## Our brain is in constant motion—but what makes it tick?

What makes the brain tick? What keeps the constant stream of energy welling up within ourselves when we are alert and awake?

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Researchers now report that the deepest, oldest part of the brain sets the level of activation for the newest part of the brain, the cerebral cortex. Knowing how the brain is engineered paves the way for novel approaches to disorders such as Alzheimer's disease and depression.

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The deep, old parts of the brain, located just above the spinal column and in the center of the brain, collectively known as the basal forebrain, are evolutionarily ancient structures shared by humans with other animals with the same basic brain blueprint.

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Researchers have been interested in a particular part of the basal forebrain, called the "Nucleus Basalis of Meynert" (NBM), as a potential driver of resting state brain networks such as the DMN. While brain networks generate local activity through interactions among the parts making up those networks, they are also dependent upon the background global level of brain activity to stay afloat.

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Future research is being conducted to continue to refine our understanding of how the brain works, how networks of the brain function in relation to anatomical areas and physiological processes, and how basic neuroscience can translate into clinical applications, and possibly human performance enhancement.

Read full, original post: <u>Have Scientists Found the Brain's "Engine"?</u>