

MLD can progress rapidly¹ – don't miss the symptoms

MLD – an unrelenting neurodegenerative disease

Metachromatic leukodystrophy (MLD) is a rare, life-threatening, inherited neurometabolic disease that results in intralysosomal sulfatide accumulation, which causes demyelination and progressive neurodegeneration.^{2,3} MLD is caused by mutations in the *ARSA* gene resulting in functional deficiency of arylsulfatase A (ARSA), a lysosomal enzyme.²

Know the signs and symptoms of MLD

MLD has a heterogeneous clinical presentation.^{1,3}

Symptoms can include¹⁴

- Developmental delay
- Hypotonia
- Clumsiness
- Ataxia
- Psychomotor regression
- Nystagmus
- Esotropia
- Impaired speech
- Spasticity
- Seizures

Patient with MLD, diagnosed at age 6



Presymptomatic



Progressive disease

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MLD results in progression to a decerebrated state and eventually to death, typically as a result of an infection such as pneumonia.⁵

References: 1. Gieselmann V, Krägeloh-Mann I. Metachromatic leukodystrophy: an update. *Neuropediatrics*. 2010;41(1):1-6. doi:10.1182/blood-2016-01-688226. 2. Rosenberg JB, Kaminsky SM, Aubourg P, Crystal RG, Sondhi D. Gene therapy for metachromatic leukodystrophy. *J Neurosci Res*. 2016;94(11):1169-1179. doi:10.1002/jnr.23792. 3. Patil SA, Maegawa GHB. Developing therapeutic approaches for metachromatic leukodystrophy. *Drug Des Devel Ther*. 2013;7:729-745. doi:10.2147/DDDT.S15467. 4. Jabbehdari S, Rahimian E, Jafari N, Sanii S, Khayat-zadeh Kakhki S, Nejad Biglari H. The clinical features and diagnosis of metachromatic leukodystrophy: a case series of Iranian pediatric patients. *Iran J Child Neurol*. 2015;9(3):57-61. 5. Wang RY, Bodamer OA, Watson MS, Wilcox WR; for ACMG Work Group on Diagnostic Confirmation of Lysosomal Storage Diseases. Lysosomal storage diseases: diagnostic confirmation and management of presymptomatic individuals. *Genet Med*. 2011;13(5):457-484. doi:10.1097/GIM.0b013e318211a7e1.