

# Inflammation Biomarker

## C-Reactive Protein

*Biomarker Predicts Risk Including Alzheimer's and Cardiovascular Diseases.*



C-Reactive Protein (CRP) is found in the blood and the level rises in response to inflammation. It is considered purely a marker, that is, it is not involved in causing or curing disease.

CRP is a non-specific marker for inflammation that can be caused by both acute and chronic

health conditions, thus additional tests are required to investigate root cause(s) of disease.

CRP can be viewed as a crude measure of a patient's chronic disease "temperature." It should be measured frequently to help establish health patterns.

### History Lesson

For decades, cardiovascular disease was tied to one thing, cholesterol. Yet studies showed that half of those with disease had low cholesterol. Dr. Ridker and Rifai of Harvard, in their book titled "CRP and Cardiovascular Disease," showed that those with low cholesterol but with high CRP had cardiovascular disease.

Today we may be making the same error with beta amyloid and Alzheimer's. Many patients with disease do not have high beta amyloid and all drug trials that reduce amyloid fail to improve patients.

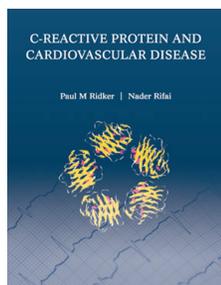
Interestingly, many of these Alzheimer's patients have high CRP and inflammation. Is it plausible that cardiovascular and Alzheimer's diseases are connected by the same causes?



### Inflammation in the Brain is Tied to CRP

Inflammation promotes neurodegeneration by activating microglial cells, which are primary immune cells of the nervous system. These cells secrete a variety of pro-inflammatory chemical mediators that cause damage but also trigger the production of CRP.

The similarity between the immune response by the brain and the body points to similar factors at the root cause. Intracellular infectious



species are shown to be a cause of both cardiovascular and Alzheimer's disease. CRP is a screening tool for inflammation and microglial activation that impacts the brain.

Those suffering with Alzheimer's or concerned about the disease should seek screening for inflammation including a test for CRP.