# Semantic Variant Primary Progressive Aphasia

People with semantic variant (svPPA) have increasing trouble understanding the meaning of words, finding words or naming people and objects. As time goes on, people with svPPA begin to use more general names for specific things. For example, they might say “animal” instead of “dog.” As their word comprehension gets worse, they may eventually have a hard time understanding conversations.

Because it primarily affects the temporal lobe of the brain, svPPA is considered a subtype of a larger group of brain conditions called frontotemporal dementia (FTD).

## What Causes svPPA?

The cause of svPPA is unknown. Scientists know that in svPPA there is a build up of a protein called TDP-43 in the left side of the brain (specifically the temporal lobe), which controls speech and language. This protein occurs normally, but we do not yet understand what causes it to build up in large amounts in this brain area. As more and more TDP-43 forms in those brain cells, the cells lose their ability to function and eventually die. This causes the temporal lobe of the brain to shrink.

## How is Age Related to svPPA?

Most people with svPPA start to have symptoms in their 50s or 60s, although some people have shown signs earlier or later.

## What Happens in svPPA?

People with svPPA that is predominantly on the left side of the brain, usually have trouble recognizing and naming familiar objects, people or places. Over time, they lose the knowledge of what words mean and what objects are. For example, a person with svPPA might not know what a peanut butter sandwich is, even though they can still make one. It is difficult for people

with svPPA to express what they want to say. Words that the person uses a lot may remain available, but they may replace more unusual words with “thingy” or “you know.” The tone, rhythm and fluctuations of pitch (prosody) generally sound normal to the listener. Memory for day-to-day events is usually spared.

People with svPPA often develop behavior and personality changes. The early signs of svPPA in people with more damage on the right-side of the brain include a decline in empathy or awareness of other people's emotions. People with svPPA may also become more confused and disoriented as they recognize fewer familiar places and people. After a few years, the people with left sided damage and those with right sided damage tend to look more similar, as the disease typically progresses to involve both sides. With moderate svPPA, most people show at least some of the behavioral problems that are similar to the behavioral variant of FTD. People with moderate svPPA will have immense trouble understanding you. They may also have increasing difficulty recognizing the names and faces of people – even friends and family. Reading and writing, mostly likely, will have declined noticeably. The person may still be able to use numbers, colors and shapes – the brain functions responsible for these skills are organized in a different area of the brain from words. As the disease progresses, people with svPPA may stop talking altogether, or they may speak with a vocabulary of only a few words.

svPPA is a disease that changes with time. A person with svPPA can live many years with the disease. Research suggests that a person with svPPA may live an average of 12 years with the disease, although this can vary from person to person.

# Are There Medicines To Treat svPPA?

Though there is no cure for svPPA yet, there are medications that may help manage the symptoms. These medications are called selective serotonin reuptake inhibitors (SSRIs), and they can help if a person with svPPA is having changes in behavior.

# What Other Things Help?

There are various ways to help a person with svPPA. Speech therapy may help improve communication between people with svPPA and others.

Research has shown that physical exercise helps to enhance brain health and improves mood and general fitness. A balanced diet, enough sleep, and limited alcohol intake are other important ways to promote good brain health. Other illnesses that affect the brain, such as diabetes, high blood pressure, and high cholesterol, should also be treated if present.