VPS35 GENE INFORMATION

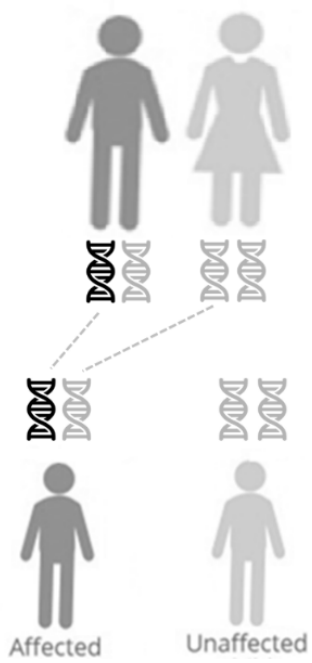
PARKINSON'S DISEASE FACT SHEET

Parkinson's disease is multifactorial in most families; it is likely caused by an interplay of both genetic and environmental factors. A number of genes have been identified as risk factors for Parkinson's disease, with many others likely unknown. This fact sheet outlines basic information about the *VPS35* gene as well as risk to individuals and their relatives. If you have a *VPS35* variant and/or are concerned about your risk, speaking with a genetic counselor can be helpful.

VPS35 Variants

Currently, only one specific variant in the *VPS35* gene, called Asp620Asn, is known to be disease-causing for Parkinson's disease. This variant is associated with classic symptoms of Parkinson's disease, but possibly with an earlier age of onset than average. *VPS35* variants are a rare cause of Parkinson's disease.

VPS35 variants are inherited in an autosomal dominant fashion (see Figure). This means that a person only needs to inherit one *VPS35* gene variant to have Parkinson's disease or the associated risk of Parkinson's disease. This also means that both males and females can pass on and inherit the variant. Each child of a person with a *VPS35* variant has a 50% (or 1 in 2) chance to inherit the variant. Similarly, this individual has a 50% (or 1 in 2) chance to not inherit the variant from their parent. Most individuals with a *VPS35* variant will have an affected parent. However, not everyone with a *VPS35* variant develops Parkinson's disease; this is called incomplete penetrance.



Research Opportunities

Many research studies are interested in enrolling people with *VPS35* variants. This is true whether or not that person or anyone else in their family has Parkinson's disease. Some studies are trying to understand more about the causes of Parkinson's disease. Other studies are working to develop new treatments. Trials of new medications for people with Parkinson's disease and *VPS35* variants are ongoing.

Various research projects at the Indiana University School of Medicine include genetic testing and genetic counseling for Parkinson's disease. These projects enroll volunteers with and without Parkinson's disease. To learn more, please contact our team at wrd@iu.edu or call 888-830-6299.

References

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