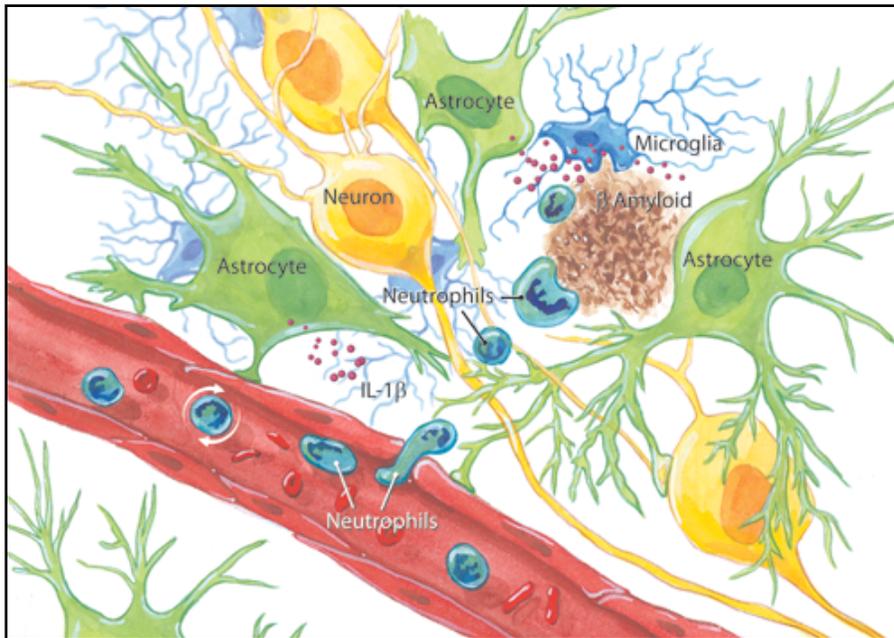


Inflammation and Alzheimer's

Inflammation Stops Neuron Birth

“Inflammation, or its root-causes inhibits brain regeneration.”



Inflammation is the immune system at work. However, the activated immune system can suppress normal biological processes while it fights to protect the body. One such process is neurogenesis or the birth of new neurons. All tissue in the body “turns over.” That is, old tissue

dies and is replaced with new tissue. When the brain is “inflamed” old neurons continue to die but they are not replaced as quickly. The result is brain atrophy.

Stopping inflammation at its root cause helps restore neurogenesis, thus the brain.

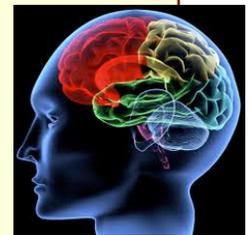
Brain Inflammation

Neuroinflammation (inflammation of the brain) is part of the immune system’s protective response.

Medicine had a belief that the brain was exempt from inflammation or was “immune privileged.” This belief was dispelled in the 1990s.

Microglia is a type of glial (brain) cell that are macrophages (part of the immune system) of the brain and spinal cord. These cells act as the first and main form of active immune defense in the brain.

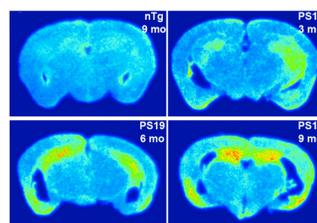
When microglia are activated, traditional markers of inflammation are elevated in the blood. These markers are part of a diagnosis of brain inflammation that leads to early detection and treatment process for AD.



Inflammation and the “Hallmarks” of Alzheimer’s.

The connection between inflammation and Alzheimer’s disease dates to the 1980s. In the 1990s researchers discovered the presence of inflammation in the brain. Specifically, inflammation was present along side of the two hallmarks of Alzheimer’s, the neurofibrillary tangles and the amyloid plaques.

In 2001, researchers showed that patients with



Alzheimer’s not only have inflammation in the brain but it also shows up in the circulating blood. Thus there is no need to biopsy the brain to determine if there is inflammation that can trigger Alzheimer’s disease.

Advanced blood tests can be used to detect both the amount and severity of inflammation.