HEART FAILURE MANAGEMENT SYSTEM

ZOLL®

Non-invasive technology for fluid management following an acute decompensation event

38% REDUCTION
in 90-day hospital readmissions[1]

Heart Failure Readmissions Are On the Rise

Annual hospitalizations for heart failure exceed

1M PATIENTS WITH 90% DUE TO FLUID OVERLOAD[2,3]

~1 in 3 heart failure patients are **READMITTED WITHIN 3 MONTHS[4]**

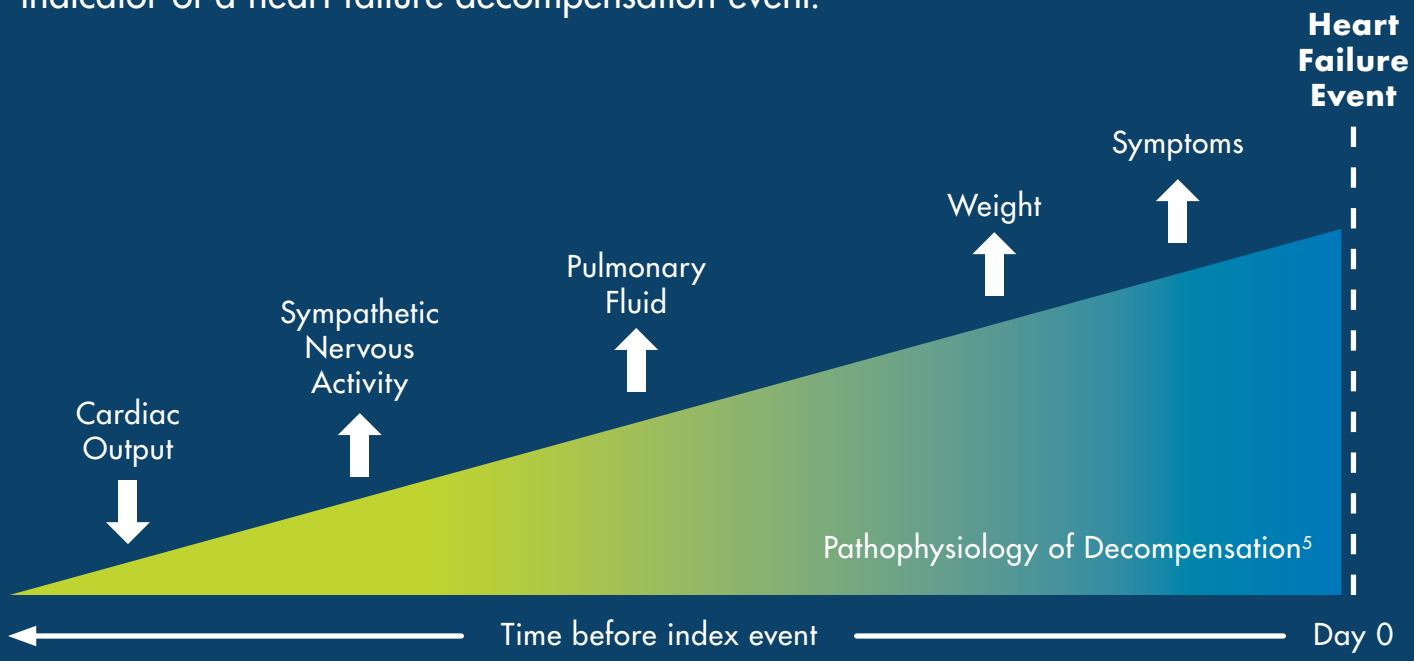
ZOLL® Heart Failure Management System (HFMS)*

ZOLL HFMS is a non-invasive, patch-based device that uses novel radiofrequency technology for early detection of changes in pulmonary fluid levels, an increase of which is an early indicator of heart failure decompensation.

ZOLL HFMS also records, stores, and transmits additional patient data that can be used to inform care plans, including heart rate, respiration rate, activity, posture, and heart rhythm (ECG).

Early Detection

Pulmonary fluid can accumulate days before patients experience noticeable symptoms, and can be an early indicator of a heart failure decompensation event.[5]



Improved Outcomes

Clinical research demonstrated the impact of utilizing ZOLL HFMS for fluid management following an acute decompensation event:

38%
REDUCTION
in 90-day hospital readmissions[1]
(p=0.03)

Learn more about the HFMS clinical results

Patient Profile

ZOLL HFMS may benefit patients who:

- Have had an acute event for volume overload and have been effectively diuresed, are now stable, and will benefit from remote pulmonary fluid management to predictively prevent a recurrent hospitalization
- Have intermittent and/or poorly controlled dyspnea, orthopnea, edema, or other fluid overload-related symptoms
- Require GDMT pharmaceutical titration to control fluid overload

ZOLL HFMS may not benefit patients who:

- Are currently experiencing symptomatic volume overload and/or are considered "wet"
- Have their fluid status being actively monitored by an implanted device
- Do not meet indications for use[†]

Care Pathway

From prescription to timely alerts, ZOLL supports every step of the process so that your team can focus on optimizing care and improving outcomes.

1 PRESCRIPTION

You determine that a patient would benefit from remote fluid management following an acute decompensation event and prescribe ZOLL HFMS.

2 SET UP

ZOLL ships the device to the patient and contacts them directly to help them set up the device. Patients can call a ZOLL representative for help 24 hours a day, seven days a week.

3 MONITORING

ZOLL HFMS is a patch with a water-resistant sensor. Patients can wear the device 24 hours a day for the prescribed duration of monitoring. Data flows back to ZOLL via the cellular-enabled Gateway, allowing for monitoring of the patient's pulmonary fluid status.

Gateway device

4 DATA

Proprietary algorithms determine patient-specific trends in data, before signs and symptoms begin, allowing for early detection of deterioration in the patient's condition. Certified technicians from ZOLL's Independent Diagnostic Testing Facility (IDTF) monitor and analyze the patient's data.

5 ALERTS

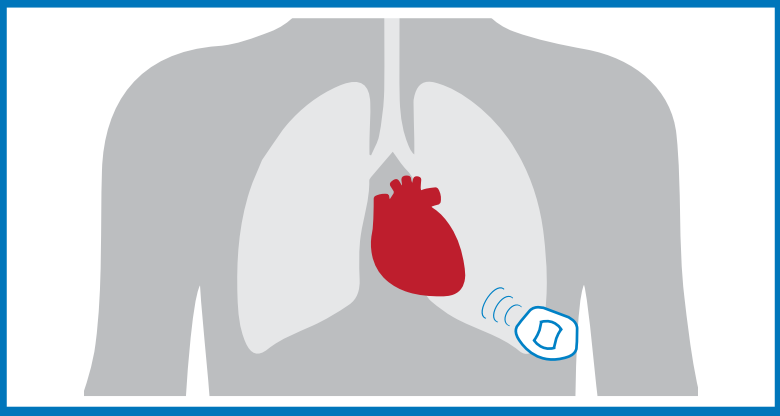
ZOLL provides timely notifications to the designated physician according to predefined criteria. The data aids in the diagnosis and identification of various clinical conditions, events and/or trends, allowing for timely intervention.

How ZOLL HFMS Works

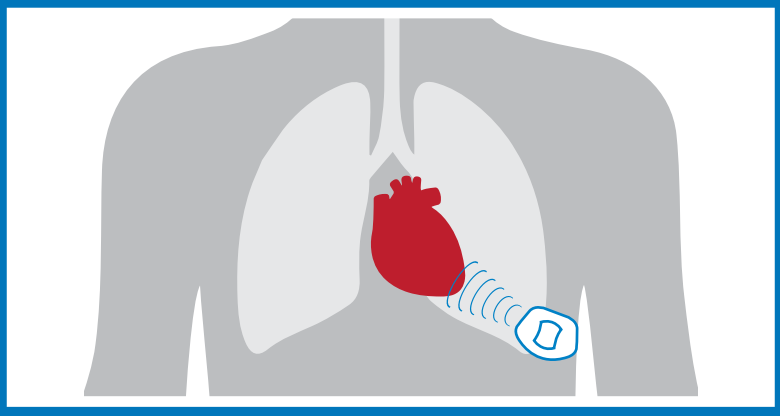
ZOLL HFMS is a non-invasive, patch-based device that uses novel radiofrequency technology for early detection of changes in pulmonary fluid levels, an increase in which is an early indicator of heart failure decompensation.

- Radar waves can be used to measure interstitial edema, an early sign of heart failure
- Changes in signal path delay and strength indicate changes in fluid
- Waves are highly modulated by tissue hydration, producing a very sensitive, robust measurement known as Thoracic Fluid Index (TFI)

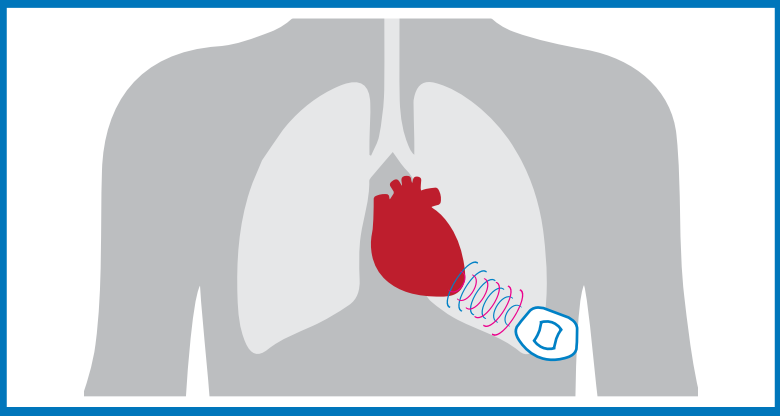
1 Antenna emits RF signals



2 Signals propagate through lungs



3 Signals reflected back to the device



ZOLL Cardiac Management Solutions

At ZOLL, we're passionate about improving patient outcomes and helping save lives. Our portfolio includes solutions for sudden cardiac death risk management, acute heart failure management, post-myocardial infarction (MI) care management, arrhythmia diagnosis and management, and sleep apnea diagnosis. Talk to your representative to learn how we can support your cardiac care efforts across a broad set of patient types.

ZOLL HEART FAILURE MANAGEMENT SYSTEM

Scan to learn more and watch a video.

For more information:

Contact ZOLL at 1-888-592-3798
or CardiacDiagnostics@zoll.com

*FDA registered name: µCor Heart Failure and Arrhythmia Management System

**ZOLL HFMS is indicated for use in outpatient and home settings. Prescription may occur while patient is admitted but patient monitoring should begin post-discharge.

†See ZOLL µCor Heart Failure and Arrhythmia Management System Clinical Manual for Indications for Use.

1. Boehmer J, et al. Impact of Heart Failure Management Using Thoracic Fluid Monitoring From a Novel Wearable Sensor: Results of the Benefits of Microcor (µCor™) in Ambulatory Decompensated Heart Failure (BMAD) Trial. Presented as Late Breaking Clinical Trial at the 2023 American College of Cardiology Annual Scientific Session, March 6, 2023.
2. Costanzo MR, Ronco C, Abraham WT, et al. Extracorporeal Ultrafiltration for Fluid Overload in Heart Failure: Current Status and Prospects for Further Research. *J Am Coll Cardiol.* 2017;69(19):2428-2445.
3. Fonarow GC, Abraham WT, Albert NM, et al. Factors identified as precipitating hospital admissions for heart failure and clinical outcomes: findings from OPTIMIZE-HF. *Arch Intern Med.* 2008;168(8):847-854.
4. Khan MS, Sreenivasan J, Lateef N, et al. Trends in 30- and 90-Day Readmission Rates for Heart Failure. *Circ Heart Fail.* 2021;14(4):e008335.
5. Adamson PB. Pathophysiology of the transition from chronic compensated and acute decompensated heart failure: new insights from continuous monitoring devices. *Curr Heart Fail Rep.* 2009 Dec;6(4):287-92.

ZCDM-0018 Rev 2

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