

Is stuttering in our DNA?

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Bruce Willis, Marilyn Monroe, and Carly Simon all suffered from stuttering. Today, three million Americans do, too. Most are able to overcome the handicap, which afflicts 5% of all children — but childhood suffering from stuttering can be traumatic, producing educational, social, and occupational disadvantages.

Intriguing new research from a large-scale international project is providing new insight into the disability. Prof. Ehud Yairi, a long-term Visiting Professor at Tel Aviv University's Sackler School of Medicine, Department of Communication Disorders and founder of the Illinois International Stuttering Research Program at the University of Illinois, is among the leaders of the project.

Prof. Yairi and his fellow researchers are now reporting strong evidence for a significant genetic component to stuttering. They've established that the likelihood of both a spontaneous recovery from stuttering and the development of a chronic disorder are genetically linked.

A Personal Matter

Prof. Yairi, who suffered from a severe stutter into early adulthood and still exhibits a mild form of the disorder at the age of 69, first suspected that stuttering had genetic ties in his own family. Before him, his grandfather, father, aunts and cousins — on his father's side had exhibited mild to severe forms of stuttering. "I've become an expert in my own problem," he jokes.

"One of the most important goals for us as researchers is to identify ways for making early prognoses, diagnosing both those children who would exhibit chronic stuttering through their lifetimes and those who would recover naturally," says Prof. Yairi. "This will have huge implications for clinical decisions, both for identifying children at high risk for chronic stuttering, as well as selecting the right timing and type of treatment."

An International Affair

A recent major study supported by NIH took the genetic aspect a step further by geneotyping blood samples collected from Israeli, Swedish, and American families with multiple cases of stuttering. This complex study, headed by Professor Nancy Cox, a team member from the University of Chicago School of Medicine, had a branch in Israel, run by Dr. Ruth Ezrati and Professor Minka Hildesheimer, both associates of Tel Aviv University. The researchers were able to identify areas on several chromosomes which indicated a linkage to stuttering, leading the scientists to hope that identification of specific genes underlying stuttering might be isolated.

These findings were published recently in the *American Journal of Human Genetics* and in the *Journal of Communication Disorders*.

"The data supports our previous conclusions about the role of genetics in stuttering. Progress in this area will produce some of the most important information in this research in decades," says Prof. Yairi.

Intervene Early, But Don't Panic

Though stuttering can affect children of all ages, boys are three times more likely to stutter than girls, says Prof. Yairi. He suggests that parents

take their children to a speech pathologist within one or two months of the onset of a stutter, though long-term stuttering can be diagnosed only after six to 12 months or so from the stuttering onset.

"All kids exhibit some form of repetition when they are learning to talk, so I would inform parents not to panic if they notice a stutter. Stuttering is a common phenomenon, and most children usually recover," says Prof. Yairi. An early alumnus of Tel Aviv University, he studied at both TAU's Department of Psychology and the Department of Middle Eastern and African Studies despite his own severe stutter.

His father, Prof. Yairi notes, had been hoping his son would become an x-ray technician, to avoid having to communicate with people.

Source: American Friends of Tel Aviv University

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