

PHILIPS

SENC & MyoStrain

MR Clinical applications

Rapidly identifying asymptomatic patients at risk of heart failure¹

Traditional diagnostics lack the visibility needed to see the effects of cardiac treatment or detect dysfunction before symptoms occur. By combining the Philips MRI acquisition sequence Fast-SENC with the analysis tool MyoStrain by Myocardial Solution, early and subtle changes in the heart function can be directly measured.

The Fast-SENC sequence uses through-plane spatial modulation of magnetization and therefore enables pixel-wise strain measurement inside the heart muscle. The data is then being processed and analyzed with MyoStrain software which generates a clinical report.

The clinical report provides a health score, an accurate and reliable measure of heart function, identifying people suffering from heart dysfunction. Healthy LV myocardium is quantified in a single percentage number¹. This helps physicians detect heart dysfunction early and individualize treatment to prevent and manage heart failure. Philips provides strain-encoded (Fast-SENC) time resolved images from which the quantitative strain information per voxel can be extracted². With the combination of Philips Fast-SENC and MyoStrain early dysfunction of heart failure can be detected across 48 segments of the heart³ in 10 minutes.



MyoStrain directly quantifies intramyocardial subclinical segmental dysfunction⁴
MyoHealth™ Risk Score

(Percent of Normal Segments to Total LV Segments)

¹ Montenbruck M, et al. ESC Congress 2019. nr P600

² Using third party Myocardial Solutions (MyoStrain) software

³ Korosoglou G, et al. ESC Heart Failure. 2019 Aug;6(4):548-602

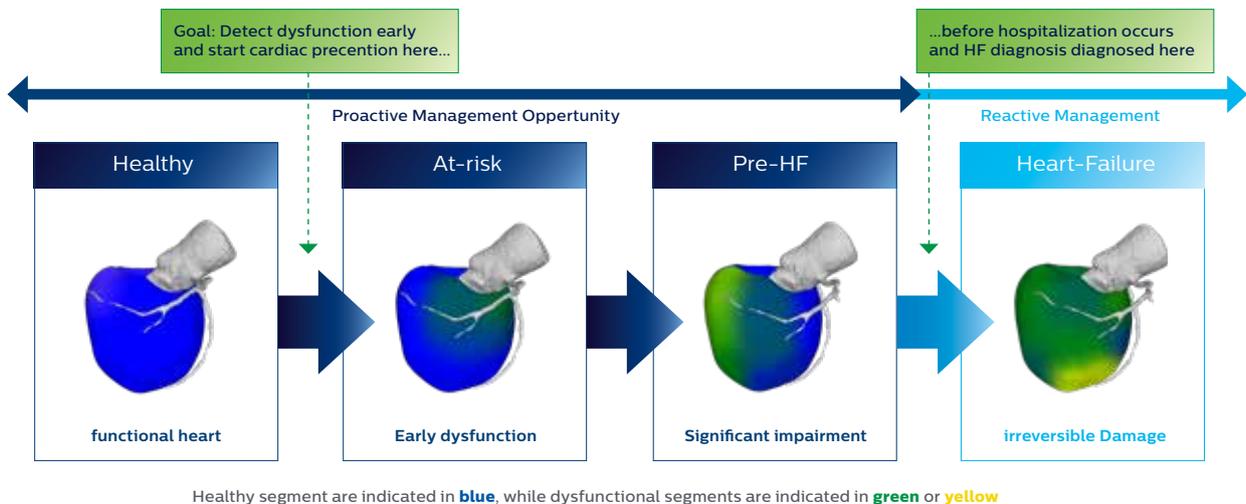
⁴ Korosoglou G, et al. JACC Cardiovasc Imaging. 2021;Jan 4: S1936-878X(20)31004-4. DOI: (10.1016/j.jcmg.2020.10.024)

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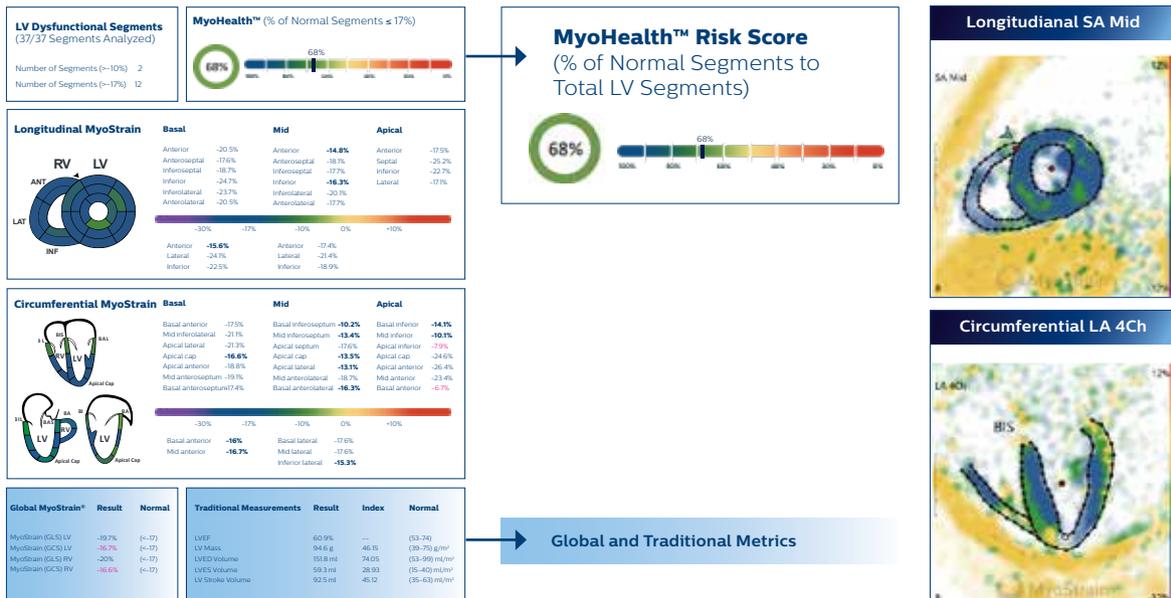
Field strength	Digital 1.5T and 3.0T systems
Prerequisite	SW level R5.6 and DDAS operating system
Main applications	Cardiac
Speed	12-heartbeat MRI scan ¹ < 10-minute exam time ¹ < 5-minute analysis time ¹
Sequence	SENC - uses through-plane spatial modulation of magnetization
Output	Data format compatible with MyoStrain [®] software ² for generation of clinical report

1 © Myocardial Solutions, Inc. 2020. All rights reserved.

2 Using third party Myocardial Solutions (MyoStrain) software, currently available for UK and US only



Healthy segment are indicated in **blue**, while dysfunctional segments are indicated in **green** or **yellow**



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