPORTING PERSON (See Instructions) PN

NAME OF REPORTING PERSONS 1 I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only) Nierenberg Investment Management Company, Inc. 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) [X] (b) [] 3 SEC USE ONLY 4 SOURCE OF FUNDS (See Instructions) AF CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO 5 ITEMS 2(d) or 2(e) [] 6 CITIZENSHIP OR PLACE OF ORGANIZATION Washington NUMBER OF SHARES 7 **SOLE VOTING POWER** BENEFICIALLY SHARED VOTING POWER **OWNED BY** 8 1,785,442 shares (6.2%) **EACH REPORTING PERSON** 9 SOLE DISPOSITIVE POWER WITH 10 SHARED DISPOSITIVE POWER 1.785,442 shares 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON For the reporting person listed on this page, 1,785,442; for all reporting persons as a group, 1,785,442 shares (6.2%) 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) For the reporting person listed on this page, 6.2%; for all reporting persons as a group 6.2% TYPE OF REPORTING PERSON (See Instructions) 14 CO

NAME OF REPORTING PERSONSI.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only)

Nierenberg Investment Management Offshore, Inc.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)

(a) [X]

(b) []

- 3 SEC USE ONLY
- 4 SOURCE OF FUNDS (See Instructions) AF
- 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) []
- 6 CITIZENSHIP OR PLACE OF ORGANIZATION

Bahamas

NUMBER OF SHARES	7	SOLE VOTING POWER
BENEFICIALLY		0
OWNED BY	8	SHARED VOTING POWER
EACH		221,964 common shares (0.8%)
REPORTING		
PERSON	9	SOLE DISPOSITIVE POWER
WITH		0

10 SHARED DISPOSITIVE POWER 221,964 common shares

- AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON For the reporting person listed on this page, 221,964; for all reporting persons as a group, 1,785,442 shares (6.2%)
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)
- PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) For the reporting person listed on this page, 0.8%; for all reporting persons as a group 6.2%
- 14 TYPE OF REPORTING PERSON (See Instructions) CO

NAME OF REPORTING PERSONS 1 I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only) David Nierenberg 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) [X] (b) [] 3 SEC USE ONLY 4 SOURCE OF FUNDS (See Instructions) AF 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) [] 6 CITIZENSHIP OR PLACE OF ORGANIZATION United States of America 7 NUMBER OF SHARES **SOLE VOTING POWER BENEFICIALLY** SHARED VOTING POWER **OWNED BY** 8 **EACH** 1,785,442 common shares (6.2%) **REPORTING PERSON** 9 SOLE DISPOSITIVE POWER WITH 10 SHARED DISPOSITIVE POWER 1.785,442 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON For the reporting person listed on this page, 1,785,442; for all reporting persons as a group, 1,785,442 shares (6.2%) 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) For the reporting person listed on this page, 6.2%; for all reporting persons as a group 6.2% TYPE OF REPORTING PERSON (See Instructions) 14 IN

This Amendment No. 16 to Schedule 13D (this "Amendment") amends the below-indicated Items from the Schedule 13D with respect to the shares of common stock (the "Common Stock") of Natus Medical Incorporated (the "Issuer" or "BABY") previously filed by or on behalf of the Reporting Persons (as defined below), as previously amended (collectively the "Schedule 13D"), by supplementing such Items with the information below.

The names of the persons filing this Amendment (collectively, the "Reporting Persons") are: The D3 Family Fund, L.P. (the "Family Fund"), The D3 Family Bulldog Fund, L.P. (the "Bulldog Fund"), The D3 Family Canadian Fund, L.P. (the "Canadian Fund"), The DIII Offshore Fund, L.P. (the "Offshore Fund"), Nierenberg Investment Management Company, Inc. ("NIMCO"), Nierenberg Investment Management Offshore, Inc. ("NIMO") and David Nierenberg ("Mr. Nierenberg").

Item 5. Interest in Securities of the Issuer.

- (a) The Reporting Persons, in the aggregate, beneficially own 1,785,442 shares of Common Stock, constituting approximately 6.2% of the outstanding shares.
- (b) The Family Fund, NIMCO and Mr. Nierenberg have shared power (i) to vote or direct the vote of, and (ii) to dispose or direct the disposition of, the 286,521 shares of Common Stock held by the Family Fund.

The Bulldog Fund, NIMCO and Mr. Nierenberg have shared power (i) to vote or direct the vote of, and (ii) to dispose or direct the disposition of, the 1,147,026 shares of Common Stock held by the Bulldog Fund.

The Canadian Fund, NIMCO and Mr. Nierenberg have shared power (i) to vote or direct the vote of, and (ii) to dispose or direct the disposition of, the 129,931 shares of Common Stock held by the Canadian Fund.

The Offshore Fund, NIMO, NIMCO and Mr. Nierenberg have shared power (i) to vote or direct the vote of, and (ii) to dispose or direct the disposition of, the 221,964 shares of Common Stock held by the Offshore Fund.

(c) Since our last Amendment to Schedule 13D the following sales of shares of Common Stock were made by the Reporting Persons named below in open market transactions:

Fund	Trade Date	QTY	Price
D3 Family Fund, LP	04/01/2011	1,500	17.01
D3 Family Bulldog	04/01/2011	6,805	17.01
Fund, LP			
D3 Family Fund, LP	04/04/2011	11,900	17.15
D3 Family Bulldog	04/04/2011	45,338	17.15
Fund, LP			
D3 Family Fund, LP	04/05/2011	3,100	17.13
D3 Family Bulldog	04/05/2011	13,482	17.13
Fund, LP			
D3 Family Fund, LP	04/06/2011	4,861	17.20
D3 Family Bulldog	04/06/2011	20,000	17.20
Fund, LP			
D3 Family Fund, LP	04/07/2011	4,500	17.18
D3 Family Bulldog	04/07/2011	17,334	17.18
Fund, LP		,	
D3 Family Fund, LP	04/08/2011	7,155	17.34
D3 Family Bulldog	04/08/2011	29,300	17.34
Fund, LP			
D3 Family Fund, LP	04/11/2011	9,000	17.29
D3 Family Bulldog	04/11/2011	35,714	17.29
Fund, LP			
DIII Offshore Fund, LP	04/11/2011	1,500	17.29
D3 Family Fund, LP	04/12/2011	4,200	17.24
D3 Family Bulldog	04/12/2011	17,800	17.24
Fund, LP			
DIII Offshore Fund, LP	04/12/2011	3,012	17.24
DIII Offshore Fund, LP	04/13/2011	100	17.25
D3 Family Fund, LP	04/14/2011	27,000	16.78
D3 Family Bulldog	04/14/2011	109,000	16.78
Fund, LP			
DIII Offshore Fund, LP	04/14/2011	21,835	16.78
D3 Family Fund, LP	04/15/2011	1,618	16.88
D3 Family Bulldog	04/15/2011	6,000	16.88
Fund, LP		, -	
DIII Offshore Fund, LP	04/15/2011	1,000	16.88
*		*	

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, each of the undersigned certifies that the information set forth in the Statement is true, complete and correct.

L.P., and D3 Family Canadian Fund, L.P.	D3 Family Fund, L.P., D3 Family Bulldog Fund,
Inc.	By: Nierenberg Investment Management Company
April 18, 2011	Its: General Partner By: /s/ David Nierenberg
	David Nierenberg, President
	DIII Offshore Fund, L.P.
Inc.	By: Nierenberg Investment Management Offshore,
April 18, 2011	Its: General Partner By: /s/ David Nierenberg
	David Nierenberg, President
	Nierenberg Investment Management Company, Inc.
April 18, 2011	By: /s/ David Nierenberg
	David Nierenberg, President
	Nierenberg Investment Management Offshore, Inc.
April 18, 2011	By: /s/ David Nierenberg
	David Nierenberg, President
April 18, 2011	/s/ David Nierenberg
	David Nierenberg