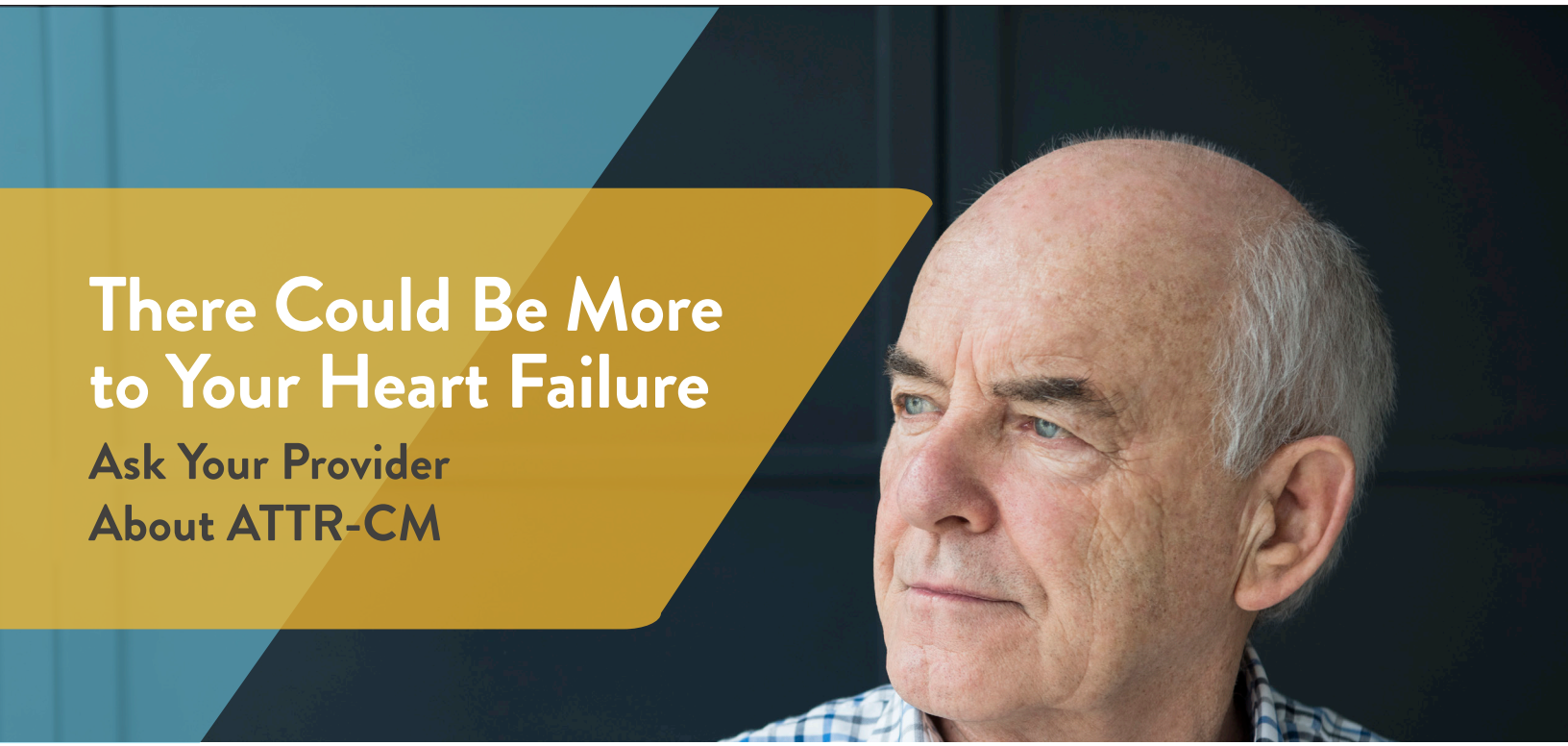

There Could Be More to Your Heart Failure

Ask Your Provider About ATTR-CM

ATTR-CM (Amyloidosis with Cardiomyopathy) is a rare, serious, underrecognized, and underdiagnosed type of amyloidosis that affects your heart and is associated with heart failure.[1,2]

ATTR-CM symptoms may include:

- **Heart failure with preserved ejection fraction**[1]
- **Irregular heartbeat**[3]
- **Fatigue**[4]
- **Feeling dizzy or lightheaded**[4]
- **Shortness of breath**[4,5]
- **Gastrointestinal issues, such as nausea, diarrhea, or constipation**[3,6]
- **Pain or numbness in your lower back or legs, which may be caused by lumbar spinal stenosis, or narrowing of the lower part of the spine)**[7]
- **Decreased or strange tingling sensation or pain in your toes or feet**[3,4]
- **Swelling in your legs or ankles (peripheral edema)**[4,8]
- **Bilateral carpal tunnel syndrome**[3,7]

Want to learn more?

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- **Visit YourHeartsMessage.com**
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1. Open your smartphone's camera app
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References: 1. Maurer MS, Elliott P, Comenzo R, Semigran M, Rapezzi C. Addressing common questions encountered in the diagnosis and management of cardiac amyloidosis. *Circulation*. 2017;135(14):1357-1377. doi:10.1161/CIRCULATIONAHA.116.024438 **2.** Witteles RM, Bokhari S, Damy T, et al. Screening for transthyretin amyloid cardiomyopathy in everyday practice. *JACC Heart Fail.* 2019;7(8):709-716. doi:10.1016/j.jchf.2019.04.010 **3.** Nativi-Nicolau J, Maurer MS. Amyloidosis cardiomyopathy: update in the diagnosis and treatment of the most common types. *Curr Opin Cardiol.* 2018;33(5):571-579. doi:10.1097/HCO.0000000000000547 **4.** Maurer MS, Bokhari S, Damy T, et al. Expert consensus recommendations for the suspicion and diagnosis of transthyretin cardiac amyloidosis. *Circ Heart Fail.* 2019;12(9):e006075. doi:10.1161/CIRCHEARTFAILURE.119.006075 **5.** Bishop E, Brown EE, Fajardo J, Barouch LA, Judge DP, Halushka MK. Seven factors predict a delayed diagnosis of cardiac amyloidosis. *Amyloid.* 2018;25(3):174-179. doi:10.1080/13506129.2018.1498782 **6.** Coelho T, Maurer MS, Suhr OB. THAOS – The Transthyretin Amyloidosis Outcomes Survey: initial report on clinical manifestations in patients with hereditary and wild-type transthyretin amyloidosis. *Curr Med Res Opin.* 2013;29(1):63-76. doi:10.1185/03007995.2012.754348 **7.** Nativi-Nicolau JN, Karam C, Khella S, Maurer MS. Screening for ATTR amyloidosis in the clinic: overlapping disorders, misdiagnosis, and multiorgan awareness. *Heart Fail Rev.* 2022;27(3):785-793. doi:10.1007/s10741-021-10080-2

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How ATTR-CM Affects the Body

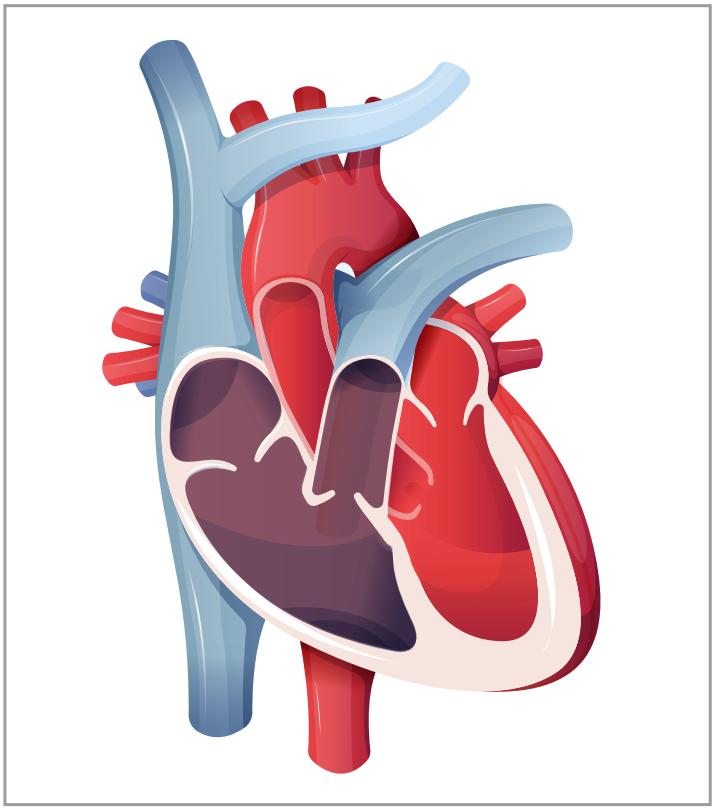
ATTR-CM is a type of amyloidosis with cardiomyopathy that affects your heart (called cardiac amyloidosis). Amyloidosis (pronounced am-uh-loy-doh-sis) is a disease where **abnormal proteins** (called amyloid) build up in certain places in your body, like your liver or heart, and may cause these organs to not work correctly.[1,2]

Amyloidosis can affect your whole body or just a certain part of it. It cannot be cured and may get worse over time.[1,3,4]

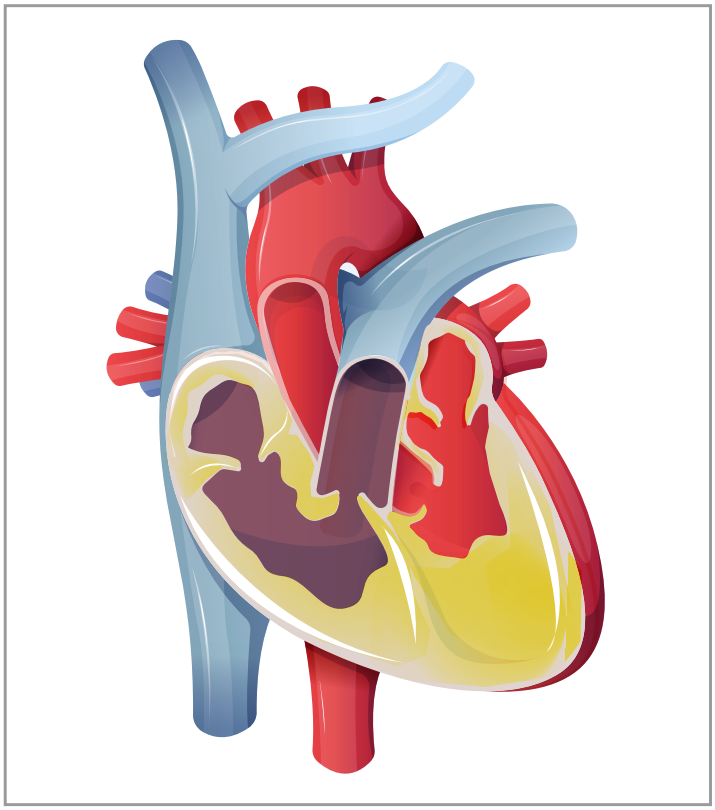
The 2 most common types of cardiac amyloidosis are **light-chain amyloidosis (AL)** and **ATTR-CM**.[4]

Here's what happens in your heart with ATTR-CM

Over time, the amyloid buildup in your heart causes it to get thick and stiff. This makes it harder for your heart to pump blood and eventually leads to heart failure.[5]



Healthy heart



Heart with ATTR-CM

References: 1. Maurer MS, Elliott P, Comenzo R, Semigran M, Rapezzi C. Addressing common questions encountered in the diagnosis and management of cardiac amyloidosis. *Circulation.* 2017;135(14):1357-1377. doi:10.1161/CIRCULATIONAHA.116.024438 **2.** Kourelis TV, Gertz MA. Improving strategies for the diagnosis of cardiac amyloidosis. *Expert Rev Cardiovasc Ther.* 2015;13(8):945-961. doi:10.1586/14779072.2015.1069181 **3.** Siddiqi OK, Ruberg FL. Cardiac amyloidosis: An update on pathophysiology, diagnosis, and treatment. *Trends Cardiovasc Med.* 2018;28(1):10-21. doi:10.1016/j.tcm.2017.07.004 **4.** Donnelly JP, Hanna M. Cardiac amyloidosis: an update on diagnosis and treatment. *Cleve Clin J Med.* 2017;84(12 suppl 3):12-26. doi:10.3949/ccjm.84.s3.02 **5.** Witteles RM, Bokhari S, Damy T, et al. Screening for transthyretin amyloid cardiomyopathy in everyday practice. *JACC Heart Fail.* 2019;7(8):709-716. doi:10.1016/j.jchf.2019.04.010

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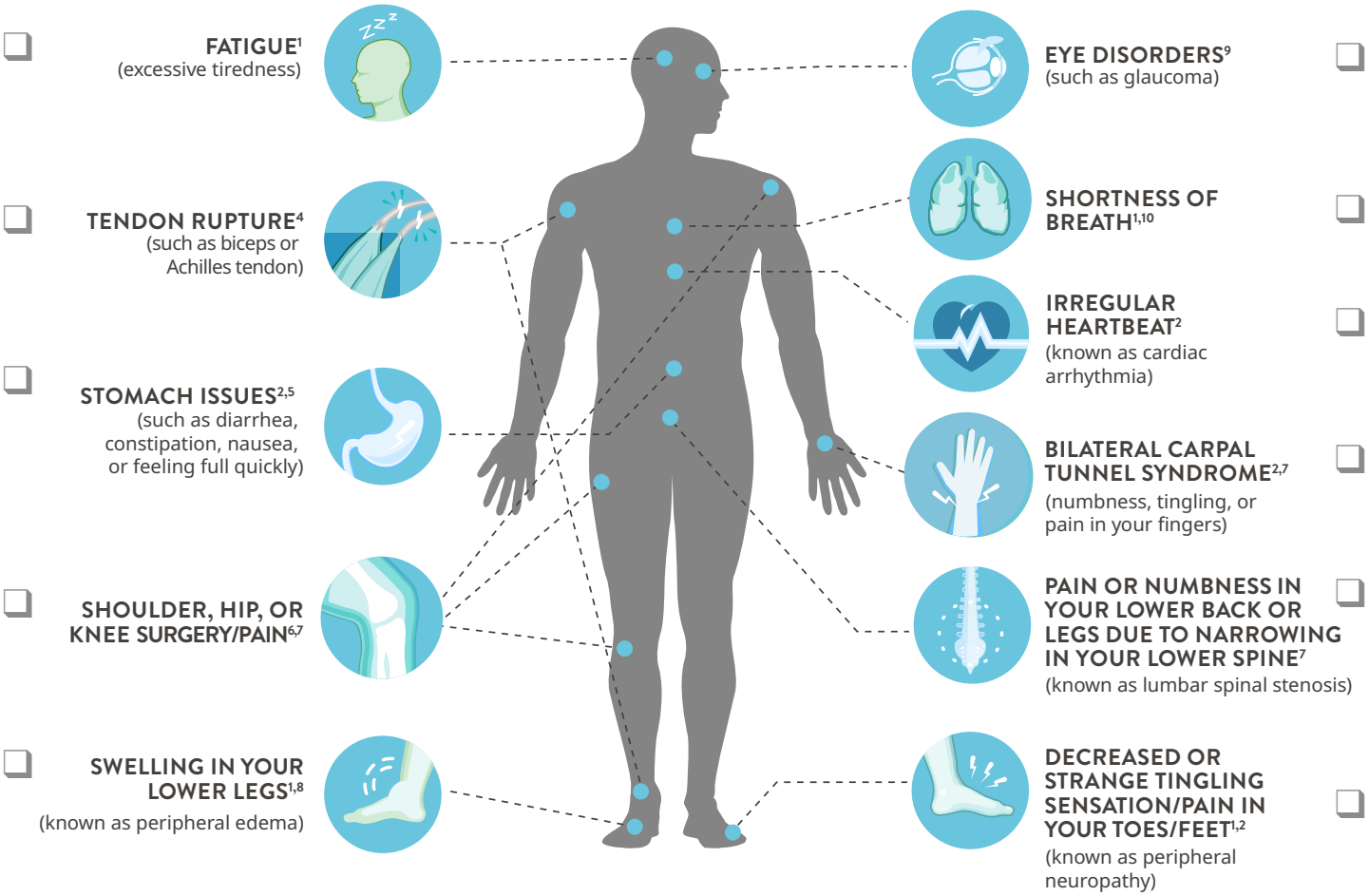
Understand the Signs and Symptoms of ATTR-CM

Many of the symptoms of ATTR-CM are like those of more common causes of heart failure. But did you know that some seemingly unrelated signs and symptoms could be caused by ATTR-CM? Your body may be sending you a message.[1-3]

ATTR-CM symptoms may include:

- ❑ **FATIGUE**[1] (excessive tiredness)
- ❑ **TENDON RUPTURE**[4] (such as biceps or Achilles tendon)
- ❑ **STOMACH ISSUES**[2,5] (such as diarrhea, constipation, nausea, or feeling full quickly)
- ❑ **SHOULDER, HIP, OR KNEE SURGERY/PAIN**[6,7]
- ❑ **SWELLING IN YOUR LOWER LEGS**[1,8] (known as peripheral edema)
- ❑ **EYE DISORDERS**[9] (such as glaucoma)
- ❑ **SHORTNESS OF BREATH**[1,10]
- ❑ **IRREGULAR HEARTBEAT**[2] (known as cardiac arrhythmia)
- ❑ **BILATERAL CARPAL TUNNEL SYNDROME**[2,7] (numbness, tingling, or pain in your fingers)
- ❑ **PAIN OR NUMBNESS IN YOUR LOWER BACK OR LEGS DUE TO NARROWING IN YOUR LOWER SPINE**[7] (known as lumbar spinal stenosis)
- ❑ **DECREASED OR STRANGE TINGLING SENSATION/PAIN IN YOUR TOES/FEET**[1,2] (known as peripheral neuropathy)



These examples are for illustrative purposes only. Signs and symptoms may vary from patient to patient.

If you have heart failure and experience any of these symptoms, talk to your cardiologist about ATTR-CM. The more your doctor knows about what you are experiencing, the better they can help you get many of the answers you need.

References: 1. Maurer MS, Bokhari S, Damy T, et al. Expert consensus recommendations for the suspicion and diagnosis of transthyretin cardiac amyloidosis. *Circ Heart Fail.* 2019;12(9):e006075. doi:10.1161/CIRCHEARTFAILURE.119.006075 **2.** Nativi-Nicolau J, Maurer MS. Amyloidosis cardiomyopathy: update in the diagnosis and treatment of the most common types. *Curr Opin Cardiol.* 2018;33(5):571-579. doi:10.1097/HCO.0000000000000547 **3.** Rapezzi C, Quarta CC, Riva L, et al. Transthyretin-related amyloidoses and the heart: a clinical overview. *Nat Rev Cardiol.* 2010;7(7):398-408. doi:10.1038/nrcardio.2010.67 **4.** Geller HI, Singh A, Alexander KM, Mirto TM, Falk RH. Association between ruptured distal biceps tendon and wild-type transthyretin cardiac amyloidosis. *JAMA.* 2017;318(10):962-963. doi:10.1001/jama.2017.9236 **5.** Coelho T, Maurer MS, Suhr OB. THAOS – The Transthyretin Amyloidosis Outcomes Survey: initial report on clinical manifestations in patients with hereditary and wild-type transthyretin amyloidosis. *Curr Med Res Opin.* 2013;29(1):63-76. doi:10.1185/03007995.2012.754348 **6.** Rubin J, Alvarez J, Teruya S, et al. Hip and knee arthroplasty are common among patients with transthyretin cardiac amyloidosis, occurring years before cardiac amyloid diagnosis: can we identify affected patients earlier? *Amyloid.* 2017;24(4):226-230. doi:10.1080/13506129.2017.1375908 **7.** Nativi-Nicolau JN, Karam C, Khella S, Maurer MS. Screening for ATTR amyloidosis in the clinic: overlapping disorders, misdiagnosis, and multiorgan awareness. *Heart Fail Rev.* 2022;27(3):785-793. doi:10.1007/s10741-021-10080-2 **8.** Ruberg FL, Berk JL. Transthyretin (TTR) cardiac amyloidosis. *Circulation.* 2012;126(10):1286-300. doi:10.1161/CIRCULATIONAHA.111.078915 **9.** Maurer MS, Elliott P, Merlini G, et al; ATTR-ACT Study Investigators. Design and rationale of the phase 3 ATTR-ACT clinical trial (Tafamidis in Transthyretin Cardiomyopathy Clinical Trial). *Circ Heart Fail.* 2017;10(6):e003815. doi:10.1161/CIRCHEARTFAILURE.116.003815 **10.** Bishop E, Brown EE, Fajardo J, Barouch LA, Judge DP, Halushka MK. Seven factors predict a delayed diagnosis of cardiac amyloidosis. *Amyloid.* 2018;25(3):174-179. doi:10.1080/13506129.2018.1498782

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Talk to Your Doctor

Advocating for yourself or a loved one with the disease can help you get many of the answers you need

The road to an ATTR-CM diagnosis can be complex and frustrating[1,2]

Awareness among patients, and even physicians, remains low, which results in ATTR-CM being significantly underdiagnosed.[2,3]

- **Underdiagnosis** and **delayed diagnosis** occur because the symptoms of ATTR-CM mimic those of other more common causes of heart failure[1,4,5]
- Some ATTR-CM patients report visiting up to **5 different doctors** before receiving the correct diagnosis[6]

It’s important to talk to your doctor if you suspect ATTR-CM.

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