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[A Cure for REM Sleep Disorder](#)

The glycine

Nowadays, many people associate REM with the name of a rock band. But how many of you know that REM is actually an acronym for "rapid eye movement", defining a normal stage of sleep. REM sleep in adult humans normally comprises about one quarter of total sleep, meaning 90-120 minutes. During a normal night's sleep, we usually undergo through about 4 or 5 periods of REM sleep; they are shorter at the beginning of the night and longer toward the end. Now, a team at the University of Toronto, in a research published in the "Journal of Neuroscience," has found a potential treatment for REM Sleep Behavior Disorder (RBD). RBD is a neurological disorder characterized by violent twitches and muscle contractions during REM sleep, which can cause severe injuries. The team led by John Peever, Assistant Professor at the University of Toronto, has found that an inhibitory brain chemical named glycine is capable of actively inhibiting the muscle twitches characteristic for the REM sleep. Low levels of glycine in the brain neurons controlling the muscle movement (the so-called motoneurons) were connected to the violent muscle contractions of RBD. "This study shows the mechanism that suppresses muscles twitches in REM sleep and this will lead to better treatments and potential cures for this disorder. Treating REM sleep disorder may have much broader implications, since within five to eight years of being diagnosed with this disorder, 60-80% of individuals eventually develop Parkinson's disease," said Peever. Glycine is an amino-acid common in proteins and extremely abundant (35%) in collagen, a protein found in the skin. This amino acid is the only one that is not optically active. Glycine is involved in neural transmission and the neurons have a glycine receptor protein, which is also sensitive to the metal zinc.