

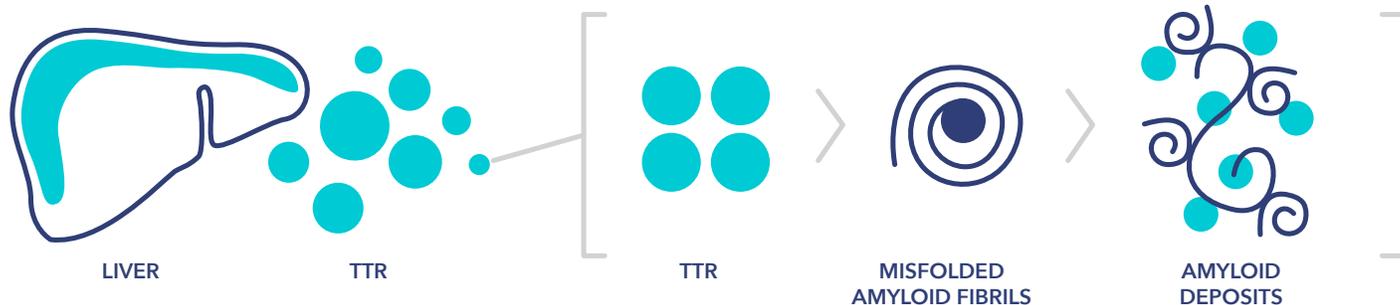
HEREDITARY ATTR AMYLOIDOSIS: AN INHERITED CONDITION¹⁻³

How hATTR amyloidosis develops^{4,5}

Hereditary transthyretin-mediated (hATTR) amyloidosis is an autosomal dominant disease caused by a mutation in the transthyretin (TTR) gene.⁴



Share this information with
your healthcare provider.



TTR protein is primarily synthesized in the liver and is secreted as a tetramer.

In hATTR amyloidosis, the tetramer becomes destabilized, dissociating into monomers. TTR monomers misfold and aggregate into amyloid deposits.

Amyloids are deposited at multiple sites in the body, causing damage that leads to clinical symptoms.

Recognizing red-flag symptoms of hATTR amyloidosis

hATTR amyloidosis is a life-threatening, multisystem disease. Because hATTR amyloidosis affects multiple organs, patients can present with a range of sensory, motor, autonomic, and cardiac symptoms.⁶⁻⁸



Sensory-motor neuropathy^{4,8}

- Pain, tingling
- Altered sensation
- Bilateral carpal tunnel syndrome
- Weakness
- Difficulty walking



Autonomic neuropathy^{4,8}

- Orthostatic hypotension
- Diarrhea, constipation, nausea and vomiting
- Unintentional weight loss



Cardiac manifestations^{8,9}

- Conduction abnormalities
- Arrhythmias
- Heart failure



Additional Signs^{8,9}

- Rapid symptom progression
- Family history of symptoms
- Failure to respond to immunomodulatory treatment
- Intolerance of commonly used cardiovascular medications



Confirming a diagnosis of hATTR amyloidosis

When you suspect hATTR amyloidosis, the diagnostic process may include^{4,10}:

- Neurologic and/or cardiac examination
- Genetic testing
- Tissue biopsy
- Identification of the amyloid protein



Learn more about red-flag symptoms, diagnostic tools, and differential diagnoses at www.hATTRamyloidosis.com.

Alnylam offers third-party genetic screening and counseling programs at no charge for patients who may have hATTR amyloidosis

Genetic testing and counseling may help:

- Identify risk of disease for patients and their family members
- Shorten the time to diagnosis and prevent misdiagnoses
- Help patients consider clinical trials
- Provide information about support resources such as patient advocacy organizations

AlnylamAct 
www.AlnylamAct.com

The Alnylam Act[®] program was developed to reduce barriers to genetic testing and counseling to help people make more informed decisions about their health. While Alnylam provides financial support for this program, tests and services are performed by independent third parties. Healthcare professionals must confirm that patients meet certain criteria to use the program. Alnylam receives de-identified patient data from this program, but at no time does Alnylam receive patient identifiable information. Alnylam receives contact information for healthcare professionals who use this program. Genetic testing is available in the U.S. and Canada. Genetic counseling is only available in the U.S. Healthcare professionals who use this program have no obligation to recommend, purchase, order, prescribe, promote, administer, use or support any Alnylam product.

References: 1. Adams D, Coelho T, Obici L, et al. *Neurology*. 2015;85(8):675-682. 2. Hanna M. *Curr Heart Fail Rep*. 2014;11(1):50-57. 3. Mohty D, Damy T, Cosnay P, et al. *Arch Cardiovasc Dis*. 2013;106(10):528-540. 4. Ando Y, Coelho T, Berk JL, et al. *Orphanet J Rare Dis*. 2013;8:31. 5. Gertz MA. *Am J Manag Care*. 2017;23(suppl 7):S107-S112. 6. Swiecicki PL, Zhen DB, Mauermann ML, et al. *Amyloid*. 2015;22(2):123-131. 7. Coutinho P, Martins da Silva A, Lopes Lima JL, et al: *Excerpta Medica*; 1980:88-98. 8. Conceição I, González-Duarte A, Obici L, et al. *J Peripher Nerv Syst*. 2016;21(1):5-9. 9. Dharmarajan K, Maurer MS. *J Am Geriatr Soc*. 2012;60(4):765-774. 10. Adams D, Suhr OB, Hund E, et al. *Curr Opin Neurol*. 2016;29(suppl 1):S14-S26.