

**Major musculoskeletal manifestations of MPS by type of disorder**<sup>24</sup>

OMIM	Disease	Deficient enzyme	Main storage materials
607014 607015 607016	MPS I (Hurler, Scheie, Hurler/Scheie)	$\alpha$ -iduronidase	Dermatan sulfate, heparan sulfate
309900	MPS II (Hunter)	Iduronate-sulfatase	Dermatan sulfate, heparan sulfate
252900	MPS IIIA (Sanfilippo A)	Heparan N-sulphamidase	Heparan sulfate
252920	MPS IIIB (Sanfilippo B)	$\alpha$ -N-acetylglucosaminidase	Heparan sulfate
252930	MPS IIIC (Sanfilippo C)	Acetyl $\alpha$ -glucosaminidase N-acetyltransferase	Heparan sulfate
252940	MPS IIID (Sanfilippo D)	N-acetylglucosamine-6-sulfatase	Heparan sulfate
253000	MPS IVA (Morquio A)	N-acetylgalactosamine-6-sulfatase	Keratan sulfate, chondroitin 6-sulfate
253010	MPS IVB (Morquio B)	$\beta$ -galactosidase	Keratan sulfate
253200	MPS VI (Maroteaux-Lamy)	N-acetyl galactosamine 4-sulfatase (arylsulfatase B)	Dermatan sulfate
253220	MPS VII (Sly)	$\beta$ -glucuronidase	Dermatan sulfate, heparan sulfate, chondroitin 6-sulfate
601492	MPS IX (Natowicz)	Hyaluronidase	Hyaluronan