

PROSPECTUS SUPPLEMENT
Dated July 3, 2018
(To Prospectus Dated November 22, 2017)



**610 Shares of Series F Convertible Preferred Stock
(and 287,920 Shares of Common Stock Underlying the Series F Convertible Preferred Stock)
Warrants to Purchase up to 8,028,000 Shares of Common Stock
(and 8,028,000 Shares of Common Stock Issuable Upon Exercise of Warrants)**

This prospectus supplement (this “Supplement”) modifies, supersedes and supplements certain information contained in, and should be read in conjunction with, that certain prospectus (including the information incorporated by reference therein, the “Prospectus”) filed by CHF Solutions, Inc. (the “Company”), dated November 22, 2017, related to the public offering (the “November 2017 Offering”) of the Company’s Series F convertible preferred stock, Series 1 warrants and Series 2 warrants (each as defined in the Prospectus). This Supplement is not complete without, and may not be delivered or used except in connection with, the Prospectus.

The Company’s common stock is listed on the Nasdaq Capital Market under the symbol “CHFS.” On June 28, 2018, the last reported sale price of the Company’s common stock on the Nasdaq Capital Market was \$2.10 per share.

The information contained in this Supplement modifies and supersedes, in part, the information in the Prospectus. Any information that is modified or superseded in the Prospectus shall not be deemed to constitute a part of the Prospectus, except as modified or superseded by this Supplement.

We may amend or supplement the Prospectus from time to time by filing amendments or supplements as required. You should read the entire Prospectus and any amendments or supplements carefully before you make an investment decision.

Investing in our securities involves risks. See “Risk Factors” beginning on page 7 of the Prospectus and in the documents incorporated by reference into the Prospectus.

FORWARD-LOOKING STATEMENTS

You should carefully consider the risk factors set forth in the Prospectus, as well as the other information contained, or incorporated by reference, in this Supplement or the Prospectus. The Prospectus contains forward-looking statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance that are not historical facts. You are cautioned that any forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties. Actual results may differ materially from those included within the forward-looking statements as a result of various factors. Cautionary statements in the “Risk Factors” section of the Prospectus and in the documents incorporated by reference therein identify important risks and uncertainties affecting our future, which could cause actual results to differ materially from the forward-looking statements made or included in this Supplement and the Prospectus. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events.

AMENDMENT OF CERTAIN NOVEMBER 2017 COMMON STOCK PURCHASE WARRANTS AND REDUCTION OF CONVERSION PRICE OF SERIES F CONVERTIBLE PREFERRED STOCK

In connection with Company's underwritten public offering of common stock pursuant to an underwriting agreement between the Company and Ladenburg Thalmann & Co. Inc., dated as of June 29, 2018 (the "June 2018 Offering"), the Company entered into letter agreements ("Warrant Reprice Agreements") with certain institutional investors who purchased warrants in the November 2017 Offering ("November 2017 Warrants"). Pursuant to such Warrant Reprice Agreements, in consideration for participation in the June 2018 Offering, the Company agreed to (i) reduce the per share exercise price of certain November 2017 Warrants held by such investors from \$4.50 to \$2.12 (the "Repriced Warrants") and (ii) extend the expiration date of the Repriced Warrants that currently expire on November 27, 2018 to November 27, 2019, with such amendments to be effective concurrently with the closing of the June 2018 Offering. Accordingly, the exercise price of the Repriced Warrants was reduced from \$4.50 to \$2.12 per share of common stock and the expiration date of the Repriced Warrants that are Series 1 warrants was extended to November 27, 2019, in each case, upon the closing of the June 2018 Offering on July 3, 2018. The number of shares underlying the Repriced Warrants has not changed. The Repriced Warrants are exercisable for 7,760,400 shares of common stock in the aggregate, of which, following such amendment, half expire on November 27, 2019 (Series 1 warrants) and half expire on November 27, 2024 (Series 2 warrants).

Pursuant to the terms set forth in the Certificate of Designations of Preferences, Rights and Limitations of the Company's Series F Convertible Preferred Stock (the "Preferred Stock"), such Preferred Stock is subject to full-ratchet anti-dilution protection in the event the Company sells common stock at a price lower than the then-conversion price of the Preferred Stock. As a result of the June 2018 Offering, the conversion price of the Preferred Stock was reduced from \$4.50 to \$2.12, the per share price to public in the June 2018 Offering, upon the closing of the June 2018 Offering on July 3, 2018. As of June 27, 2018, 610 shares of Preferred Stock were outstanding and convertible into 287,920 shares of common stock, following such conversion price adjustment.

This Supplement is being filed to reflect the reduction in the exercise price and extension of the expiration date of certain November 2017 Warrants and the reduction in the conversion price of the Preferred Stock, in each case, effective July 3, 2018, as described above. The form of Warrant Reprice Agreement was filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on June 29, 2018.

The date of this prospectus supplement is July 3, 2018.
