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By: Vlad Tarko, Senior Editor, Sci-Tech News



## **Near-Death Experiences Explained**

### *The connection between near-death experiences and REM intrusion phenomenon*

They are often considered evidences for life after death: some people experiencing near-death events, or which they have interpreted as near-death, sometimes report having felt like being detached from the body and seeing a bright light. Although many consider these experiences to have a psychological explanation and not a mystical one, many neurologists think they are too complex for scientific study. However, Kevin R. Nelson, a neurologist at the University of Kentucky in Lexington, has now found an interesting correlation between near-death experiences and another, less "magic", type of experience: the REM intrusion phenomenon. The REM intrusion consists in having a dream-like episode while being awake. This may occur when people are awake but close of being asleep. For example, people may feel paralyzed when they first wake up, or have visual or auditory hallucinations as they fall asleep or awaken. This phenomenon is clearly psychological and no one claims it needs a supernatural explanation. Dr Nelson surveyed 55 people who had a near-death experience and found that 60 percent of them also experienced REM intrusion at some point in their lives. On the other hand, only 24 percent of the people who haven't had any near-death experiences reported having such REM intrusions. According to Dr. Nelson, this discovery suggests that both REM intrusion and near-death experiences have a common psychological cause, more specifically, a certain disorder of the brain's arousal system. This system regulates the REM sleep (when we are experiencing dreams) but also regulates attention and alertness during waking hours, including the panic reactions of fight-or-flight. In other words, the REM intrusion is similar to the near-death experience - the person perceives the change from sleep to wakefulness, or conversely, as a sort of danger (as if it's near-death). And the near-death experience might be a REM intrusion. During REM sleep, visual centers in the brain are highly active, while the limb muscles are temporarily paralyzed. So it is no wonder that REM intrusion brings visions of light and the paralyzed sensation of "being dead". If near-death experience is in fact a REM intrusion, this also explains why people also have such sensations during a near-death experience. The neurology of the REM intrusion is also known: this phenomenon is triggered by the stimulation of the vagus nerve, which connects the brain stem to the heart, lungs and intestines. One factor that increases the activity in this nerve is the body's panic reaction of "fight-or-flight". Thus, the REM intrusion phenomenon and the near-death experience seem to be caused by a panic reaction in which the person wants to run away but cannot do so for some reason and then it flees into a dream-state while still being awake (unlike narcolepsy, when the person actually falls asleep due to the overwhelming emotion). Because the person isn't asleep (s)he doesn't experience a dream but the bright light and the paralysis sensation. "During a crisis that occurs with REM state intrusion, this lack of muscle tone could reinforce a person's sense of being dead and convey the impression of death to other people," said Nelson.