

DR. EARL HENSLIN

Foreword by Dr. Daniel Amen



THIS IS YOUR BRAIN ON JOY

A Revolutionary Program for Balancing Mood,
Restoring Brain Health, and Nurturing Spiritual Growth

A PDF COMPANION TO THE AUDIOBOOK

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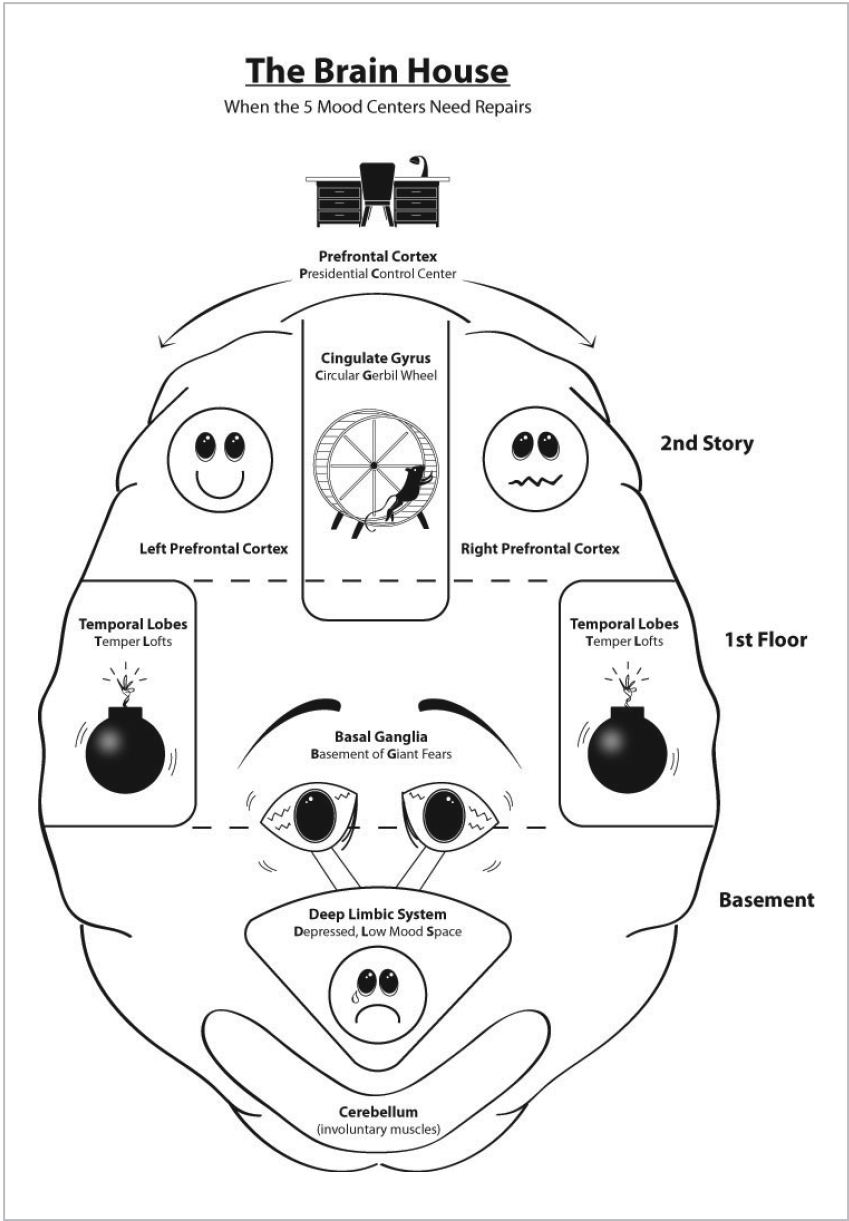
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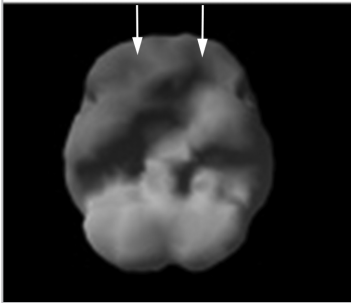
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A Head Trip to a Happier Life

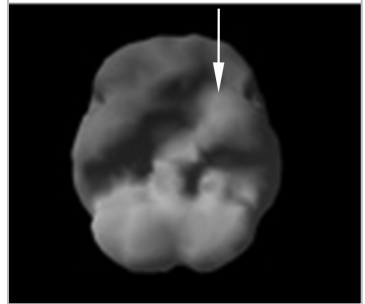


Prefrontal Cortex



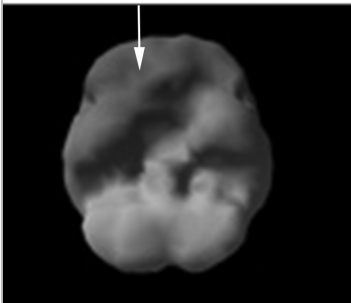
(Underside, surface view)

Left Prefrontal Cortex



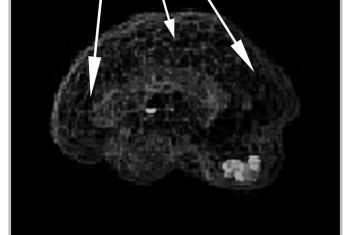
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Right Prefrontal Cortex

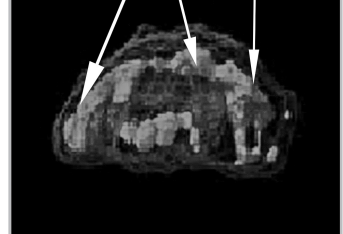


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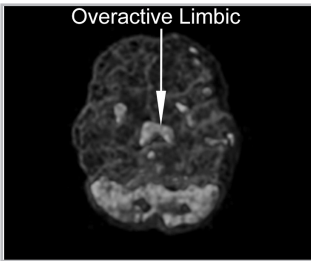
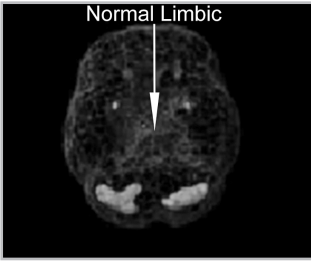
Normal Cingulate



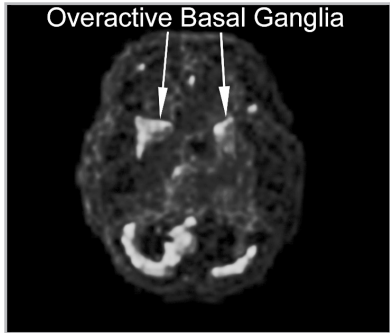
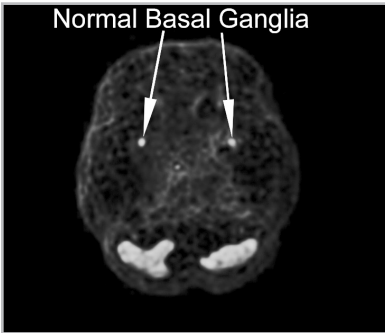
Overactive Cingulate



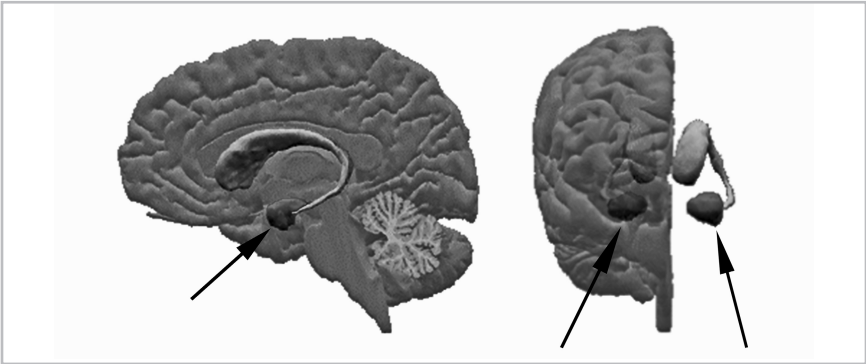
(Side, active view;
forehead on left)



(Underside, active view)

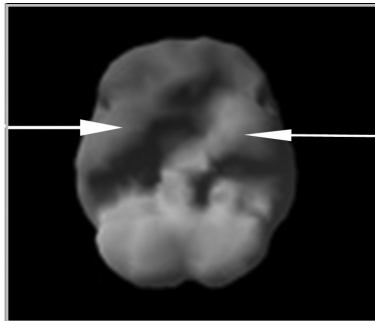


(Underside, active view)



View of Amygdala

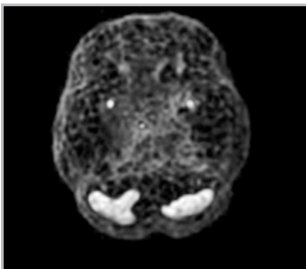
Right Temporal
Lobe



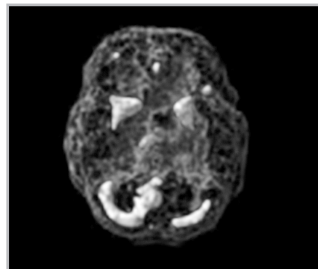
Left Temporal
Lobe

(Underside, surface view)

Imagine a turtle shell flipped on its back, so in this picture
the left side of the brain is on the right side of the page.



A joyful, peaceful brain



A brain in emotional pain

(Underside, active view)

CHAPTER FOUR

Testing, Testing . . . All Brains Need a Little Help Sometimes

AMEN BRAIN SYSTEM CHECKLIST

Please rate yourself on each of the symptoms listed below using the following scale. If possible, to give the most complete picture, have another person who knows you well (such as a spouse, partner, or parent) rate you as well.

Never: 0 Rarely: 1 Occasionally: 2
Frequently: 3 Very Frequently: 4 Not Applicable/Not Known: NA

Other Self

- | | | |
|-----|-----|---|
| ___ | ___ | 1. Fails to give close attention to details or makes careless mistakes |
| ___ | ___ | 2. Trouble sustaining attention in routine situations (such as homework, chores, and paperwork) |
| ___ | ___ | 3. Trouble listening |
| ___ | ___ | 4. Fails to finish things |
| ___ | ___ | 5. Poor organization for time or space (such as backpack, room, desk, and paperwork) |
| ___ | ___ | 6. Avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort |
| ___ | ___ | 7. Loses things |
| ___ | ___ | 8. Easily distracted |
| ___ | ___ | 9. Forgetful |
| ___ | ___ | 10. Poor planning skills |
| ___ | ___ | 11. Lacks clear goals or forward-thinking |
| ___ | ___ | 12. Difficulty expressing feelings |
| ___ | ___ | 13. Difficulty expressing empathy for others |
| ___ | ___ | 14. Excessive daydreaming |
| ___ | ___ | 15. Feels bored |
| ___ | ___ | 16. Feels apathetic or unmotivated |
| ___ | ___ | 17. Feels tired, sluggish, or slow-moving |
| ___ | ___ | 18. Feels spacey or “in a fog” |

- ___ 19. Fidgety, restless, or trouble with sitting still
- ___ 20. Difficulty remaining seated in situations where remaining seated is expected
- ___ 21. Runs about or climbs excessively in situations in which it is inappropriate
- ___ 22. Difficulty playing quietly
- ___ 23. "On the go" or acts as if "driven by a motor"
- ___ 24. Talks excessively
- ___ 25. Blurts out answers before questions have been completed
- ___ 26. Difficulty waiting turn
- ___ 27. Interrupts or intrudes on others (for example, butts into conversations or games)
- ___ 28. Impulsive (saying or doing things without thinking first)
- ___ 29. Excessive or senseless worrying
- ___ 30. Upset when things do not go own way
- ___ 31. Upset when things are out of place
- ___ 32. Tendency to be oppositional or argumentative
- ___ 33. Tendency to have repetitive negative thoughts
- ___ 34. Tendency toward compulsive behaviors
- ___ 35. Intense dislike for change
- ___ 36. Tendency to hold grudges
- ___ 37. Trouble shifting attention from subject to subject
- ___ 38. Trouble shifting behavior from task to task
- ___ 39. Difficulties seeing options in situations
- ___ 40. Tendency to hold on to own opinion and not listen to others
- ___ 41. Tendency to get locked into a course of action, whether or not it is good
- ___ 42. Becomes very upset if things are not done a certain way
- ___ 43. Others complain that you worry too much
- ___ 44. Tend to say no without first thinking about question
- ___ 45. Tendency to predict fear
- ___ 46. Frequent feelings of sadness
- ___ 47. Moodiness
- ___ 48. Negativity
- ___ 49. Low energy

- ___ 50. Irritability
- ___ 51. Decreased interest in others
- ___ 52. Decreased interest in things that are usually fun or pleasurable
- ___ 53. Feelings of hopelessness about the future
- ___ 54. Feelings of helplessness or powerlessness
- ___ 55. Feels dissatisfied or bored
- ___ 56. Excessive guilt
- ___ 57. Suicidal feelings
- ___ 58. Crying spells
- ___ 59. Lowered interest in things usually considered fun
- ___ 60. Sleep changes (too much or too little)
- ___ 61. Appetite changes (too much or too little)
- ___ 62. Chronic low self-esteem
- ___ 63. Negative sensitivity to smells/odors
- ___ 64. Frequent feelings of nervousness or anxiety
- ___ 65. Panic attacks
- ___ 66. Symptoms of heightened muscle tension (headaches, sore muscles, hand tremor)
- ___ 67. Periods of heart pounding, rapid heart rate, or chest pain
- ___ 68. Periods of trouble breathing or feeling smothered
- ___ 69. Periods of feeling dizzy, faint, or unsteady on feet
- ___ 70. Periods of nausea or abdominal upset
- ___ 71. Periods of sweating or hot or cold flashes
- ___ 72. Tendency to predict the worst
- ___ 73. Fear of dying or doing something crazy
- ___ 74. Avoids places for fear of having an anxiety attack
- ___ 75. Conflict avoidance
- ___ 76. Excessive fear of being judged or scrutinized by others
- ___ 77. Persistent phobias
- ___ 78. Low motivation
- ___ 79. Excessive motivation
- ___ 80. Tics (motor or vocal)
- ___ 81. Poor handwriting
- ___ 82. Quick startle
- ___ 83. Tendency to freeze in anxiety-provoking situations

- ___ 84. Lacks confidence in own abilities
- ___ 85. Seems shy or timid
- ___ 86. Easily embarrassed
- ___ 87. Sensitive to criticism
- ___ 88. Bites fingernails or picks skin
- ___ 89. Short fuse or periods of extreme irritability
- ___ 90. Periods of rage with little provocation
- ___ 91. Often misinterprets comments as negative when they are not
- ___ 92. Irritability tends to build, then explodes, then recedes;
often tired after a rage
- ___ 93. Periods of “spaciness” or confusion
- ___ 94. Periods of panic and/or fear for no specific reason
- ___ 95. Visual or auditory changes, such as seeing shadows or hear-
ing muffled sounds
- ___ 96. Frequent periods of *I* (feelings of being somewhere you
have never been)
- ___ 97. Sensitivity or mild paranoia
- ___ 98. Headaches or abdominal pain of uncertain origin
- ___ 99. History of a head injury or family history of violence
or explosiveness
- ___ 100. Dark thoughts, may involve suicidal or homicidal thoughts
- ___ 101. Periods of forgetfulness or memory problems

Answer Key

Prefrontal Cortex (Presidential Control Center) Symptoms, Questions 1–28

If nine or more symptoms are rated 3 or 4, this indicates a problem with the prefrontal cortex. (1–18 indicate a more “inattentive type” ADD; 19–28 may indicate ADHD, which includes symptoms of hyperactivity along with attention problems; see chapter 6.)

Cingulate Gyrus (Circular Gerbil Wheel) Symptoms, Questions 29–45

If five or more symptoms are rated 3 or 4, there’s a high probability that the SPECT scan will show an overactive cingulate (see chapter 7).

Deep Limbic System (Depressed Low-Mood Space) Symptoms, Questions 46–63

If five or more of symptoms are rated 3 or 4, you may need to consider

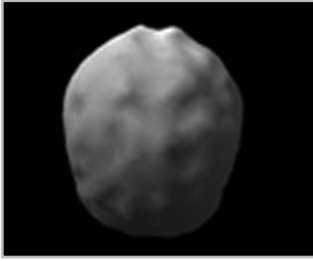
an antidepressant or a supplement with antidepressant qualities (see chapter 9).

Basal Ganglia (Basement of Giant Fears) Symptoms, Questions 64–88

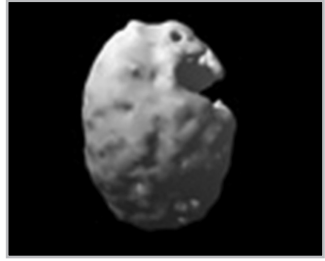
If five or more symptoms are rated 3 or 4, then there is a high likelihood that a SPECT scan would show overactivity in the basal ganglia, the area of the brain associated with fear and anxiety (see chapter 8).

Temporal Lobe (Temper Lofts) Symptoms, Questions 89–101

If five or more symptoms are rated 3 or 4—in my personal experience over the past ten years, 100 percent of people scanned have had temporal lobe overactivity or underactivity in either or both the left and right temporal lobes—you may struggle with mood swings: times of high energy or mania that may shift suddenly to dark depressions or volatility (see chapter 10).

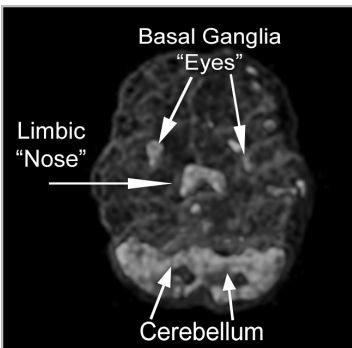


Normal Brain



Forty-eight-year-old who fell off roof.
Problems with memory, listening, concentration, and temper.

(Top-down, surface view)



(Top-down, surface view)



Alcohol, Meth, and Cocaine



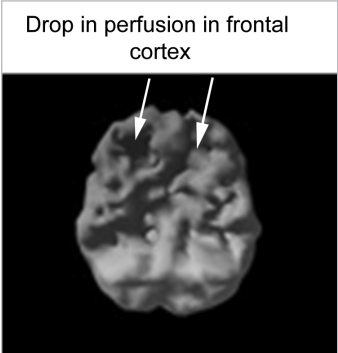
One Year Sober

(Top-down, surface view)

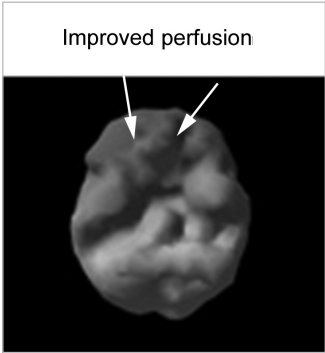
The Prefrontal Cortex: The Presidential Control Center

Areas Controlled by Prefrontal Cortex	Healthy Prefrontal Cortex in Life & Relationship
Focus	Ability to pay attention while interacting and to follow a topic and not jump from subject to subject.
Forethought	Consideration of impact of words and behavior before they are expressed.
Impulse Control	Thinking before saying or doing something. Can hear a little voice that says, “No . . . that may cause pain or distance in the relationship.” Stays with a spending plan, eats moderately, not ruled or governed by the thought or feeling of the moment.
Planning	Able to take a complex goal and break it down into reachable steps.
Judgment	Exercises common sense; able to make choices and decisions for the benefit of the relationship. People with poor prefrontal cortex problems will often sacrifice relationships for immediate pleasure.
Empathy	Ability to feel what the other person is going through and articulate that in a manner such that the other person feels cared for or understood. Self-centeredness is a problem when the PFC isn’t working well, seeking own needs and desires first without sufficient consideration of the consequences to others.
Emotional Control	Able to stay in touch with feelings and control responses and reactions. Poor PFC functioning results in an impulsive expression of thoughts and feelings that tends to cause distance or undermine intimacy in marriages, to strain friendships, and to make parenting a child with PFC problems the ultimate challenge.

Areas Controlled by Prefrontal Cortex	Healthy Prefrontal Cortex in Life & Relationship
Insight/Intuition	Aware of function as a person with a sense of how another person is feeling. Picks up on social cues with relative ease. People with injury or poor functioning in the PFC area will have difficulty reading faces and emotions and, thus, in making changes in relationships. They often have trouble with intuiting subtleties and picking up on nuances that normally signal “something isn’t right.” (In other words, if your mate has ADD, don’t expect him to pick up on your mood or catch shifts in body language. You’ve got to hit him over the head with exactly what you want and need.)
Learning from Mistakes	When entering familiar situations, a person with healthy PFC will recall past experiences and add new information and will avoid repeating a mistake. Not so with poor PFC. When entering similar situations, these persons often do not learn from mistakes but will repeat the same undesirable behavior over and over. Similarly, they may not remember the little things that help a relationship grow, don’t have an internal reminder that prompts them to give a flower or write an encouraging note or follow up on requested desires.
Organization	People with poor PFC have trouble maintaining order in the environment. Car, office, or house may be in disarray. They are often unrealistic about what can be accomplished in a given amount of time and have problems organizing and planning days.



Concentration



Adderall aids perfusion
in the prefrontal cortex

(Underside, surface view)

ADD

Type	Personality	Problem
Temporal Lobe	Passionate, intense, and driven. Is committed to goals and values of the family, business, team, or church and will walk through walls for them.	Under times of stress, will be prone to explode over minor issues. Generates fearfulness in others. People will walk on eggshells and avoid bringing problems to light for resolution. Families suffer because, though they may have the appearance of unity, many of them are really suffering in silence under an explosive spouse or parent who has difficulty admitting wrong. This ADD type is usually reluctant to take responsibility for basic human errors (errors that could have allowed him to model that it was okay to make a mistake, learn from it, and move on).

Type	Personality	Problem
Limbic	More sensitive to their feelings and those of others. Can be highly responsible in making sure relationship is okay. Bothered if relationships at work are not doing well.	Can be prone to depression, feelings of hopelessness. Struggles to be optimistic and hopeful during difficult times. Will bring the mood of the marriage or family down. Family members of this ADD type may describe themselves as feeling as though they are “living with Eeyore.”
Avoidant	Will tend to be positive and encouraging to team or family members. Feels better when others are feeling better. Will not generate conflict for the sake of generating conflict.	Lives with high degree of anxiety and physical tension. Chronic problems with headaches, backaches, colitis, IBS, and so forth. Avoidance of problems to the point that problems can create crises or financial problems because of unwillingness to face the problem when it was small.
Overfocused	Great organizational skills. Excellent goal-setting skills. Will follow project through to its completion with details taken care of. Great at adhering to budgets and contracts.	Under times of stress, will be stuck in black-and-white thinking. Obsessed with details. Will notice everything wrong without encouraging and building up people. Coworkers, friends, spouse, or family members can end up focusing so hard on “not messing up” that positive, creative, progressive growth can be stunted. It is hard to deeply exhale and relax around a person like this.

Type	Personality	Problem
Inattentive	Spontaneous, creative, and great at generating new ideas. Will motivate people, likes excitement, and is interested in new ideas, new strategies, and new technologies. Seems to shift easily from one project to another.	Will tend to focus under times of stress on activities that are highly stimulating. Will have poor follow-through on projects and avoid follow-through because anxiety increases. Will not use good judgment regarding time. Has problems accurately estimating the amount of time it takes to complete a project. Will often require a crisis for the motivation to complete difficult projects or make a significant change.
Classic	Most likely has the highest creativity of all the types. Will see dimensions of problems that no one else sees. Can be inventive and loves finding new paradigms or models of doing things.	May help create new models or programs but is the worst of all the subtypes in the follow-through. Consistently following a project through to completion (if it gets mundane) often is not enough stimulation for this type to stay interested and motivated. Can have many projects going at one time. Multitasks yet struggles to bring projects to fruition.
Ring of Fire	Passionate, intense; can easily persuade and motivate people. At times may be amazingly sensitive and intuitive.	Under times of stress there is nothing anyone can do to calm or please this type. Will disrupt relationships within the organization or family. Pits one person against the other, and when confronted, acts as if he did nothing. Can be highly manipulative and deceptive (more on this fiery brain issue in chapter 11).

Supplements to Aid PFC Functioning

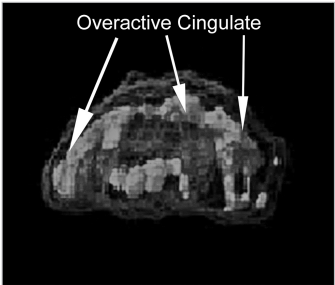
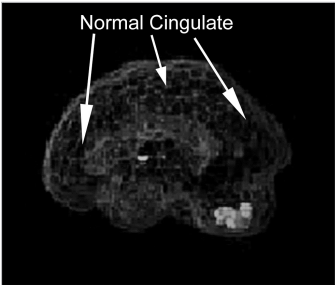
Supplement	Recommendations
L-tyrosine	NeuroStim is a product designed by Dr. Amen to help with prefrontal cortex function. It contains 500 mg of L-tyrosine.
Ginkgo Biloba	Ginkgo is an antioxidant that helps improve circulation, energy, concentration, focus, and memory. The usual recommended dosage is 60 to 120 mg twice per day. Since it helps with circulation, you will often see it combined with tyrosine and other supplements. (As a side benefit, many happy midlife males have found that ginkgo helps their sexual performance as well.)
D-phenylalanine and L-phenylalanine or DL-phenylalanine (DLPA)	The precursor for norepinephrine comes in these forms. Most stores carry the L form, but the D form is more easily converted in the brain (though harder to find in stores). The L form is a bit more stimulating for daytime energy; any form with D in it is going to be more relaxing. See <i>The Mood Cure</i> for more details on recommended dosages for specific situations. Because the L form can be stimulating, you need to watch for signs of overstimulation, and people with high blood pressure will want to monitor their numbers to make sure this supplement doesn't raise the numbers.
Protein Powder	Rice, soy, vegetable, whey, and egg protein powders will help enhance dopamine and norepinephrine.

CHAPTER SEVEN

The Cingulate Gyrus:
The Circular Gerbil Wheel

Healthy Cingulate	Overactive Cingulate
Flexible, able to move from one thought to another.	Black-and-white thinking.
When wronged, able to forgive and let go.	Will store hurts, angers, and resentments. Has difficulty forgiving and moving on. In conflict, will bring up hurts, anger, and resentments from years ago.
Able to see the positive and hold onto it.	Will notice everything that is wrong in a relationship. Has difficulty seeing the positive.
Able to create order in environment, but disorder does not cause anger or fear.	Can be compulsive about order and cleaning. Upset if anything is left out or system of order is disrupted.
When a negative or self-critical thought enters the mind, able to refocus on the positive.	Unable to let go of negative or self-critical thoughts; will replay them over and over in mind, which can increase anger, hurt, or fears. Will actually rehearse negative thoughts about spouse and will play a role in the relationship deteriorating.
Allows mind to see options.	Tunnel vision. Will see limited options, which will make for difficulty in conflict resolution. “My way or the highway” is the rule. “Agree to disagree” is not an option. Overactive cingulate results in a person feeling pressure to resolve his own anxiety, then being surprised at the destructive effect it has on building intimacy.

Healthy Cingulate	Overactive Cingulate
Comfortable with others having choices in the relationship.	Unless people in relationship make choices that meet person's expectations, person becomes upset. Experienced at "controlling" in relationships.
Lives more in present. Does not look at future with fear.	Tendency to predict fear when thinking about future events.



(Side view, active scan;
front of head, left side)

Food Effects on Serotonin Levels

Foods	Effect	Mood
Pastas, potatoes, bread, pastries, pretzels, candy, popcorn	Increase serotonin	Helps balance cingulate activity temporarily . . . eventually will crave more, and mood swings will increase
Chicken, turkey, salmon, beef, peanut butter, eggs, green peas, potatoes, milk	Increase serotonin	More effective in helping the cingulate; less obsessive and more cognitive flexibility
High-protein, low-carb diet	Decreases serotonin	Increased negative reactiveness

Supplements for Serotonin Levels

Neurotransmitter and Brain Subsystem	Recommended Supplements
Low serotonin levels and increased cingulate activity are often associated with worrying, moodiness, emotional rigidity, and irritability.	St. John's wort: Dr. Amen's suggested starting dosage: • Children: 300 mg per day • Teens: 300 mg 2 times per day • Adults: 300 mg in the a.m., 600 mg in the p.m.
High serotonin levels can result in feeling spacier, being more easily distracted, and so on.	Adding L-tyrosine to St. John's wort will help increase dopamine in the prefrontal cortex so a person can be more focused and less distracted.
Serotonin is the neurotransmitter that helps balance the cingulate.	L-tryptophan: An amino acid that naturally occurs in meat and eggs; improves sleep, decreases aggressiveness, and improves mood control Downside: one needs to take large amounts to have an impact on the brain 5-HTP: 5 to 10 times more powerful than L-tryptophan and can be as effective as antidepressant medication Dr. Amen's suggested dose: • Adults: 50 to 300 mg a day • Children: should start at half-dose Take 5-HTP and L-tryptophan on an empty stomach (in fact, most amino acids work best on an empty stomach, taken with water) <i>Warning:</i> Do not take 5-HTP, St. John's wort, or L-tryptophan with an antidepressant unless supervised closely by an MD

The Basal Ganglia: The Basement of Giant Fears

Medications for Anxiety

Medication	Overview and Dosage
Neurontin	Generic name for this medication is <i>gabapentin</i> . Preferred medication if no symptoms of manic or bipolar are present. Begin at lowest dose possible, usually 100 mg, 3 times a day. Have had patients who had to start at 50 mg, 3 times a day, taking capsule and using half of it.
Gabitril	Highly effective for anxiety. Start with 2 mg tablets. Take ½ to 1 tablet nightly for 3 to 5 days, then increase to ½ to 1 tablet 2 times daily. Gradually increase until symptom management is reached.
Topamax	Starting dose usually 25 mg at night, and after 3 to 5 days, morning dose is added. Can be increased 25 mg at a time to a maximum of 100 mg, twice daily. For some people, there is a side effect of weight loss. Seems to help with sugar cravings. There are increasing numbers of research articles that point toward the use of Topamax with eating disorders. Watch for memory impairment.
Xanax	Xanax is often prescribed for panic attacks. If a person is a recovering alcoholic or there is alcoholism in the family history, attempt to use Xanax on a short-term basis since there is a risk of addiction. Many times Xanax, Klonopin, or Ativan are given with Prozac, Lexapro, Effexor, or Cymbalta. These medications, for some people, can increase basal ganglia activity while helping with depression. Many times Xanax can be reduced or eliminated if Neurontin or Gabitril are used to help calm basal ganglia overactivity. If Xanax is used on a long-term basis, it can have a side effect of depression and memory problems with some people. Make sure any elderly people in your life are carefully evaluated if using Xanax on a routine basis.

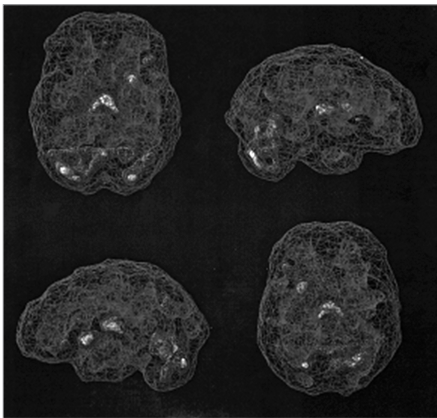
Medication	Overview and Dosage
Xyrex and Risperdal	Xyrex and Risperdal are sometimes given in small doses to help with panic and anxiety. These medications will often be used if a person is going through a bout of insomnia. These medications are part of a class called <i>novel antipsychotics</i> and are also helpful with people who struggle with bipolar or schizophrenia. In small doses, they can help with panic or sleep. They work as a dopamine inhibitor. If you use them to sleep and find it is a struggle to get going in the morning, or your brain does not “wake up” until 10 or 11 a.m, it could be the Xyrex or Risperdal causing that to happen. We need dopamine in the frontal cortex in the morning to feel motivated to even get out of bed. If you are having trouble waking up, tell your prescribing MD or your therapist.

CHAPTER NINE

The Deep Limbic System:
The Depressed Low-Mood Space

THE BASAL GANGLIA

When it is lit up on the left side, anxiety is often expressed outwardly in irritability. On the right side, anxiety is more internal.



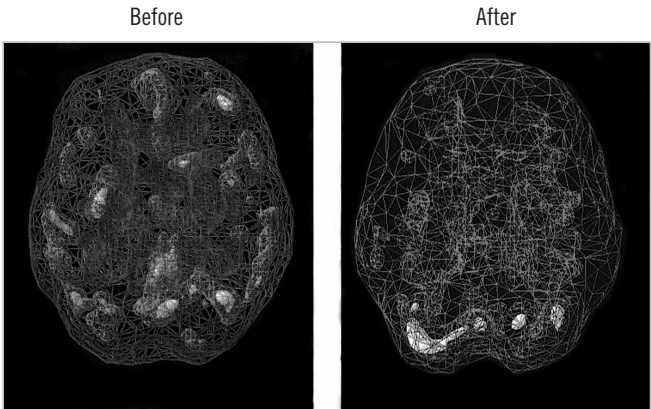
THE DEEP LIMBIC SYSTEM

When it is overactive, the SPECT indicates a combination of anxiety and sadness or depressed feelings.

(Top left: underside, active view)
(Top right: side angle, active view; front of brain on right)
(Bottom left: side angle, active view; front of brain on left)
(Bottom right: top-down, active view)

The Temporal Lobes: The Temper Lofts

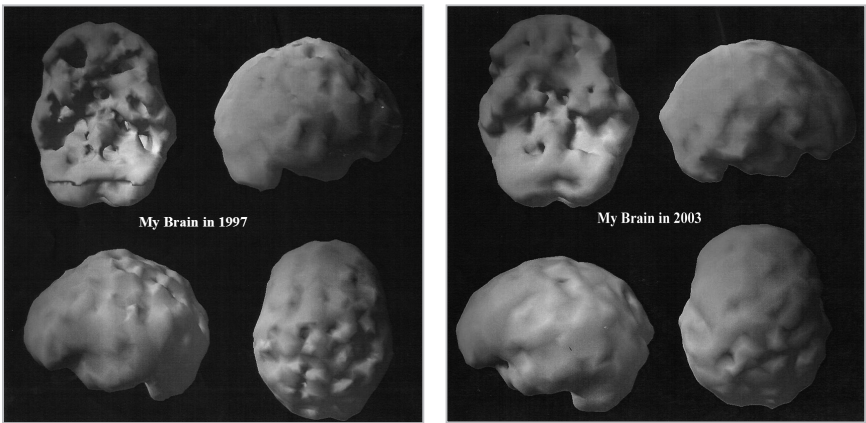
Healthy Temporal Lobes	Unstable Temporal Lobes
Person processes tone of voice consistent with the other person's intentions	Person will genuinely hear the other person as angry or critical when they are not
Accurately processes facial expressions	Tendency to overinterpret or underinterpret facial expressions; difficulty reading social cues
Manages anger, irritability, or frustration	Anger can quickly escalate out of control. There is the feeling of "walking on pins and needles" for those who live or work with someone with TL imbalances
Enjoys experience of rhythms, music, dance, and so on	Does not feel or experience music, dance, or rhythm as deeply as others
Able to access short-term memory and long-term memory under times of stress	Under stress has difficulty accessing memory whether it is short-term or long-term
May feel depressed, irritated, or hopeless but can work through it	Frustration, depression, irritation can turn into thoughts of harming self and others



(Underside, active view)

CHAPTER ELEVEN

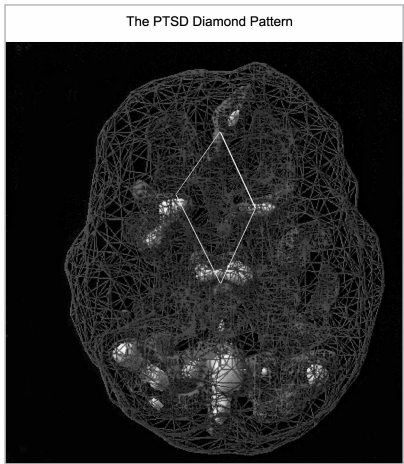
An Apostle on Joy: The *Real* Secret



(Surface views [clockwise from top left]:
underside, right side, left side, top-down)

APPENDIX C

A Different Kind of Diamond Head:
Post-Traumatic Stress Disorder



(Underside, active view)

ADDITIONAL RESOURCES

- *Healing from Trauma* by Jasmin Lee Cori, MS, LPC.

What I most appreciate about this comprehensive guide to healing from trauma is that it isn't filled with lots of trauma stories (most people who've been through their own have had their fill). It focuses on what PTSD feels like and how it happens and then gives a comprehensive list of *all* the available treatments for recovery from trauma. Some solutions will probably seem to be "out there," but many more will be very helpful.

Jasmin Lee Cori does an admirable job of presenting the information objectively and concisely. She points out that the main task of most trauma interventions is to "break up" those patterns of thinking that continue to torment us.

EMDR is one treatment I've mentioned and that I use successfully, but she also discusses others. She also mentions Dr. Amen's book *Healing from Depression and Anxiety* and says she found his recommendation for supplementation to be especially helpful to her personally.

- *Door of Hope* and *Unclaimed Baggage*, both by Jan Franks.

She and her husband, Don, have a heart for helping couples, especially those who have had their marriages interrupted by unclaimed baggage or past trauma. They offer several helps at www.janfrank.com, and all materials come from a Christian-based point of view.

- *Redeeming Love* by Francine Rivers.

I would venture to say that this is probably the most beloved, absorbing, and helpful novel written from a Christian perspective for any woman who has suffered from abuse, neglect, or abandonment. You close the book feeling refreshed and loved at a deeper level than you ever dreamed.