

FOR CLINICIANS

Picture PD Aware Information Sheet

Picture Genetics, as a service of Fulgent Genetics, has collaborated with the Parkinson's Foundation to offer commercial testing for Parkinson's specific genes. Fulgent is also the genetic testing provider supporting PD GENERation: Mapping the Future of Parkinson's Disease, sponsored by the Parkinson's Foundation.

Who is Picture Genetics?

Picture Genetics puts patients first by providing at-home, clinical-grade genetic testing products paired with certified genetic counselor guidance. Our test results are designed to be straightforward and clinically actionable. Analysis for Picture Genetics tests is performed at Fulgent Genetics, a CLIA-certified and CAP-accredited diagnostic laboratory working with physicians from more than 700 institutions around the world.

What is the Picture PD Aware test?

Picture PD Aware is a physician-backed, patient-oriented, proactive genetic test that assesses an individual's risk of developing Parkinson's Disease or a related condition. Specifically, Picture PD Aware analyzes 7 genes associated with these conditions. Picture PD Aware is unique in that it can be easily ordered and completed from home, but still includes physician involvement from an independent physician network (PWNHealth) and genetic counseling support for your patient.

Who should order this test?

Picture PD Aware is intended for healthy adults with or without a strong personal or family history of Parkinson's Disease or a related condition. This test helps determine risk for those not already aware of it, or helps give a genetic explanation to those who may be experiencing symptoms. For individuals with clinical signs or symptoms of Parkinson's Disease, we recommend seeking care from a recognized Center of Excellence (<https://www.parkinson.org/search>, 1-800-4PD-INFO) or other neurologist.

What benefits can this test provide?

Picture PD Aware helps define your patient's genetic risks for developing Parkinson's disease or related conditions. Knowing one's genetic risk gives you the power to make more informed decisions for your patient's long-term health. Actionable preventative steps can include diet and lifestyle changes, increased clinical surveillance and monitoring, and pharmacological treatments. Additionally, those who are identified with a genetic variant may be eligible to participate in certain clinical trials (clinicaltrials.gov).

Can insurance help pay for this test?

Picture Genetics currently does not support insurance payments for our tests.

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A snapshot of test specifications

Coverage greater than or equal to 98.5% @ 20x
Turnaround Time 3-5 weeks
Specimen Type Saliva
Genes Tested 7 total (*GBA*, *LRRK2*, *PARK7*, *PINK1*, *PRKN*, *SNCA*, *VPS35*)
Analysis Sequencing & Deletion/Duplication

Reporting

Only variants classified as "Pathogenic" or "Likely Pathogenic" using the ACMG guidelines for sequence variant interpretation will be reported. We will not report Variants of Uncertain Significance (VUS).

Detection rate

A broad range of laboratory and bioinformatic tools are employed to ensure the highest detection rate. Picture PD Aware's analytical detection rate for all genes is greater than or equal to 98.5% @20x.

Test methods

Next-generation sequencing and deletion/duplication analysis

Sequencing reads the DNA code of the selected genes, one base at a time, to determine an individual's sequence. The sequence is then compared to a reference DNA sample to detect any variants found within the patient's DNA. Next-generation sequencing (NGS) is used to analyze exons in multiple genes simultaneously. Picture Genetics uses a sophisticated method that detects sequence changes and deletions/duplications (del/dups) via NGS. Pathogenic variants found by this method are confirmed by Sanger sequencing, MLPA, or quantitative PCR (qPCR).

Test limitations

All laboratory tests have limitations. A positive result does not imply that there are no other mutations in the patient's genome, and negative results do not eliminate the risk for Parkinson's disease or other genetic disorders. Picture PD Aware is not designed to detect somatic mutations. Mutations that are not located in the exons of genes may not be detected by this test.

If you have questions, feel free to call or email us.

PICTURE PD AWARE

Genes and Conditions Tested

Gene / Condition Name

LRRK2 - Autosomal Dominant Parkinson's disease

SNCA - Autosomal Dominant Parkinson's disease; Autosomal Dominant Lewy body dementia

PARK7 - Autosomal Recessive; Early-onset Parkinson's disease

GBA - Autosomal Dominant Parkinson's disease; Autosomal Recessive Gaucher disease

PINK1 - Autosomal Recessive Early-onset Parkinson's disease

PRKN - Autosomal Recessive Juvenile Parkinson's disease

VPS35 - Autosomal Dominant Parkinson's disease