

#### By Daniel G. Amen, MD

As you personalize The Daniel Plan, consider your brain type and related treatments. Based on the brain imaging work at Amen Clinics, I've developed the following Action Plans based on brain type. Each Action Plan includes a brief description of the brain type, brain SPECT findings for each type, plus recommendations for the following:

- Behaviors
- Exercise
- Diet
- Supplements

### **TYPE 1: COMPULSIVE**

People with this type have trouble shifting their attention and tend to get stuck on worrisome thoughts, thoughts of food, or compulsive behaviors. They may also get stuck on anxious or depressing thoughts. The basic mechanism of this type is that they tend to get stuck or locked into one course of action. They tend to have trouble seeing options and want to have things their way. They struggle with cognitive inflexibility and tend to see too many errors in themselves and others.

This type is also associated with worry, holding grudges, and having problems with oppositional or argumentative behavior. Nighttime-eating syndrome, where people tend to gorge at night and not be hungry early in the day, often fits this pattern.

Brain SPECT findings for this type include:

Increased activity in the front part of the brain, especially in an area called the anterior cingulate gyrus which is thought of as the brain's gear shifter. This is commonly associated with low levels of the neurotransmitter serotonin.

- Learn how to distract yourself when you get a thought in your head more than three times.
- Intense exercise (see the Body Gym for more on exercise).
- A higher complex-carbohydrate diet (see **Recipes & Tips** and **Tana's Tips** for recipes and more).
- Fish oil, such as Omega-3 Power.
- Optimize vitamin D level.
- Natural ways to boost serotonin, such as exercise, complex carbohydrates, and dietary supplements such as 5HTP, inositol and saffron, the combination of which can be found in **Serotonin Mood Support**.



### **TYPE 2: IMPULSIVE**

People with this type struggle with impulsive and trouble controlling their behavior, even though they may start each day with good intentions. This type results from too little activity in the brain's prefrontal cortex (PFC), often as a result of low dopamine levels in the brain. The PFC acts as the brain's supervisor. It helps with executive functions, such as attention span, forethought, impulse control, organization, motivation, and planning.

When the PFC is under-active, people complain of being inattentive, distracted, bored, off task, and impulsive. This type is often seen in people who have ADD/ADHD (attention deficit disorder/attention deficit hyperactivity disorder), which is associated with long-standing issues of short attention span, distractibility, disorganization, restlessness, and impulsiveness.

Brain SPECT findings for this type include:

Decreased activity in the PFC, which is commonly associated with low brain dopamine levels.

- Structured goal setting.
- Intense exercise (see the Body Gym for more on exercise).
- A higher high-quality protein diet (see **Recipes & Tips** and **Tana's Tips** for recipes and more).
- Fish oil, such as Omega-3 Power.
- Optimize vitamin D level.
- Natural ways to boost dopamine include intense exercise, highly interesting activities, and dietary supplements such as green tea, rhodiola and ashwagandha, found in **Focus & Energy Optimizer**.



### **TYPE 3: IMPULSIVE-COMPULSIVE**

People with this type have a combination of both impulsive and compulsive features. On the surface it seems almost contradictory. How can you be both impulsive and compulsive at the same time? Think of compulsive gambling. These are people who are compulsively driven to gamble and yet have no control over their impulses. It is the same with these people.

This type is particularly common in the children and grandchildren of alcoholics or people who have a significant family history of alcoholism. It is also common for people with bulimia to have this type.

Brain SPECT findings for this type include:

- Decreased activity in the PFC, which is commonly associated with low brain dopamine levels.
- Increased anterior cingulate gyrus activity, which is commonly caused by low brain serotonin levels.

- Learn how to distract yourself when you get a thought in your head more than three times.
- Structured goal setting.
- Intense exercise (see the Body Gym for more on exercise).
- A balanced diet between complex carbohydrates and protein (see **Recipes & Tips** and **Tana's Tips** for recipes and more).
- Fish oil, such as Omega-3 Power.
- Optimize vitamin D level.
- Natural ways to increase serotonin and dopamine include intense exercise, a balanced diet, and a combination of dietary supplements, such as **Serotonin Mood Support** at night and **Focus & Energy Optimizer** in the morning and afternoon.



### **TYPE 4: SAD**

People with this type tend to use food or other substances to medicate underlying feelings of sadness and to calm the emotional storms in their brains. They often struggle with feelings of boredom, loneliness, depression, low self-esteem, and pain issues.

People with this type may also experience decreased libido, periods of crying, low energy levels, and lack of interest in usually pleasurable activities, as well as feelings of guilt, helplessness, hopelessness, or worthlessness.

For some people, these feelings come and go with the seasons and tend to worsen in winter. Others experience mild feelings of chronic sadness, called dysthymia. Still others suffer from more serious depressions. This type is more commonly seen in women.

Brain SPECT findings for this type include:

- Increased activity in the deep limbic areas of the brain.
- Decreased activity in the PFC, which is commonly associated with low brain dopamine or norepinephrine levels.

- Learn how to **Kill the ANTs** (automatic negative thoughts).
- Intense exercise (see the Body Gym for more on exercise).
- A balanced diet between protein and complex carbohydrates (see **Recipes & Tips** and **Tana's Tips** for recipes and more).
- Fish oil, such as Omega-3 Power.
- Optimize vitamin D level.
- Dietary supplement such as Same found in SAMe Mood & Movement Support.



## **TYPE 5: ANXIOUS**

People with this type tend use food or other substances to medicate underlying feelings of anxiety, tension, nervousness, and fear. They may be plagued by feelings of panic, fear, and self-doubt, and suffer physical symptoms of anxiety, such as muscle tension, nail biting, headaches, abdominal pain, heart palpitations, shortness of breath, and sore muscles.

People with this type tend to predict the worst and look to the future with fear. They may be excessively shy, easily startled, and freeze in emotionally charged situations.

Brain SPECT findings for this type include:

Increased activity in the basal ganglia, which is commonly caused by low levels of the calming neurotransmitter GABA.

#### **ACTION PLAN**

- Learn how to **Kill the ANTs** (automatic negative thoughts).
- Meditation (go to the **Relaxation Room** for meditation sessions).
- Hypnosis (go to the **Relaxation Room** for hypnosis sessions).
- Diaphragmatic breathing.
- Relaxing music.
- Intense exercise (see the **Body Gym** for more on exercise).
- A balanced diet between protein and complex carbohydrates (see **Recipes & Tips** and **Tana's Tips** for recipes and more).
- Fish oil, such as Omega-3 Power.
- Optimize vitamin D level.
- Dietary supplements such as GABA, B6, magnesium and lemon balm found in **GABA Calming Support**.

#### WHAT DO I DO IF I HAVE MORE THAN ONE TYPE?

It is very common to have more than one brain type. If you take the questionnaire at <a href="https://www.theamensolution.com">www.theamensolution.com</a> you can learn what to do if you have more than one type.