An 18-year-old man with anaplastic oligoastrocytoma was pronounced brain dead based on absent confounding factors, absent brainstem reflexes, apnea with CO₂ challenge, and isoelectric EEG. Plantar flexion, triple flexion response, and undulation toes were noted bilaterally and remained for 32 hours during organ procurement.

Although in our experience toes and legs in patients declared brain dead are mostly immobile after noxious stimulation or plantar stimulation, one study noted retained flexion reflexes in more than 50% of patients. Corticoreticular disconnection may leave disorganized fragments of unisegmental (undulating toes and plantar flexion) or polysegmental (triple flexion response) spinal reflexes.

Alexander Y. Zubkov, MD, PhD, and Eelco F.M. Wijdicks, MD, PhD, Rochester, MN

Disclosure: The authors report no conflicts of interest.

Address correspondence and reprint requests to Dr. Eelco F.M. Wijdicks, 200 First Street SW, Rochester, MN 55901; wijde@mayo.edu.

Plantar flexion and flexion synergy in brain death
Alexander Y. Zubkov and Eelco F.M. Wijdicks

Neurology 2008;70:e74
DOI 10.1212/01.wnl.0000311393.07219.a2

This information is current as of May 5, 2008