

Date	2 November 2022
Team ID	PNT2022TMID22047
Project Name	Project - Detecting Parkinson's Disease using Machine Learning.

- *Create a basic webpage structure*
- *Create a home page with disease description*

Welcome saranya | Home Predict Logout

Detecting Parkinson Disease using ML

Parkinson's disease (PD) is a prevalent neurodegenerative disease affecting about 1% of the world population over the age of 55 (Nussbaum and Ellis, 2003). About five million people worldwide are estimated to have PD. PD Prevalence is expected to double by the year 2030 . Parkinson's disease (PD) patient care is limited by inadequate, sporadic symptom monitoring, infrequent access to care, and sparse encounters with healthcare professionals leading to poor medical decision making and sub-optimal patient health-related outcomes. Recent advances in digital health approaches have enabled objective and remote monitoring of impaired motor function with the promise of profoundly changing the diagnostic, monitoring, and therapeutic landscape in PD.

PARKINSON'S DISEASE

A disease that affects nerve cells in the brain and causes tremors, poor coordination, and problems walking and moving.

CAUSES & RISK FACTORS

Both sexes & all races are affected
Parkinson's commonly develops after age 50
Scientists have identified abnormal genes that may lead to parkinson's in some people, but there is no solid proof to show it's always inherited.
Men are more likely to develop parkinson's disease because they're more likely to experience head injury or exposure to toxins

SYMPTOMS OF PARKINSON'S

- Slow thinking
- Lack of facial expression
- Cheering
- Difficulty swallowing
- Shaking tremors
- Loss of small or fine hand movements
- Memory loss, dementia
- Anxiety, depression
- Hallucinations
- Slumped posture
- Aches and pains
- Constipation
- Problems with balance or walking

Parkinson's Disease Symptoms

Stooped posture, Masked Face, Black rigidity, Forward tilt of trunk, Fixed elbows and wrists, Reduced arm swing, Hand tremor, Tremors in the legs, Slightly flexed hip and knees, Shuffling, short-stepped gait

Stages of Parkinson's Disease

Stage 1: Develop mild symptoms but able to go about day-to-day life
Stage 2: Symptoms such as tremors and stiffness begin to worsen, may develop poor posture or have trouble walking
Stage 3: Movement begins to slow down, loss of balance
Stage 4: Symptoms are severe and cause significant issues with day-to-day living, unable to live alone and will need care
Stage 5: Walking or standing may be impossible at this point, people at this stage are often confined to a wheelchair or bed

(A) Normal

(B) Parkinson's disease

Brain Regions Affected by Parkinson's Disease

Motor Cortex

Treatment of Motor Symptoms of Parkinson's Disease

Levodopa, Dopamine replacement, Deep Brain Stimulation

(A) Normal

Limbic system, Cerebral cortex, Vagus nerve, Intestinal microbiota

(B) Parkinson's disease

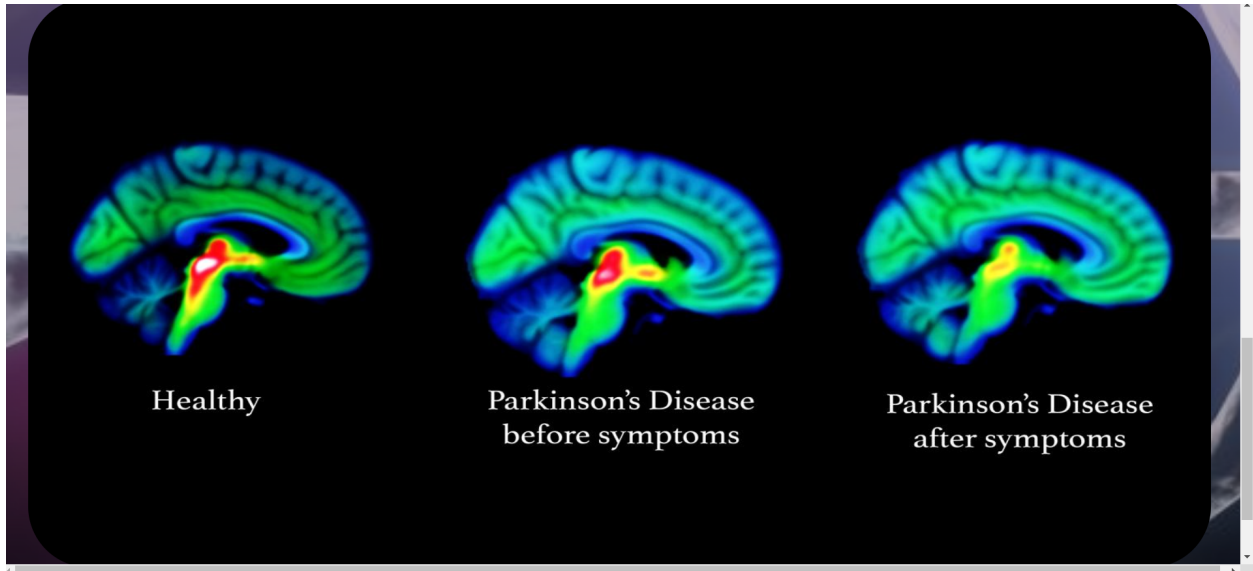
Pain, Depression/anxiety, Behavioral changes, GI disturbances, Grimacing, Constipation, Pain, Vagus nerve, Dysbiosis

Brain Regions Affected by Parkinson's Disease

Motor Cortex, Globus pallidus, Thalamus, Striatum, Caudate Nucleus, Putamen, Substantia nigra, Locus ceruleus, Raphe nuclei, Brainstem, Substantia nigra (seal), Pars reticulata, Pars compacta

Treatment of Motor Symptoms of Parkinson's Disease

Diagnosis of PD, Levodopa, MDS/DL or VMAT therapy, COMT inhibitors, DA and DR agonists, Midsize or young, Midsize or old, Early-stage levodopa, Late-stage levodopa, Amino acid precursors, Anticholinergics, BHMT for levodopa synthesis, Discontinue levodopa if intolerable, symptomatic treatment, dopamine agonist, anticholinergic, amantadine, apomorphine available from clinic, Symptomatic management, Onset adjustment, Continuous infusion of L-DOPA



Home Predict Logout

Prevention is better than cure!

Parkinson Classifier

NOTE: Upload an spiral or wave page drawn by the user in a white sheet

Choose

Predict!