## Brain activation: How to help the blind see

[I]n a <u>recent study</u> at Baylor College of Medicine, researchers made the blind see. A team led by neurosurgeon Daniel Yoshor "drew" letters of the alphabet on blind people's brains by giving them specific patterns of electrical zaps. These patterns caused the participants to "see" the letters in their mind's eye. The results could improve medical devices for people who have experienced other types of sensory or motor loss.

The researchers accomplished this by giving patterns of small electrical stimulations to the <u>visual cortex</u>. The visual cortex is one of the hubs in the brain that responds to what we see. This region contains a <u>spatial map</u> of our field of view, meaning particular sets of cells respond to visual information coming from particular locations in our line of sight. Turn on a light on the left side of your field of view, and one set of cells will respond by shooting off an electrical signal. Turn on a light on the right side, and a different set of cells will respond.

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Yoshor's team took advantage of this map in a clever way. Because the cells in the visual cortex respond to patterns of light in space, the scientists could reverse the process — give a tiny electrical zap to a particular group of cells and cause someone to perceive a spot of light at a specific location.

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