

THE PARADOXES OF PARADOXICAL SLEEP

Summary

Many symptoms of paradoxical sleep (REM, PS) are typical of the waking state, and seem paradoxical to sleep. These symptoms include: cortical activation (though the activation of different cortical areas, mainly the limbic cortex), phasic periods of motor arousal (rapid eye movements, muscle contractions) and activation of the sympathetic nervous system leading to increased blood pressure and

heart rate. Muscle atony and lack of consciousness are the main REM sleep manifestations, which distinguish PS from wakefulness. Regulation of particular components of REM sleep requires cooperation of different neurotransmitter systems and numerous brain structures, which all comprise the PS generating system.