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Study: Microsaccades needed for vision

PHOENIX, Jan. 18 (UPI) -- [Vision](#) researchers at the Barrow Neurological Institute say they've resolved a 40-year dispute, finding microsaccades are necessary for vision.

The controversy focused on whether microsaccades -- rapid, but minute, eye movements occurring when a person's gaze is fixated -- are responsible for visibility.

Institute researchers resolved the debate by establishing microsaccades are indeed responsible for driving 80 percent of our visual experience.

Even when eyes are fixated on an object, they continue to make tiny movements called fixational eye movements.

"If our eye was perfectly still during fixation, the world would quickly fade from view due to the fact that the neurons in our eyes and [brain](#) quickly adapt to non-changing stimulation," said lead researcher Dr. Susana Martinez-Conde.

There are three types of fixational eye movements: microsaccades; drifts, which are slow curvy motions occurring between microsaccades; and tremors -- very fast, extremely small eye oscillations superimposed on drifts.

Martinez-Conde said it's crucial scientists know which eye movement is primarily responsible for vision, since we fixate our gaze 80 percent of the time.

The finding also brings new hope to [patients](#) who are blind much of the time due to fixational eye movement problems, she said.

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