



## DEPRESSION TYPES & THE BRAIN

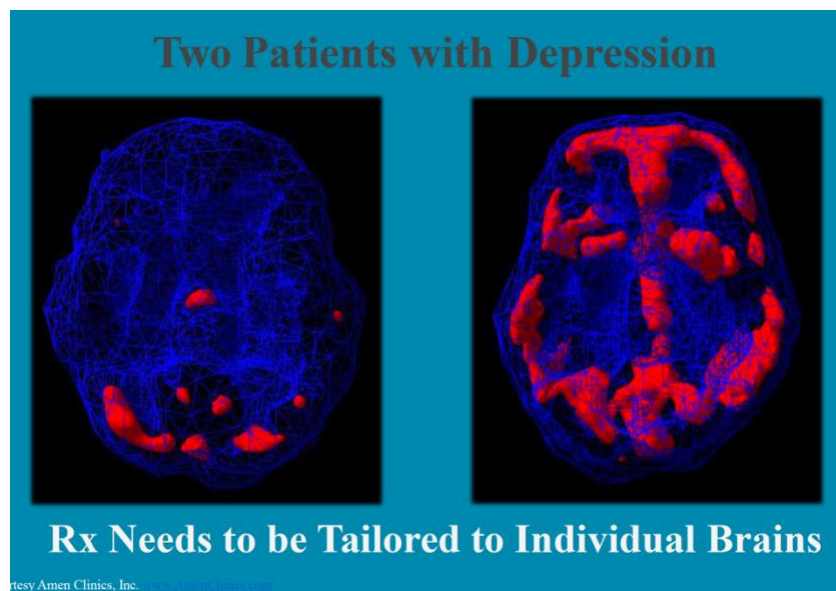
Information & image(s) taken from Dr. Daniel Amen/Amen Clinics

### Depression is One of the Great Killers of Our Time

- Affects 50 million Americans at some point
- Risk factor for:
  - Alzheimer's disease
  - Heart disease
  - Cancer
  - Diabetes
  - Obesity

To effectively treat anxiety and depression:

- Obtain an accurate brain system diagnosis
  - Use supplements and/or medications for the specific brain type
  - Psychotherapy
  - Coaching
  - Exercise
- ❖ 1/3 of all depressions related to thyroid imbalance



## **6 Brain Types Associated with Anxiety and Depression:**

### **Type 1: Pure Depression**

Pure Depression often results from excessive activity in the deep limbic system & low PFC—the brain’s emotional center. People with this type struggle with depressive symptoms that range from chronic mild sadness (dysthymia) to crippling major depression, where it’s difficult to even get out of bed.

Common symptoms of Pure Depression include:

- Persistent sad or negative mood
  - Loss of interest in usually pleasurable activities
  - Restlessness, irritability, or excessive crying
  - Feelings of guilt, worthlessness, helplessness, hopelessness, or pessimism
  - Sleeping too much or too little, or early-morning awakening
  - Appetite changes and/or weight loss or weight gain
  - Decreased energy, increased fatigue, or feeling “slowed down”
  - Thoughts of death or suicide, or suicide attempts
  - Difficulty concentrating, remembering, or making decisions
  - Persistent physical symptoms (such as headaches, digestive problems, or chronic pain)
  - Chronic low self-esteem
  - Persistent feeling of being dissatisfied or bored
- ❖ DSM diagnoses might be depression without comorbidity, major depression with anhedonia or dysthymia.

**Treatment for Type 1 - Pure Depression** (responds well to dopamine or norepinephrine):

- Cognitive therapy (ANT therapy)
- Exercise
- Diet and fish oil
- Common Medications- If increase in Cingulate positive response to SSRI, if not, then Wellbutrin; anti-depressant not SSRI
- Supplements-SAME, dl-phenylalanine, folic acid, Vitamin D, l-tyrosine

## Type 2: Mixed Anxiety / Depression

Depression and anxiety occur together 75% of the time. Mixed Anxiety/Depression involves a combination of both Pure Depression and Pure Anxiety symptoms (listed above). This type shows excessive activity in the brain's basal ganglia and the deep limbic system. One type may predominate at any point in time, but symptoms of both are present on a regular basis.

### Type 2: Mixed Anxiety and Depression

- Symptoms of both Type 1 and Type 2(High activity in the basal ganglia and limbic area)

#### **Type 1: Pure Anxiety**

Basal ganglia symptoms:

- Nervousness
  - Panic attacks
  - Avoid things that make them upset
  - Muscle tension, pounding heart, nausea and dizziness
  - Predicting the worse
  - Persistent fears/phobias
  - Conflict avoidant
  - Excessive fear of being judged by others
  - Easily startled/freezing behavior
  - Shy, timid and easily embarrassed
  - Fingernail biting/skin picking
- People feel nervous or anxious, uncomfortable in their own skin, have panic and self-doubt, irrational fears and phobias, are easily startled and may freeze in emotionally-charged situations. They tend to predict the worst and have the physical symptoms of anxiety including muscle tension, heart palpitations, shortness of breath, headaches, stomachaches, nail biting and sore muscles.

Treatment for Type 1 - Pure Anxiety:

- Cognitive therapy (ANT therapy)
  - Meditation, hypnosis (strengthens PFC) and/or relaxation therapy-calms down BG & parietal lobes
  - Biofeedback
  - Common Medications-Propranolol, Bupropion, Antiepileptic
  - Supplements-Magnesium, Relegra, Holy Basil, B6, Theanine, GABA, Valerian, Kava Kava
- **Treatment** is a combination of Types 1 and 2 (may respond well to dopamine or norepinephrine):

### **Type 3: Over-focused Anxiety / Depression**

Over-Focused Anxiety/Depression involves excessive activity in the brain's anterior cingulate gyrus, basal ganglia, and/or the deep limbic system. People with this type, which occurs more frequently in the children or grandchildren of alcoholics, have trouble shifting attention and often get locked into anxious and/or negative thoughts or behaviors.

This type has anxiety symptoms and/or depressive symptoms, and has difficulty shifting attention so they get locked into thoughts and behaviors. When combined with anxiety, people have fearful thoughts and when it is combined with depression, people get stuck on depressive thoughts – or people can get stuck on both.

This can look like:

- Obsessive-Compulsive Disorder (stuck on negative thoughts or actions)
- Oppositional Defiant Disorder
- Phobias (stuck on a fear)
- Eating disorders (stuck on negative eating behavior)
- Posttraumatic stress disorder or PTSD (stuck on a past traumatic event)
- Tourette's disorder

Common symptoms of Over-focused Anxiety/Depression include 4 symptoms from Pure Anxiety and/or Pure Depression (listed above), plus at least 4 of the following:

- Excessive or senseless worrying
- Upset when things are out of place or things don't go the way you planned
- Tendency to be oppositional or argumentative
- Tendency to have repetitive negative or anxious thoughts
- Tendency toward compulsive or addictive behaviors
- Intense dislike for change
- Tendency to hold grudges
- Difficulty seeing options in situations
- Tendency to hold onto own opinion and not listen to others
- Needing to have things done a certain way or you become upset
- Others complain you worry too much
- Tendency to say "no" without first thinking about the question

#### **Treatment for Type 3 - Overfocused Anxiety and Depression:**

- Cognitive therapy (ANT therapy)
- Thought stopping
- Exercise
- Diet (more carbs) and fish oil
- Common Medications -(Serotonin boosting)-Prozac, Zoloft, Lexapro, Celexa, Paxil, Luvox, Anafranil
- Supplements to boost serotonin availability in the brain-St. John's Wort, 5HTP, Inositol (a B vitamin), Vitamin B6, L-tryptophan

## Type 4: Cyclic Anxiety / Depression

Cyclic Anxiety/Depression is associated with extremely high activity in the brain's basal ganglia and/or deep limbic system. These areas of excessive activity act like "emotional seizures" as the emotional centers hijack the brain for periods of time in a cyclical pattern.

Cyclical disorders, such as bipolar disorder, cyclothymia, premenstrual tension syndrome, and panic attacks are part of this category because they are episodic and unpredictable.

Common symptoms of Cyclic Anxiety/Depression include 4 symptoms from Pure Anxiety and/or Pure Depression (listed above), plus periods of time with at least 4 of the following:

- Abnormally elevated, depressed or anxious mood
- Decreased need for sleep, feeling energetic on dramatically less sleep than usual
- Grandiose notions, ideas or plans
- Increased talking or pressured speech
- Racing thoughts
- Markedly increased energy
- Poor judgment leading to risk taking behavior (departure from usual behavior)
- Inappropriate social behavior
- Irritability or aggression
- Delusional or psychotic thinking

Temporal lobe symptoms:

- Short fuse
- Rage reactions
- Misinterprets information
- Periods of spaciness or panic/fear for no reason
- Visual or auditory changes/déjà vu
- Headaches or bellyaches
- Head trauma
- Family history of violence
- Dark thoughts, possibly suicidal or homicidal
- Forgetfulness/memory problems

### Treatment for Type 4 - Cyclic Anxiety / Depression:

- DHA fish oil (in addition to anticonvulsant medication for bipolar disorder)
- Stress management
- Exercise
- Meditation
- Supplement-GABA.

## Type 5: Temporal Lobe Anxiety / Depression (GABA)

Temporal Lobe Anxiety/Depression is related to too little or too much activity in the temporal lobes (involved in moods, emotions, and memory), in addition to overactivity in the basal ganglia and/or deep limbic system.

Common symptoms of Temporal Lobe Anxiety/Depression include 4 symptoms from Pure Anxiety and/or Pure Depression (listed above), plus at least 4 of the following:

- Short fuse or periods of extreme irritability
- Periods of rage with little provocation
- Often misinterpreting comments as negative when they are not
- Periods of spaciness or confusion
- Periods of panic and/or fear for no specific reason
- Visual or auditory changes, such as seeing shadows or hearing muffled sounds
- Frequent periods of déjà vu
- Sensitivity or mild paranoia
- Headaches or abdominal pain of uncertain origin
- History of head injury
- Family history of violence or explosiveness
- Dark, frightening, or evil thoughts that may involve suicidal or homicidal thoughts
- Periods of forgetfulness or memory problems
- Preoccupation with religious thoughts

Symptoms include cycles of:

- Mood changes
- Decreased/increased need for sleep
- Grandiose notions
- Increased talking/pressured speech
- Racing thoughts
- Poor judgment
- Inappropriate social behavior
- Irritability or aggression
- Delusional or psychotic thinking

### Treatment Type 5: Temporal Lobe Anxiety / Depression:

- Anti-seizure medication (if necessary)
- Supplement GABA (for anxiety/irritability)
- Exercise
- Fish oil
- Cognitive therapy
- Higher protein/lower carb diet such as a ketogenic diet.
- If this type is related to PMS, balancing hormones can be helpful.

- ❖ DSM categorization is the bipolar spectrum disorders. Temporal lobe problems, particularly from brain injuries, can look similar although temporal lobe symptoms are more fixed rather than cyclic.

## Type 6: Unfocused (Lights are Low) Anxiety / Depression

In this type caused by overall reduced blood flow and activity in the cortex along with too much activity in the basal ganglia and/or deep limbic system. which can cause people to be inattentive, unfocused, distracted, bored and impulsive. This type is often seen in people with ADD or is the result of toxic exposure, hypoxia or an infection like Lyme disease and chronic fatigue syndrome.

Unfocused Anxiety/Depression is associated with low activity in the prefrontal cortex (PFC) in addition to high activity in the basal ganglia and/or deep limbic system. The PFC is involved with attention, focus, impulse control, judgment, organization, planning, and motivation. When the PFC is under-active, people often have problems with these executive functions.

Distinguishing Unfocused Anxiety/Depression from ADD/ADHD can be difficult because of the similarity in symptoms. However, brain imaging provides a window into the brain to see the areas with too little or too much activity. This allows for a more accurate diagnosis.

Symptoms of Unfocused Anxiety/Depression include at least 4 items from the Pure Anxiety and/or Pure Depression (listed above), plus at least 4 of the following:

- Trouble staying focused
  - Spaciness or feeling in a fog
  - Overwhelmed by the tasks of daily living
  - Feeling tired, sluggish or slow moving
  - Procrastination, failure to finish things
  - Chronic boredom
  - Distractibility
  - Forgetfulness
  - Difficulty expressing feelings
  - Lack of empathy for others
  - Losing things
  - Poor planning skills
  - Feelings of sickness
- ❖ DSM diagnosis might be depression secondary to a medical condition or depression with cognitive impairment. ADD can be comorbid with this type.

### Treatment for Type 6 - Lights are Low Anxiety and Depression:

- Transcranial magnetic stimulation (rTMS)
- Biofeedback in prefrontal regions
- Hyperbaric oxygen treatment
- Exercise
- Diet/fish oil
- Common Medications-Ritalin/Concerta/Metadate/Daytrana, Adderall/Vyranse, Dexedrine, Provigil/Nuvigil, Strattera
- Supplements that stimulate the brain-SAME, L-tyrosine, Ginkgo, Green tea, Rhodiola, Ginseng, Ashwaghandha, Phenylalanine, Iron, Zinc