MEDEX
LABORATORIES

PARKINSON-ALZHEIMER DEMENTIA TESTING

WHY CHOOSE MEDEX LABORATORIES

- TARGETED TREATMENTS
- ACCURATE OUTCOMES
- EMR INTEGRATIONS
- ACCEPTS MOST INSURANCES
- PHLEBOTOMIST AVAILABLE
- QUICK TURN AROUND TIME

The reports and content within should be considered referenced suggestions. Ultimately, final medical decisions are made by your respective healthcare provider

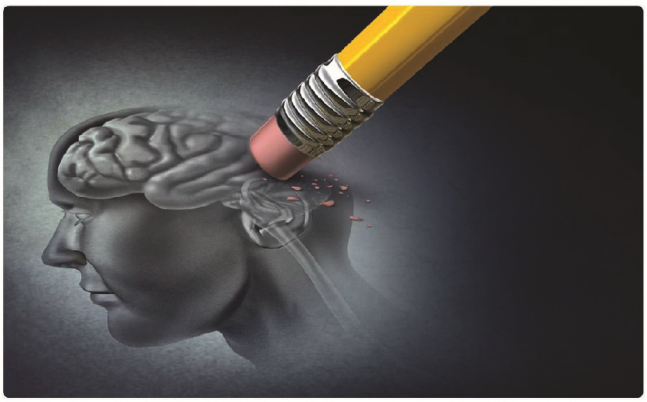
www.medexdiagnosticservices.com

PARKINSON-ALZHEIMER-DEMENTIA TESTING

"An accurate, timely diagnosis of a nonreversible decline in mental function is crucial to ensure a personalized and data-driven treatment plan is provided to the patient. Early-stage support can help avoid unnecessary struggles and expenses associated with missed treatment opportunities."

Medex Laboratories offers the Parkinson-Alzheimer-Dementia (PAD) NGS panel, which examines 118 genes associated with an increased risk of developing neuro-cognitive disorders and detects both the diagnostic and risk factor genes for Alzheimer's disease, Parkinson's disease, and dementia.

While no single test exists to diagnose dementia, PAD testing is an important component in the diagnostic process. Additionally, PAD testing rules out medical conditions that mimic the memory loss symptoms associated with dementia.



Alzheimer's Disease

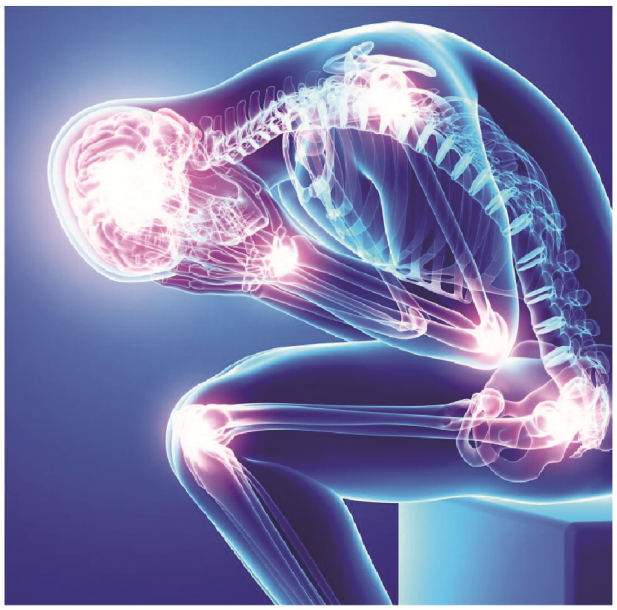
One type of early-onset Alzheimer's disease is known as autosomal dominant Alzheimer's disease, or early-onset familial Alzheimer's disease (FAD), which affects approximately 3-5% of all people with Alzheimer's. What makes this type of early-onset Alzheimer's disease so unusual is that it is caused by a hereditary genetic mutation to one of three genes: PSEN1, PSEN2 or APP Genes that increase the risk of Alzheimer's disease are APOE, TREM2 and NOTCH3.

Parkinson's Disease

As a result of faulty genes being passed to a child by their parents, Parkinson's disease can run in families. Approximately 15% of people with Parkinson's have a family history of this disorder. Familial cases of Parkinson disease can be caused by mutations in the LRRK2, PARK7, PINK1, MAPT, GBA or SNCA gene.

Frontotemporal dementia

Frontotemporal Dementia (FTD) is the most common form of dementia for people under age 60. It represents a group of brain disorders caused by degeneration of the frontal and/or temporal lobes of the brain. FTD's estimated prevalence in the United States is around 60,000 cases, and many in the medical community remain unfamiliar with it. FTD is frequently misdiagnosed as Alzheimer's, depression, Parkinson's disease or a psychiatric condition. On average, it currently takes 3.6 years to get an accurate diagnosis. Up to 40% of patients have a positive family history with a diagnosis of dementia in at least one extra family member. Three major causal genes have been identified: MAPT and GRN.



Alzheimer's and the African-American Population

Alzheimer's disease is more prevalent among African-Americans than non-Hispanic whites, with statistics ranging from 14-100% greater, making it an emerging health crisis and earning the name "The Silent Epidemic"	African-Americans have historically been diagnosed at a later stage of the disease, ultimately dampening the effectiveness of medications and treatments designed for early intervention	The number of African-Americans entering the age of risk will >double to 6.9 million over the next 3 decades

At-risk Patients and Who Should Be Tested-

- High blood pressure
- High cholesterol
- Diabetes
- Genetic etiology

Common Symptoms of Neurodegenerative Disease -

- Changes in mood or personality
- Difficulty having a conversation
- Difficulty completing familiar tasks
- Difficulty moving or controlling one's movement
- Memory loss
- Confusion with time and place
- Abnormal results found with imaging of the brain

Potential Benefits with Identification of the Pathogenic Gene -

- More thorough decision-making process
- Treatment plan development
- Psychosocial counseling
- Participation in a research study
- Family risk assessment

Additional information for your patient

Alzheimer's disease, Parkinson's Disease, and dementia are conditions that affect the brain and spinal cord.

Alzheimer's disease is a degenerative disease of the brain that causes dementia, which is a gradual loss of memory, judgment, and ability to function. This disorder usually appears in people older than age 65, but less common forms of the disease appear earlier in adulthood. Memory loss is the most common sign of Alzheimer's disease. Forgetfulness may be subtle at first, but the loss of memory worsens over time until it interferes with most aspects of daily living. Even in familiar settings, a person with Alzheimer's disease may get lost or become confused. Routine tasks such as preparing meals, doing laundry, and performing other household chores can be challenging. Additionally, it may become difficult to recognize people and name objects. Affected people increasingly require help with dressing, eating, and personal care.

As the disorder progresses, some people with Alzheimer's disease experience personality and behavioral changes and have trouble interacting in a socially appropriate manner. Other common symptoms include agitation, restlessness, withdrawal, and loss of language skills. People with this disease usually require total care during the advanced stages of the disease. Affected individuals usually survive 8 to 10 years after the appearance of symptoms, but the course of the disease can range from 1 to 25 years. Survival is usually shorter in individuals diagnosed after age 80 than in those diagnosed at a younger age. Death usually results from pneumonia, malnutrition, or general body wasting (inanition). Alzheimer's disease can be classified as early-onset or late-onset. The signs and symptoms of the early-onset form appear between a person's thirties and mid-sixties, while the late-onset form appears during or after a person's mid-sixties. The early-onset form is much less common than the late-onset form, accounting for less than 10 percent of all cases of Alzheimer's disease.

Research has shown that these diseases can sometimes be caused by abnormal changes in our genes, and these genetic changes can be inherited and passed down in families. Having a family history of Parkinson's disease, Alzheimer's disease, dementia, or a similar condition may increase your risk of having that condition. There is no cure for Alzheimer's disease, Parkinson's disease, or dementia; however, there are treatments available to provide temporary relief from symptoms.

PANEL GENE LIST:

PLCG2, me TP53INP1, APOE, ANG, SOD1, TOR1A, PRNP, PSEN1, GCH1, PINK1, ARDBP, APTX, Ape PSEN2, PARK2, POLG, OPTN, FUS, SPAST, FIG4, SETX, MAPT, GRN, NOTCH3, LRRK2, ATM, CLU, PICALM, CR1, BIN1, CD33, MS4A4A, MS4A6E, CD2AP, EPHA1 , ABCA7, CASS4, CELF1, FERMT2, INPP5D, MEF2C, NME8, PTK2B, SLC24A4, RIN3, SORL1, ZCWPW1, TREM2, ADAM10, PVRL2, ABI3, CSF1R, TRIP4, VPS35, SNCA, PRKRA, GBA, RAB39B, TMEM230, RAB7L1, VPS13C, PARK7, ATP13A2, PLA2G6, FBXO7, SYNJ1, DNAJC6, SCARB2, CHCHD2,, PANK2, TAF1, GAK, ADORA1, EIF4G1, ATP6AP2, GIGYF2, HTRA2, VCP, PFN1, SQSTM1, UBQLN2, CHMP2B, NEFH, TBK1, NEK1, CHCHD10, TUBA4A, UNC13A, SARM1, C2lorf2, EPHA4, LMNB1, DCTN1, HNRNPA1, FINRNPA2B1, VAPB, ALS2, TMEM106B, RAB38, CTSC, BTNL2, TOMM40, CLCN6, MARK2, MARK4, EP300, AKT1, SGTA, ELAVL1, THAP1, PRRT2, ANO3, TH, ATP1A3, DNMT1, ITM2B, TYROBP

Sqecimen Requirements:
Buccal swab (Wet/Dry) or Extracted DNA (5ug)
Turnaround Time:
3-4 weeks

TEST INFORMATION

Description	Hereditary Mental Disease Panel
Method	Next Generation Sequencing
Specimen Requirements	Buccal swab shipped at room temperature
Turnaround Time	3 to 4 Weeks
Shipping	Pickup/FedEx Service Available Monday - Friday
Testing Performed	Monday - Saturday

Medex Laboratories is a full service, national diagnostic testing laboratory headquartered in Houston, Texas with concentrations in clinical diagnostics, toxicology, genetic sequencing and molecular testing. Medex Laboratories is devoted to redefining diagnostic services by providing medical practitioners and their patients with exceptional customer service paired with the most advanced and informative medical analytics to assist them in making effective treatment decisions.

Medex Laboratories fully automated laboratory utilizes state-of-the-art technologies to deliver high quality test results and service while exceeding the turnaround time requirements and demands of our physician clients. Medex Laboratories currently analyzes samples for hundreds of thousands of patients per year from providers and healthcare facilities all across the nation.

As our clients have trusted our laboratory with being an analytical and integral part of their patients' diagnosis and treatment process, we believe in respecting that trust with continuous dedication to customer satisfaction and support. We join our clients and physicians in their belief that patient care is and always will be the number one priority. Medex Laboratories' personalized support and professional service continue to exceed the expectations of our valued clients, providers and facilities. More healthcare facilities and providers, in private practices, in hospitals and in long term care facilities, are placing their trust in Medex Laboratories; and, together we are transforming advanced diagnostic information into knowledge and superior treatment options for more and more patients every day.

MEDEX
LABORATORIES

www.medexdiagnosticservices.com
CLIA # 45D2222222 | NPI # 1740886449 | Lab Director : Dr. Rodolfo J. Nudelman
Lab Address : 9525 Bissonnet Street, Suite # 250, Houston TX 77036
Tel : 844 963 1574 | Fax : 832 345 1629
Email : contact@medexdiagnosticservices.com