MOOD DISORDERS, NEUROTRANSMITTERS, INFLAMMATION AND METHYLATION...WHAT’S THE CONNECTION?

Brought to you by:

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What Actually Creates Our Moods?

[Image: Cartoon characters labeled 'SEROТОНИН AND THE DOPAMINES' and 'THE HAPPINESS TOUR']
Let's Learn about the brain and neurotransmitters

THE BRAIN WALL

- **Excitatory Neurotransmitters**
  - Low: Fatigue, Lower Focus, Weight Gain
  - High: Sleep Trouble, Anxiety, Tension, Self

- **Anterior Cingulate**
  - Low: Fatigue, Low Focus, Low Motivation, Low Mood
  - High: Anxiety, Irritability, “Cat in Line”, “Too Much Caffeine”, Tension

- **Pre Frontal Cortex**
  - Low: Low Attention, ADD
  - High: Sleep Difficulty, Mind Wandering, Anxiety

- **Basal Ganglia**
  - Low: Low Energy, Low Focus
  - High: Addictive Quality, Xanax, Klonopin, Addictive Natural GABA, Non Addictive

- **Inhibitory Neurotransmitters**
  - Low: Anxiety, Insomnia, Depression, Uncontrolled Appetite, Panic
  - High: Sleep Trouble, Mood Swings, Sleeplessness, Irritability

- **Thalamic/Limbic**
  - Low: Low Energy, Low Focus
  - High: Addictive Quality, Xanax, Klonopin, Addictive Natural GABA, Non Addictive

- **Temporal Lobe**
  - Low: Low Energy, Low Focus
  - High: Addictive Quality, Xanax, Klonopin, Addictive Natural GABA, Non Addictive

- **BRAIN WALL**
  - www.jessearmine.com
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HPA/HPT/HPG Axis

Distress or imbalance in one axis can cause dysfunction in all three.

http://rlv.zcache.com/the_hypothalamic_pituitary_axes_poster

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Moods are the **EXPRESSION** of the Neurotransmitters in your Brain

http://choosinghealthnow.com/blog/does-this-neurotransmitter-make-my-butt-look-fat/
Causes of Distress and Imbalances

Immune
- Toxins
- Xenobiotics
- Dietary peptides
- Dysbiosis
- Bacterial
- Viral
- Fungal
- Parasites

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Leaky Gut Creates Inflammation

Factors affecting mucosal immune system resulting in intestinal barrier dysfunction, autoimmunity and nervous system abnormalities

- Dietary Proteins & Peptides
- Antibodies
- Drugs & Xenobiotics
- Physical Stress
- Infections
- Cytokines
- Neurotransmitters
- Enzymes

INTESTINAL BARRIER DYSFUNCTION

- FOOD ALLERGY & INTOLERANCE
- IMMUNE SYSTEM ABNORMALITIES
- AUTOIMMUNITY

INFLUENCE ON THE BLOOD-BRAIN BARRIER AND NEUROAUTOIMMUNITY

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What can Inflammation do to us?

The Methylation-Neurotransmitter Connection

http://www.easylolovebut.com/?p=2782

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Mood Disorders have numerous causes

How are they identified?
If simple treatment does not resolve your mood disorder then the root of your issue is more complex.

An investigation into the possible causes of your symptom complex is necessary.
Root Cause Analysis can include:

- Neurotransmitter and stress hormone testing to identify the level of adrenal stress
- Looking at gut function for Leaky Gut Syndrome, food allergies, candida, dysbiosis, etc…
- Looking for immune dysfunction from possible metal allergies, chronic viral, bacterial, fungal or auto-immune disease.
- **Most of all, root cause analysis requires someone who can…**
Think Like a Detective!
PRIMARY COMPLAINTS OF DEPRESSION & ANXIETY

THE TRADITIONAL MEDICAL ROUTE:

- Antidepressant Medications like Prozac, Zoloft, Lexapro (SSRI)
- If that doesn’t work after 4-6 weeks. Then, maybe, Wellbutrin (SNRI, SDRI)
- If that doesn’t work after several weeks, then maybe one of the newer meds like Pristiq or maybe referral to a psychiatrist for even stronger meds.
- Let’s not forget the Ativan for the anxiety
- None of this gets at the CAUSE

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Identify the cause of the symptoms by taking a good history and utilizing appropriate testing if necessary. Such as, urine/saliva test to determine the stress hormone and neurotransmitter balance, stool tests to identify dysbiosis, assess the integrity of the cell wall, consider mitochondrial dysfunction and epigenetic contribution to the syndrome.
Based on the results nutritional treatment with the appropriate nutrients will be initiated. Such as amino acids will build up the reserves of the hormones and neurotransmitters within the nerve cells.

Or High dose Vitamin C to support the immune system and heal the adrenal axis.

Genetics (epigenetics) are easy to read (I know…sacrilege!) but treating polymorphisms at the right time and in the correct manner requires:
Methylation Experts

ACAT CBS COMT GAD NOS FUT2 VDR

clinical nutritionist
Shawn Bean

GI TRACT THYROID ADRENALS LIVER KIDNEYS BRAIN

Dr. Tim Jackson

Dr. Jess Armine

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To Address Mood Disorders, you MUST consider

Not only Neurotransmitter imbalances but:
  • Causes of inflammation
  • The integrity of the cell wall
  • Mitochondrial function
  • Nutritional deficiencies
  • Genetic polymorphisms
  • Nutrigenomics
  • And more…