

Hologram-like 3-D brain helps researchers decode migraine pain (w/ Video)

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(Medical Xpress)—Wielding a joystick and wearing special glasses, pain researcher Alexandre DaSilva rotates and slices apart a large, colorful, 3-D brain floating in space before him.

Despite the white lab coat, it appears DaSilva's playing the world's most advanced virtual video game. The University of Michigan dentistry professor is actually hoping to better understand how our brains make their own pain-killing chemicals during a [migraine attack](#).

The 3-D brain is a novel way to examine data from images taken during a patient's actual migraine attack, says DaSilva, who heads the Headache and Orofacial Pain Effort at the U-M School of Dentistry and the Molecular and [Behavioral Neuroscience](#) Institute.

Different colors in the 3-D brain give clues about chemical processes happening during a patient's migraine attack using a [PET scan](#), or positron emission tomography, a type of medical imaging.

"This high level of immersion (in 3-D) effectively places our investigators inside the actual patient's brain image," DaSilva said.

The 3-D research occurs in the U-M 3-D Lab, part of the U-M Library.

Provided by University of Michigan

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