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| **Introduction**  (page 3)  The first type of ADD Dr. Amen has noticed is AD/HD, combined type. I have found this type of ADD as a subtype on another site dealing with ADD. This type of ADD is when children are both hyperactive-impulsive and inattentive. Brain SPECT imaging usually shows decreased activity in the basal ganglia and prefrontal cortex during a concentration task. Psychostimulant medication seems to work best for this type of ADD.    undersurface view, rest undersurface view, concentration undersurface view, w/Adderall  mild decrease prefrontal area marked decrease prefrontal cortex overall marked improved activity.  and left temporal lobe  The second type of ADD is AD/HD, primarily inattentive subtype. This type of ADD I have seen on another site as a subtype of ADD. It deals with symptoms of inattention and also chronic boredom, decreased motivation, internal preoccupation and low energy. Brain imaging shows decreased activity in the basal ganglia and dorsal lateral prefrontal cortex during a concentration task. Psychostimulant medication seems to work best for this type of ADD.    Undersurface view, Undersurface view, Undersurface view, Undersurface view,  No Meds, with marked overall No Meds, w/Ritalin,  poor prefrontal improvement overall severe overall marked  and temporal decreased improved activity  lobe activity  Overfocused ADD has symptoms of trouble shifting attention, cognitive inflexibility, difficulty with transitions, excessive worrying, and oppositional and argumentative behavior. Symptoms of inattention and hyperactivity-impulsivity are also seen. Brain images show increased activity in the anterior cingulate gyrus and decreased prefrontal cortex activity. Medications that enhance serotonin and dopamine availability in the brain (venlafaxine, or combination of and SSRI (fluoxetine or sertaline) as a psychostimulant) are best for this type of ADD.    Front on active view Active top down Top down active Active side view  Increased cingulate view view Increased cingulate  Increased cingulate Increased cingulate  Temporal lobe ADD has symptoms of inattention and /or hyperactivity-impulsivity and mood instability, aggression, mild paranoia, anxiety with little provocation, atypical headaches or abdominal pain, visual or auditory illusions, and learning problems ( especially reading and auditory processing). Brain SPECT imaging typically shows decreased or increased activity in the temporal lobes with decreased prefrontal cortex activity. Aggression is more common with left temporal lobe abnormalities. Anticonvulsant medications (gabapentin, divalproate, or carbamazepine and a psychostimulant) are best for this type of ADD.    Undersurface view Underside active view Undersurface view Undersurface  Decreased left Increased left marked decreased view marked  temporal lobe temporal lobe left temporal lobe Activity. Decrease prefrontal  Temporal and cortex  bilaterally  Limbic ADD symptoms are inattention and or hyperactivity-impulsivity and negativity, depression, sleep problems, low energy, low self-esteem, social isolation, decreased motivation and irritability. Brain images show increased central limbic system activity and decreased prefrontal cortex activity. Medicine that should be used for this type of ADD should be stimulating antidepressants such as buprion and imipramine, or venlafaxine if obsessive symptoms are present.    Underside active view underside active view underside active view  Increased limbic activity increased limbic activity marked increased limbic,  Basal ganglia and cingulate  Ring of Fire ADD is very common in children and teenagers. They often don�t respond to psychostimulant medication and in many cases are made worse by them. They tend to improve with either anticonvulsant medication (Depakote or Neurotin, or Risperdal or Zyprexa). Symptoms include severe oppositional behavior, distractibility, irritability, temper problems and mood swings. The Amen Clinic believes it may represent an early bipolar pattern.    Top down active active front on view top down active view left side active view  view, increased activity increased activity increased activity in the increased activity  in the cingulate, in the cingulate, cingulate, lateral in the cingulate,  lateral parietal, frontal lateral parietal, parietal, frontal and lateral parietal,  and temporal frontal and temporal temporal frontal and temporal  Trauma Induced ADD is the last type of ADD described at www.brainplace.com. Symptoms come on or intensify in the year after a head injury. Psychostimulant medication may be helpful, but if irritability results the addition of a low dose anticonvulsant may be helpful.    Top down surface side surface view side surface view side surface view  View marked decreased decreased left decreased left  marked decreased left and anterior prefrontal prefrontal and  left front prefrontal temporal region temporal lobe activity  and occipital lobes  The images I have shown after each of the different types of ADD are brain SPECT images of adult brains from www.brainplace.com. They show the activity in the brain, not the actual physical brain. The holes are areas of low brain activity and not physical holes in the brain. They are parts of the brain that are no longer working properly. In the healthy brain the activity image looks like the physical shape of the brain because all of the brain material is active.    ([Intro1](http://docs.google.com/introduction.html))([Intro2](http://docs.google.com/intro2.html))([Intro3](http://docs.google.com/intro3.html))([Intro4](http://docs.google.com/intro4.html))  [[Home](http://docs.google.com/home.html)][[Introduction](http://docs.google.com/introduction.html)][[Hypothesis](http://docs.google.com/hypothesis.html)][[Procedure](http://docs.google.com/procedure.html)][[Data](http://docs.google.com/data.html)][[Conclusions](http://docs.google.com/conclusions.html)][[Bilio/Links](http://docs.google.com/biblio.html)]  [[2002 Projects](http://docs.google.com/AP2002/index.html)][[2001 Projects](http://docs.google.com/index.html)][[2000 Projects](http://docs.google.com/AP2000/index.html)][[1999 Projects](http://docs.google.com/AP99/index.html)][[1998 Projects](http://docs.google.com/AP98/index.html)] |