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## News Release

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### **Navy SEALs' Enhanced Brain Function Key to Stress Control in Extreme Situations**

SAN DIEGO (Mar 7, 2012) – A recent study co-authored by researchers from the Department of Veterans Affairs sheds light on why military special operations forces perform well in extremely stressful situations and provides a better understanding of how to modify regular military training to improve individual performance under extreme conditions.

The article, published in the March 7 issue of NeuroReport, highlights a study comparing brain activity in Navy SEALs with brain activity in healthy male subjects of the same age. The study suggests SEALs are able to achieve peak performance by decreasing the effects of anticipated stresses in their environment through the activation of specific parts of their brains, which control their physiological state.

The researchers used MRI scans to compare brain activity in 10 SEALs and 11 male subjects. They tested each group's ability to anticipate and respond to changing stimuli -- a task which was designed to cause anxiety.

At the completion of the task, the study showed the SEALs were more likely than the other subjects to have activated parts of their brains associated with emotional control centers -- the middle insula and bilateral frontal lobes.

Rather than reacting to the anticipation of a stressful event, SEALs were better able to control emotion and motor function when presented with anticipated changes to their environment.

"This suggests that collectively, elite warriors showed minimal reactivity during negative stimuli and an enhanced ability to efficiently change their physiological state," said Alan Simmons, VA San Diego Healthcare System medical researcher. "These neural changes may underlie their ability to perform well in stressful situations."

For more information on the findings, please visit: <http://bit.ly/wxXxaE>

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