

Alzheimer's Four Physiological Symptoms

Shrinkage – Sulci (groves and furrows in outer brain) and the Gyri (well developed folds of outer brain) shrivel and pull apart. The weight and size of the brain withers from three pounds to one pound.

Cerebral Spinal Fluid – Temporal and Frontal Lobes fill with fluid and the four ventricles become grossly enlarged.

Neurofibrillary Tangles – Tau proteins are insoluble twisted fibers found inside nerve cells. They form part of a structure is called a microtubule. These microtubules carry nutrients to and from the nerve cells. The Tau proteins become abnormal and collapse the microtubule, starving the cells.

Plaque – Housekeeping cells cease to remove fragmented pieces of dead Amyloid from between nerve cells (neurons). Over time, these fragments accumulate on the nerve endings forming bone-like plaques.

Cerebrum, Cerebellum and the Limbic System

The Cerebrum: The largest part of the brain contains the four lobes, Temporal, Frontal, Parietal and Occipital.

Temporal Lobe: Language, Hearing and Smell – Generally the start of the disease process and the beginning stages of amnesia and aphasia. The left lobe contains Broca's Area (ability to talk) and Wernicke's area (comprehension of spoken and written words), the right lobe contains singing and swearing.

Frontal Lobe: Memory, Speech, Rational Thought, Judgment, Personality, Attention, Problem Solving, Planning and Imagination – Once the disease enters here, familiar persons begin to notice changes in behavior or cognitive abilities, and amnesia, aphasia and agnosia are cited.

Parietal Lobe: Sensory Perception (pain, touch, taste, temperature and pressure) – Alzheimer's patients have difficulty determining their environment. For example, they may not know they're cold, or be able to relay accurate information about pain. Amnesia and aphasia are tied to this lobe's responses to stimuli.

