



AD Check 認知測™

Phosphorylated-Tau217 (p-Tau217) Blood Biomarker Test



AD Check 認知測™ uses a breakthrough medical technology that has been clinically validated and recognized by the U.S. Food and Drug Administration (FDA) to accurately detect the levels of a biomarker related to Alzheimer's Disease (AD) pathology in the blood: phosphorylated Tau217 protein (p-Tau217). This helps assess the risk of Alzheimer's Disease (AD) pathology and allows for regular monitoring of risk changes as individuals age.

Research further indicates that the testing technology used in **AD Check 認知測™** is consistent with the results of traditional positron emission tomography (PET-A β , PET-Tau) and cerebrospinal fluid biomarkers (CSF A β 42/40, and CSF p-Tau181).

1| Ashton NJ, Brum WS, Di Molfetta G, et al. Diagnostic Accuracy of a Plasma Phosphorylated Tau 217 Immunoassay for Alzheimer Disease Pathology. JAMA Neurol. 2024;81(3):255–263. doi:10.1001/jamaneurol.2023.5319



Negative



Intermediate



Positive

Advantages

Extensive medical literatures and clinical studies show:

Use of Technology:



Breakthrough Device Designation granted by US FDA



High accuracy, specificity, and sensitivity



Simple blood test, non-invasive



Test by local accredited laboratory

High Risk Groups



Aged 40 and above



Family History of AD



High-risk Factors of AD:

Hypertension, high blood sugar, high cholesterol, history of stroke, or previous brain injuries



Sign of Cognitive Decline is Observed



APOE4 Gene Carriers



Depression / Living with High Stress

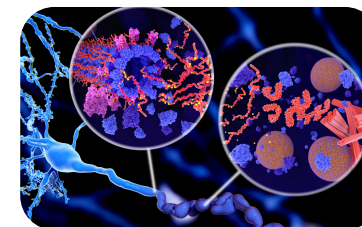


Smoking or Heavy Drinking

AD Check 認知測™ Blood Biomarker Test

What is Tau Protein?

Tau protein is a type of protein found in nerve cells. When it becomes excessively phosphorylated, it loses its normal function and eventually forms fibrous neurofibrillary tangles. These aggregates can harm the health and function of neurons, leading to the development of Alzheimer's Disease (AD).



Currently, phosphorylated Tau protein (p-Tau) has been clinically validated as a specific plasma biomarker that reflects the pathological features of AD. In patients with AD, p-Tau levels significantly increase. This increase occurs concurrently with the accumulation of extracellular beta-amyloid (A β) plaques, which is the hallmark of the AD.

What is p-Tau217 Protein?

Among all Tau blood biomarkers, p-Tau217 performs exceptionally well in distinguishing Alzheimer's disease (AD) from other neurodegenerative diseases and is effective in detecting patients with mild cognitive impairment (MCI).

p-Tau217 effectively detects
Alzheimer's Disease (AD)

Sensitivity

~98.2%*

Specificity

~98.6%*

Accuracy

Up to 96%*

*Comparison with PET-A β 42/40 and CSF-A β 42/40 results [1]

AD Check™ Use of Technology

Simoa - Single Molecule Array

Simoa is an ultra-sensitive biomarker detection method that can detect extremely low concentrations of p-Tau217 protein in plasma. This testing method has received breakthrough medical device designation from the U.S. FDA, and international clinical literature confirms that it has high sensitivity and specificity.

[1] Ashton NJ, Brum WS, Di Molfetta G, et al. Diagnostic Accuracy of a Plasma Phosphorylated Tau 217 Immunoassay for Alzheimer Disease Pathology. JAMA Neurol. 2024;81(3):255–263. doi:10.1001/jamaneurol.2023.5319

[2] <https://www.quanterix.com/press-releases/quanterix-granted-breakthrough-device-designation-from-u-s-fda-for-blood-based-p-tau-217-test-for-alzheimers-disease/>

Cognitive Disorders Begin Early

For seniors aged 70 and above

**1 in 10
individuals**

has been diagnosed with
cognitive disorders



According to the World Health Organization, about 9% of people with cognitive impairment have early-onset dementia. After the age of 65, for every additional five years, the prevalence doubles!

Hong Kong Alzheimer's Disease Association

Food and Environmental Hygiene Department - Review Report on Mental Health (2017)

Dementia is Irreversible



Currently, neither pharmacological nor non-pharmacological treatments can reverse the neurological damage and subsequent cognitive impairment.

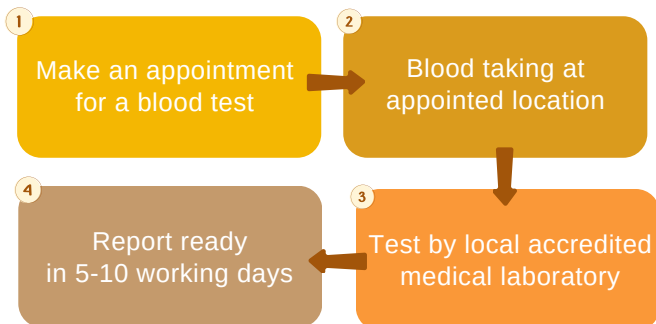
Early Intervention in Mild Cognitive Impairment (MCI) Stage is the key



Among all cases of cognitive impairment, Alzheimer's Disease (AD) account for approximately 50-75%

Research indicates that Mild Cognitive Impairment (MCI) stage has much better opportunity to slow down and improve condition. By using **AD Check 認知測™** to detect AD risk at early stage, it helps take proactive actions before the disease progresses, potentially preventing or delaying the onset of Alzheimer's Disease.

Test Procedures



About Us

Smart Idea Health Technology Limited was established in 2023 by a team of Hong Kong professionals in healthcare and innovation. Drawing from past experiences, the team understands that innovative technology can effectively improve the efficiency of healthcare services in Hong Kong. Therefore, the team aims to use their expertise to provide better and more appropriate medical options for socially vulnerable groups, enhancing their quality of healthcare and life.

AD Check 認知測™ Blood Draw Points

Central

Room 601, 6/F, China Insurance Group Bldg.,
141 Des Voeux Road, Central, Hong Kong

Room 618, 6/F., Central Building, 1-3 Pedder Street,
Central, Hong Kong

Room 705, Melbourne Plaza, 33 Queens Road,
Central, Hong Kong

Kornhill

Room, 505, Office Tower, Kornhill Plaza,
Quarry Bay, Hong Kong

Mong Kok

Room 911, Phase 1 Argyle Centre, Mong Kok, Kowloon

Tsuen Wan

Room 733, 7/F, 64-98 Sai Lau Kok Road,
Nan Fung Centre, Tsuen Wan, N.T.

Welcome to schedule a test

p-Tau217

HKD \$3000 /1 test

HKD \$5700 /2 tests



AD Check 認知測™

A Compelling Blood Test for Early AD Detection



Phosphorylated-Tau217 (p-Tau217) Alzheimer's Disease Blood Biomarker Test

p-Tau217 蛋白阿茲海默症生物標記血液檢測



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Use of Tech
FDA
Breakthrough
Device Designation