M

Myoclonus

Anna DePold Hohler¹ and Marcus Ponce de Leon²

¹Boston University Medical Center, Boston, MA, USA

²Madigan Army Medical Center, Tacoma, WA, USA

Synonyms

[Jerk](#); [Twitch](#)

Definition

Myoclonus is a brief, shock-like, involuntary jerk of a muscle or a group of muscles. Contractions are called positive myoclonus; relaxations are called negative myoclonus. Myoclonic jerks may occur alone or in sequence. They may occur infrequently or many times each minute.

Categorization

Anatomically, myoclonus may originate from lesions of the cortex, subcortex, or spinal cord. Myoclonus may be related to seizures, neoplasm, and neurodegenerative disorders, as a result of toxin exposure, medication side effect, or as a result of renal or hepatic impairment. It may be

seen with hypoxic ischemic events, lipid storage diseases, and spinal cord injury. It may be seen at rest or provoked by movement or sound.

Epidemiology

Myoclonus is a common movement disorder often seen in hospitalized patients related to toxic and metabolic issues.

Natural History

Myoclonus related to a metabolic or medication issue may resolve completely when the underlying issue is corrected. Myoclonus related to a hypoxic ischemic injury or trauma is more refractory to treatment.

Cross-References

► [Corticobasal Degeneration](#)

References and Readings

Obeso, J. A., & Zamarbide, I. (2004). Classification, clinical features, and treatment of myoclonus. In R. L. Watts & W. C. Koller (Eds.), *Movement disorders* (2nd ed., pp. 659–670). New York: McGraw-Hill.