From Disgrace to Grace: Understanding the Shame of Resistance

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Why Do Individuals With A Substance Use Disorder Deny That There Is A Problem and Resist Treatment?

Self-Control

- **Substance Use Disordered individuals seek control, not abstinence**

Impact of Substance Use Disorders on Individuals and Families

- Negativism
- Isolation
- Inconsistency in relationships
- Denial
- Miscarried expression of anger
- Self-medication
- Unrealistic expectations
- Unwilling to ask for help

Why Do Individuals with a Substance Use Disorder Refuse to Get Better and Run Away from Any Type of Help

Two primary reasons for resistance to seek help for addictions has been discovered recently:

Shame- the stigma of being an addict or alcoholic in this culture is one of the most shaming experiences that an individual exposes themselves and their families to in their lifetime;

The Depletion of the Dynorphin and Oxytocin systems as a result of the disease process of addiction.

This short presentation will explain both of these powerful events.

What Does Shame and the Loss of the Dynorphins and Oxytocin Do to a Substance Use Disordered Individual?

Shame simply causes the individual to not seek help from anyone-"I can do this all by myself" is the theme of this life-in reality the failure to control one's drinking and using causes tremendous internal shame that creates an inability to ask for help for their addiction without severe consequences occurring first;

The loss of the dynorphin and oxytocin systems as a result of an addiction causes an individual to lose their natural bonding to those individuals and situations that the person is connected(family, church, community, close friends). They will deceive, lie, hide, and simply not respond to these individuals concerning their drinking or drugging.

What Is Shame?

Shame by its nature is contagious. Moreover, just as shame has an intrinsic tendency to encourage hiding so there is a tendency for the observer of another's shame to turn away from it." (Helen Block-Lewis)

"...linguistic scholars assume a connection to an early form of the word 'to cover'..." (Helen Block-Lewis)

"Too much shaming does not lead to genuine propriety but to a secret determination to try to get away with things, unseen...if indeed, it does not result in defiant shamelessness." (Erik Erickson)

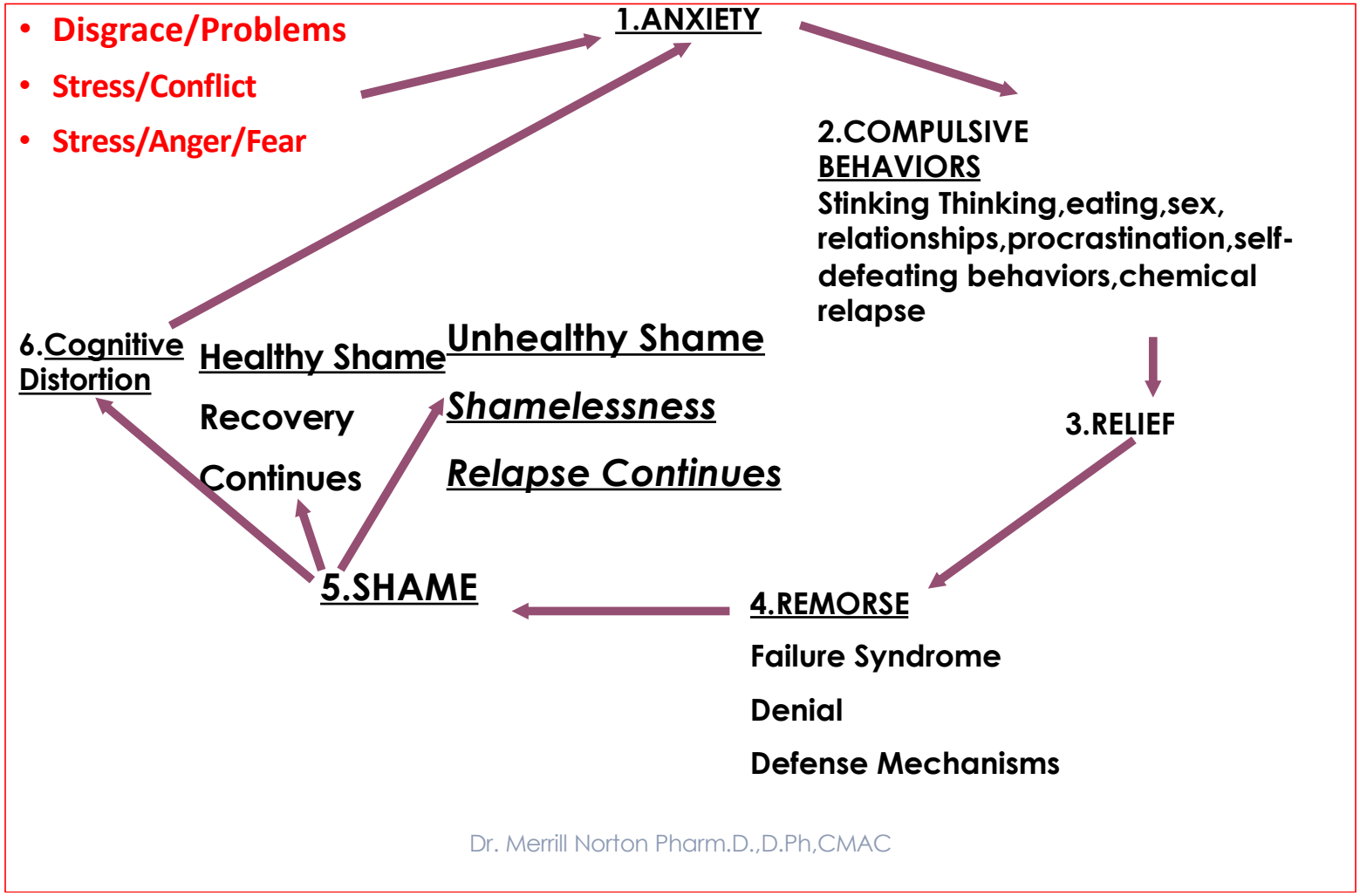
Mary Casey Ladd, LMSW, LMFT (1990)

Shame and Substance Use Disorders

From Disgrace To Grace

- **The Shame-Anxiety Cycle**
- **Unhealthy and Healthy Shame**
- **The Neurochemistry of Shame**
- **The Twelve Step Applications to Recover from Shame-Anxiety Cycle**

The Shame-Anxiety Cycle



Stinking Thinking Statements-
“ I Can Do This All By Myself ”
“ Leave Me Alone “

- **The Permission To Recover**
  - **“I Need Help”**

1. Ask for directions

2.“How Do I Recover Today”

3. Follow the directions

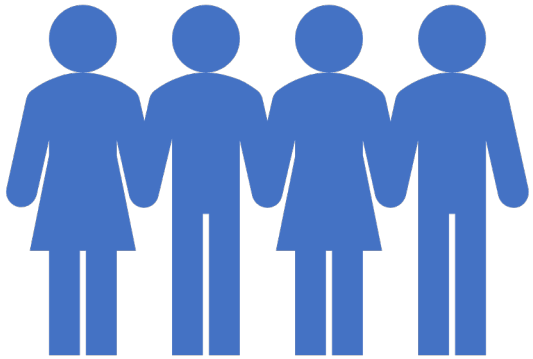
4. Repeat the Process

Shame and Development

- **“Shame is embedded in the attachment system and occurs in the first stages of life in response to perceived rejection or separation from caregivers.**
- **Shame alerts the child to the threat of separation, and then action can be taken to protect the attachment bond.**
- **The cycles of attachment rupture and repair in the infant-caregiver dyad are fundamental for emotional regulation and shame plays an important role in this process”**

- **Schimmenti, 2012, p. 202**

Shame and Substance Use Disorders



- Unhealthy Shame keeps one's self from seeking help
- Unhealthy Shame limits one's options to change
- Unhealthy Shame is a cultural stigma
- Unhealthy Shame is a societal stigma
- Unhealthy Shame stops many people from obtaining true happiness in life

Definitions Related To Substance Use Disorders

- **Stigma:**
- Erving Goffman, traditionally the best-respected authority on the subject of stigma, defined stigma as *"an attribute that is deeply discrediting" and described the stigmatized individual as "a discredited person facing an unaccepting world"* (Goffman, 1963).
- **Guilt:**
- The uncomfortable feeling we often experience when we have done something wrong ; Guilt is based on a failure of doing ; Guilt involves a violation of standards.

Definitions Related To Substance Use Disorders

- **Unhealthy Shame:**
- The pervasive feeling that who we are, rather than what we have done, is condemnable, and therefore we are unworthy, unlovable, and defective. Unhealthy shame sufferers have taken on the shame that rightfully belongs to another. Children of addicted parents are an example of this type of shame.

- **Healthy Shame:**
- A balance between knowing what is morally right or wrong and having remorse for our actions and taking responsibilities for our mistakes.

Unhealthy Shame

1.Self-Alienation and Isolation

2. False Self

3. Codependency

4. Fuel for all other Addictions

5. Shamelessness (Denial)

Self-Alienation and Isolation = False Self

Shame-based alienation causes a person to never feel a sense of true belonging in their adult relationships.

Shame-based alienation is what causes the creation of a false self, where one's self-worth comes from others rather than from within.

This false self-worth is what promotes co-dependent adult relationships.

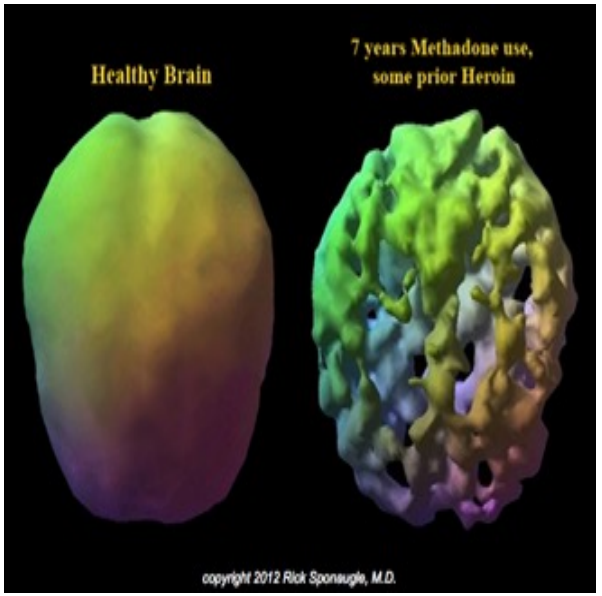
Feeling Shame

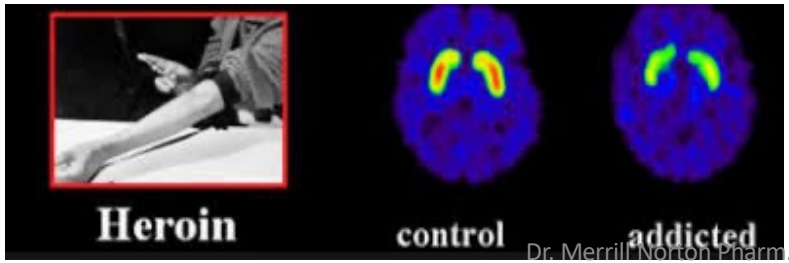
The Self in shame feels to be defective, degraded and diminished: not in good shape.

Shame seems not only to form, but also to deform the self or at least the self-image.

Substance Use Disorder Effects on the Brain

- Long term SUD can lead to areas of the brain “going dark” or the creation of a functional hole in the brain, other areas of the brain will begin to shrink.

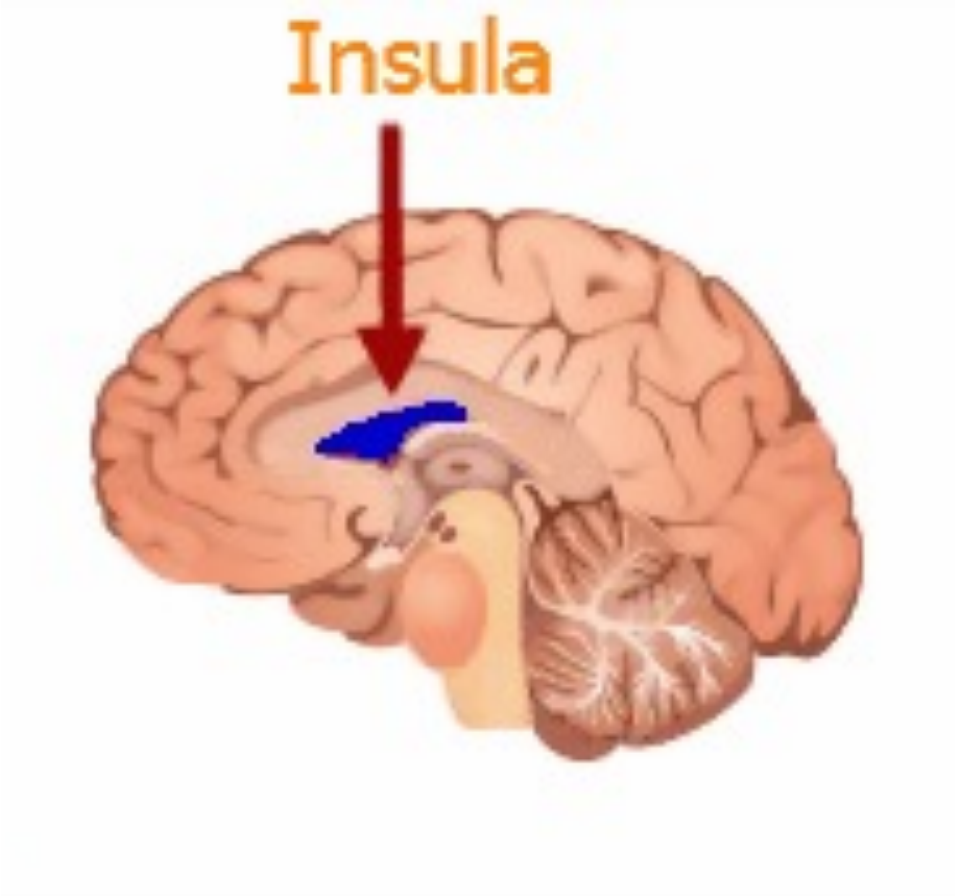




So Why Does Unhealthy Shame and Trauma Stop Individuals From Seeking Help??

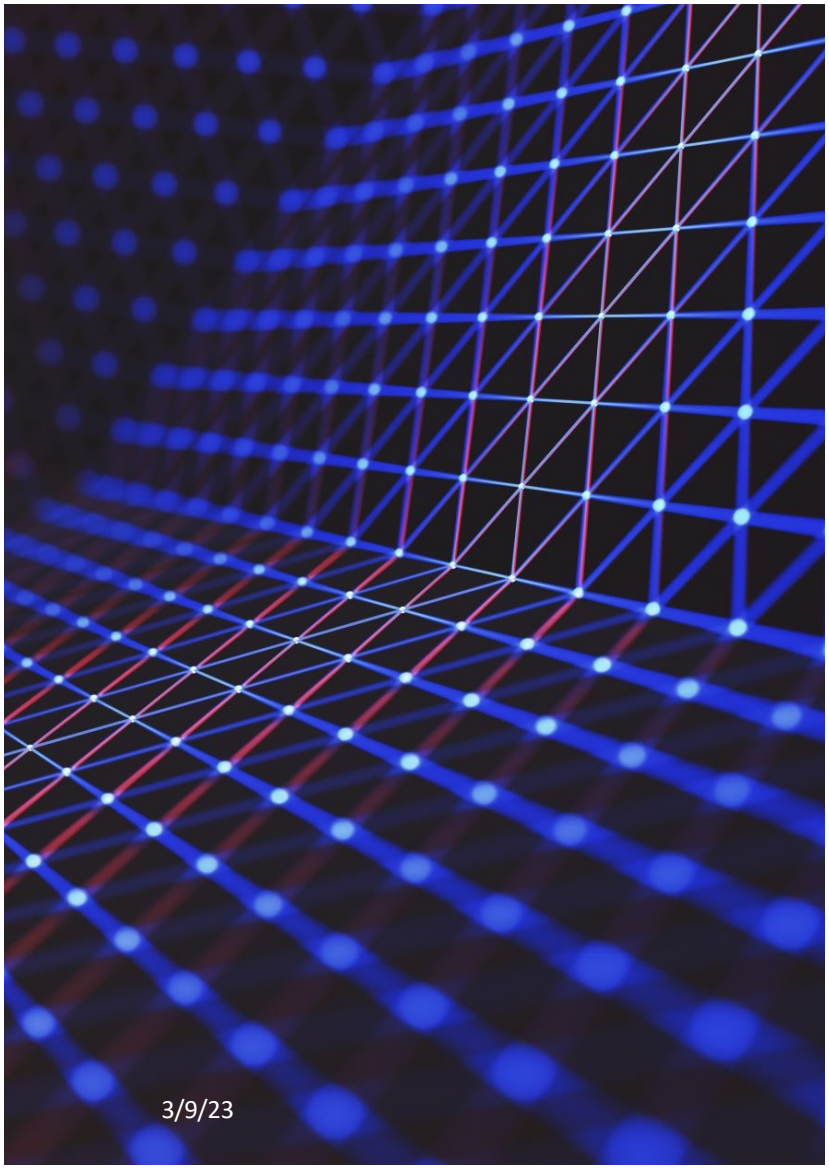
- **Some recent studies may give us some insight into this dilemma:**
- **Damage to the anterior insula cortex and an enlarged amygdala by addiction/trauma is associated with depleted mirror neurons which may diminish the recognition negative feelings of unhealthy shame by possibly deactivating the anterior insula cortex.**
- **This may lead to the diminished emotion of being shamed and causes feelings of anger, anxiety, and fear, which may cause an overactive amygdala(enlarged) which may lead to depression and anxiety.**

- Scuppa G, Tambalo S, Pfarr S, Sommer WH, Bifone A. Aberrant insular cortex connectivity in abstinent alcohol-dependent rats is reversed by dopamine D3 receptor blockade. Addict Biol. 2020 May;25(3):e12744. doi: 10.1111/adb.12744. Epub 2019 Mar 24. PMID: 30907042; PMCID: PMC7187338.
- Senatorov VV, Damadzic R, Mann CL, Schwandt ML, George DT, Hommer DW, Heilig M, Momenan R. Reduced anterior insula, enlarged amygdala in alcoholism and associated depleted von Economo neurons. Brain. 2015 Jan;138(Pt 1):69-79. doi: 10.1093/brain/awu305. Epub 2014 Nov 2. PMID: 25367022; PMCID: PMC4285187.



The Insula: Shame Generator ???

- **In a paper published in the journal *Social Cognitive Affective Neuroscience* in 2014, researchers carried out fMRI studies on subjects to determine if and where the brain reacts to shame. The researchers followed an imaging paradigm originally employed by Takahashi et. al. that the research team adapted from Japanese culture to their German culture.**
- **Their researchers showed shame-inducing stimuli to test subjects as they lay in an fMRI machine to see where in the brain they saw activation by measuring blood flow. What they observed changed the way we look at the brain and its response to shame.**
- **The research team found several vital brain regions reacted to shame stimuli, including the frontal lobe which contains both the amygdala and a little known (at that time) brain structure called the insula.**
- **The Neuroscience of Shame** by Shirley Davis | Apr 11, 2019 | CPTSD, Healing from Toxic Shame



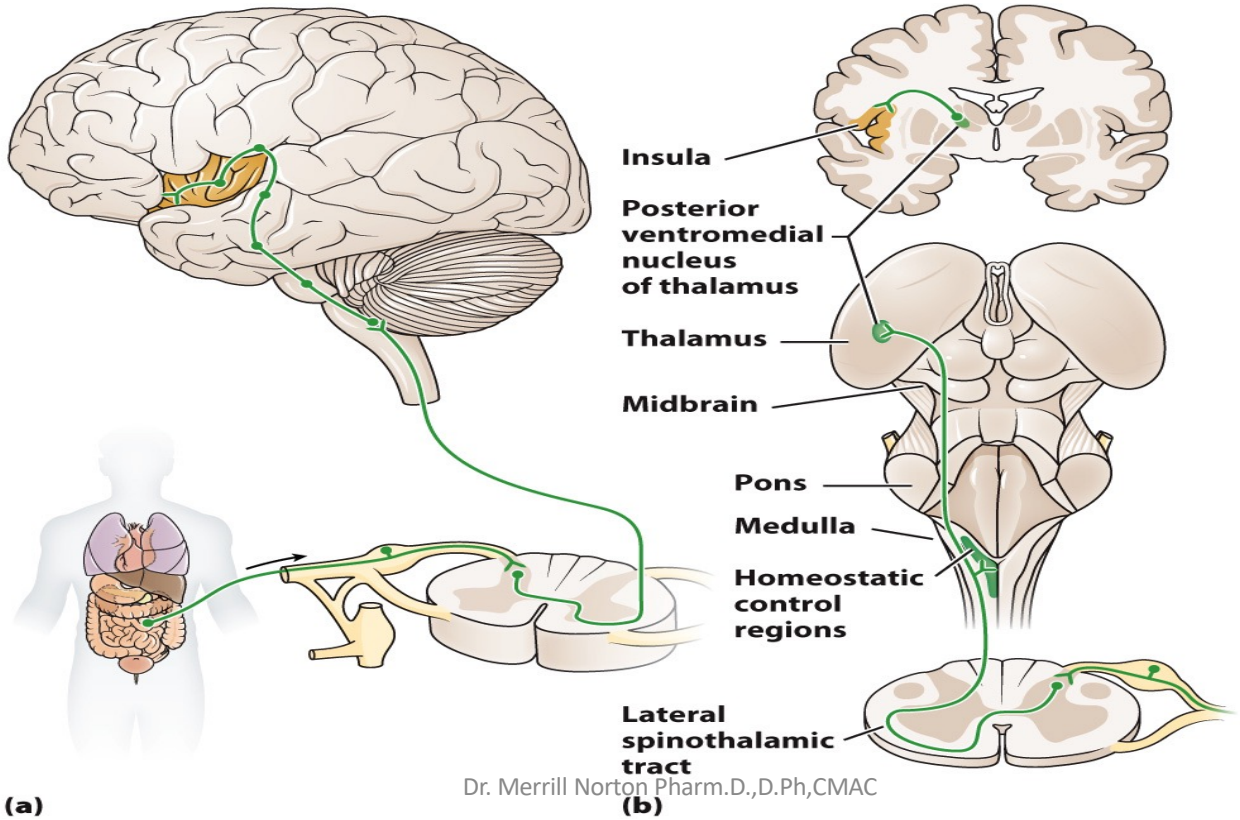
The Insula

The insula plays a key role in the development of the sensation of self and self-awareness which enables the development of insight. **Which is key to making good decisions with regards to ourselves or trusting others.**

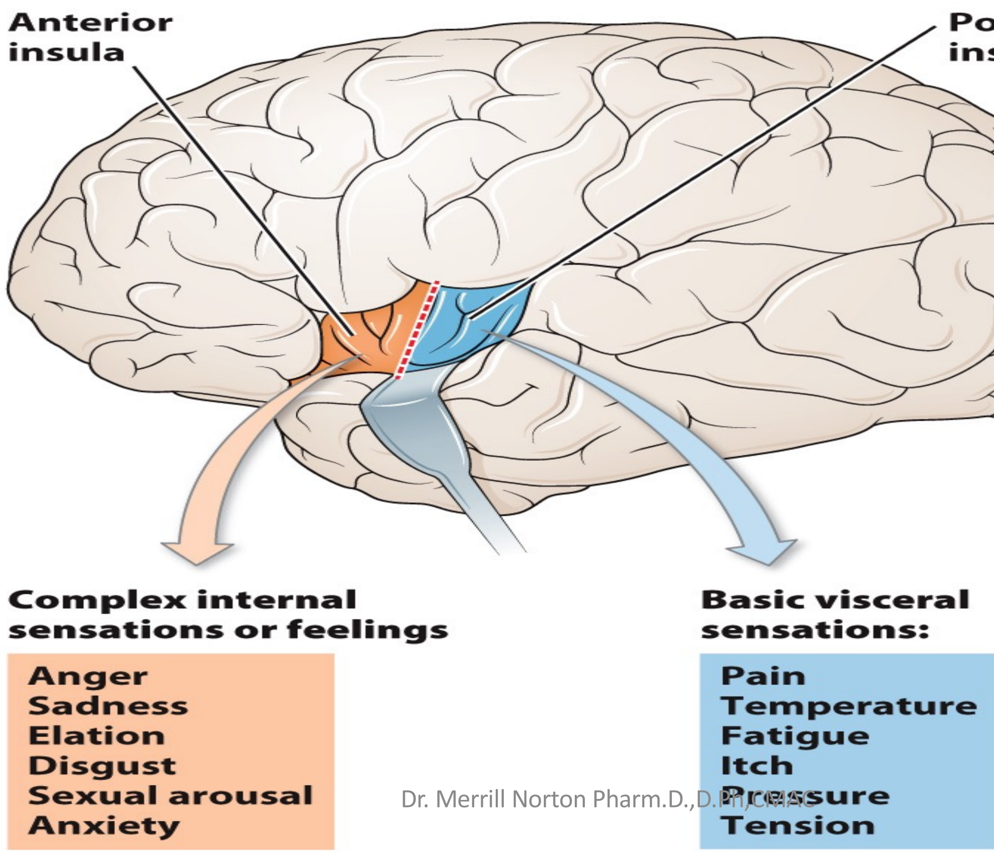
When we attune to another's behavior and expressions of intention – facial expressions, body gestures, tone of voice, mirror neurons fire in our brain. Information from these mirror neurons travels from the cortex of our brain through the insula.

The Neuroscience of Shame by Shirley Davis | Apr 11, 2019 | CPTSD, Healing from Toxic Shame

The Interoceptive Insula: The "Feeling" Side of Emotions



The Interoceptive Insula: The “Feeling” Side of Emotions



The Insula plays a key role in Interoception - that sense of bodily feelings

Anger

Joy

Shame

Empathy

Disgust

Anxiety

Sadness

Fear

Important Questions

Why is it that we get so deeply involved in such things as sports, videogames, movies, dances, and addictions?

Why is it that we have such strong emotional responses?

How is it that we can read other people's body language and faces so well?

What is it that allows us to connect so deeply when we watch other humans?

The Answer? ...Mirror Neurons!

- A special circuitry found on both sides of the brain that helps us whenever we look at each other
- Give us the ability to connect with one another
- The brain's way of translating what we see so we can relate to the world and understand it

Think About Actors

- Experts of the mirror neuron system
- Humans instinctively respond to emotion seen in other's faces and bodies

Mirror Neurons

- Evolutionary perspective-survival (example is a herd of cattle and one perceives a predator)
- The sensation of “feeling at one” with another
- A feeling of “intuition”
- Related to:
  - **THERAPEUTIC RELATIONSHIP**
  - **EMPATHY**
  - **SHAME**

Mirror Neuron Dysfunction

Many researchers have concluded that Autism is the result of Mirror Neuron Dysfunction

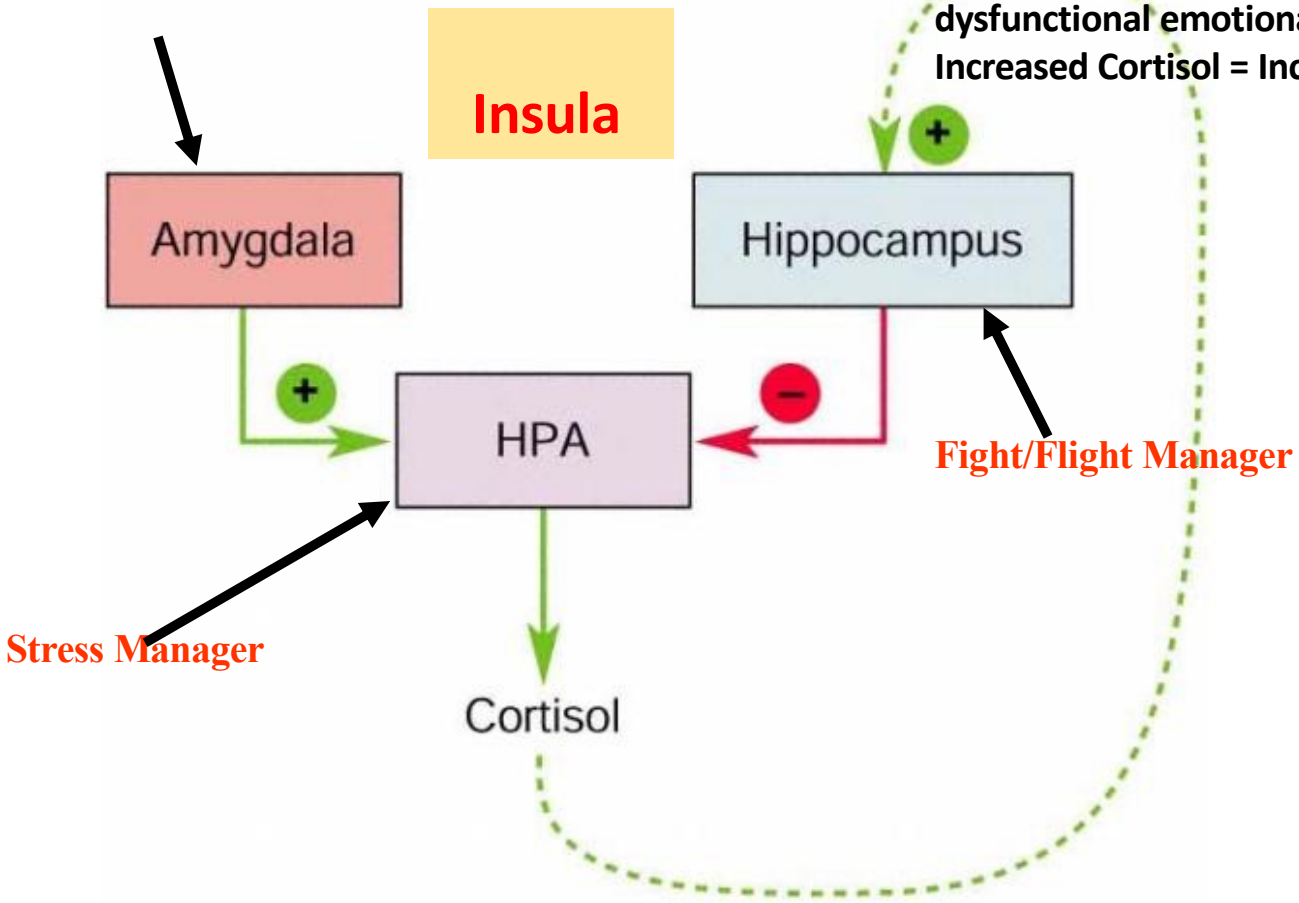
Is Shame a Mirror Neuron Dysfunctional????

How To Recover From Shame

- Stabilization, Trust and Safety
- Learn to Live Gracefully in the Present
- Develop Higher Order Functions
- Establish a Sense of Self
  - Personality

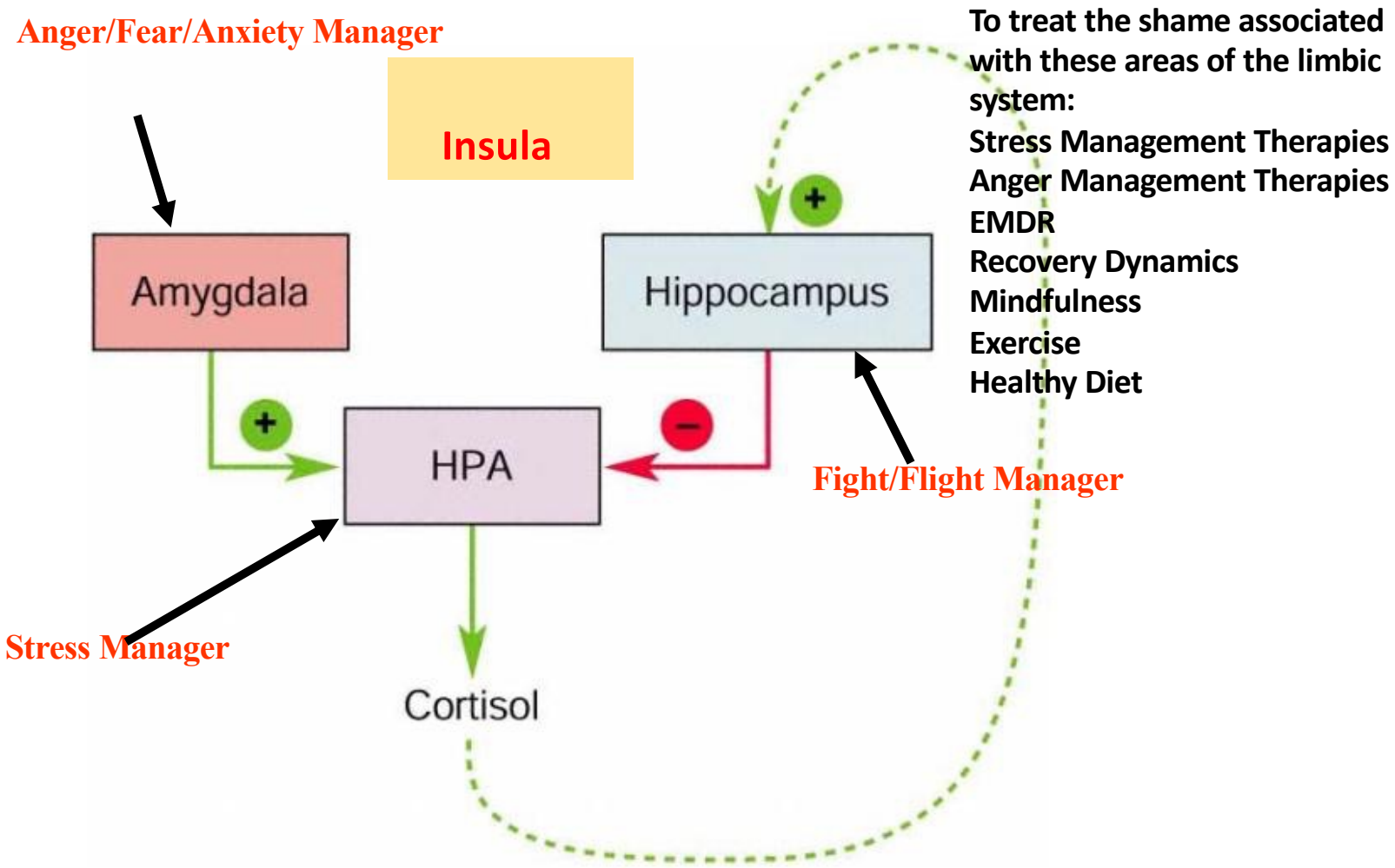
Anger/Fear/Anxiety Manager

Shame Changes all Three Areas of the Limbic System creating various dysfunctional emotional states: Increased Cortisol = Increased Stress



Fight/Flight Manager

Stress Manager


Anger/Fear/Anxiety Manager
Insula
Amygdala
Hippocampus
HPA
Cortisol
Stress Manager
Fight/Flight Manager
To treat the shame associated with these areas of the limbic system:
Stress Management Therapies
Anger Management Therapies
EMDR
Recovery Dynamics
Mindfulness
Exercise
Healthy Diet

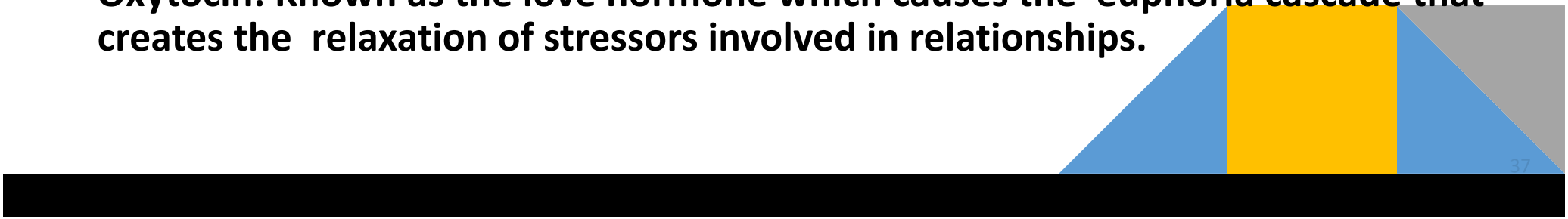
Human Bonding Begins at birth..so does a Substance Use Disorder

Repeating Cycle = Substance Use Disorders

- **Each time the cycle is repeated**
- **Each stage intensifies**
- **Brain stress system leading to Addiction!**

The Reward Cascade

- **Dopamine** responsible for pleasure, perception, and movement-first be activated when drinking or using; (First to be depleted with high doses and continuous use)
- **Endorphins** responsible for pain management in the central nervous system and reinforcement of pleasurable activities- second to be activated in the cascade usually when there is a pattern of regular use; Initially attempts to replace function of dopamine as it is depleted but is eventually depleted also;
- **Dynorphins responsible for stress management and human bonding. Initially brain uses dynorphin to reset the deficient dopamine and endorphin systems but due to increased dose and use-the system is also depleted.**
- **Oxytocin: Known as the love hormone which causes the euphoria cascade that creates the relaxation of stressors involved in relationships.**



Results of Loss of Brain Reward Cascade

- **Dopamine: Loss of experiencing normal pleasures; normal perceptions; and movement;**

- **Endorphins: Loss of pain management(increased sensitivity to any type of pain) and increased reinforcement of drug of choice (brain begin to chose which drug it prefers);**

- **Dynorphins: Loss of stress management and important human relationships become less important. Dysphoria of withdrawal from drug.**
- **Oxytocin: Loss of pleasurable interactions of trusting relationships.**

Impact of Substance Use Disorders on Individuals and Families

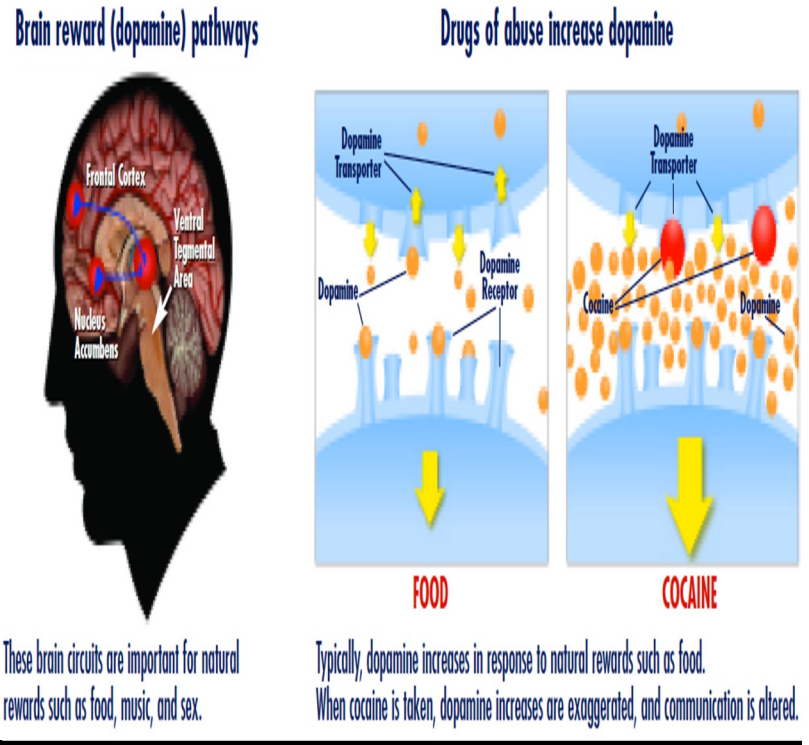
- Negativism
- Isolation
- Inconsistency in relationships
- Denial
- Miscarried expression of anger
- Self-medication
- Unrealistic expectations
- Unwilling to ask for help

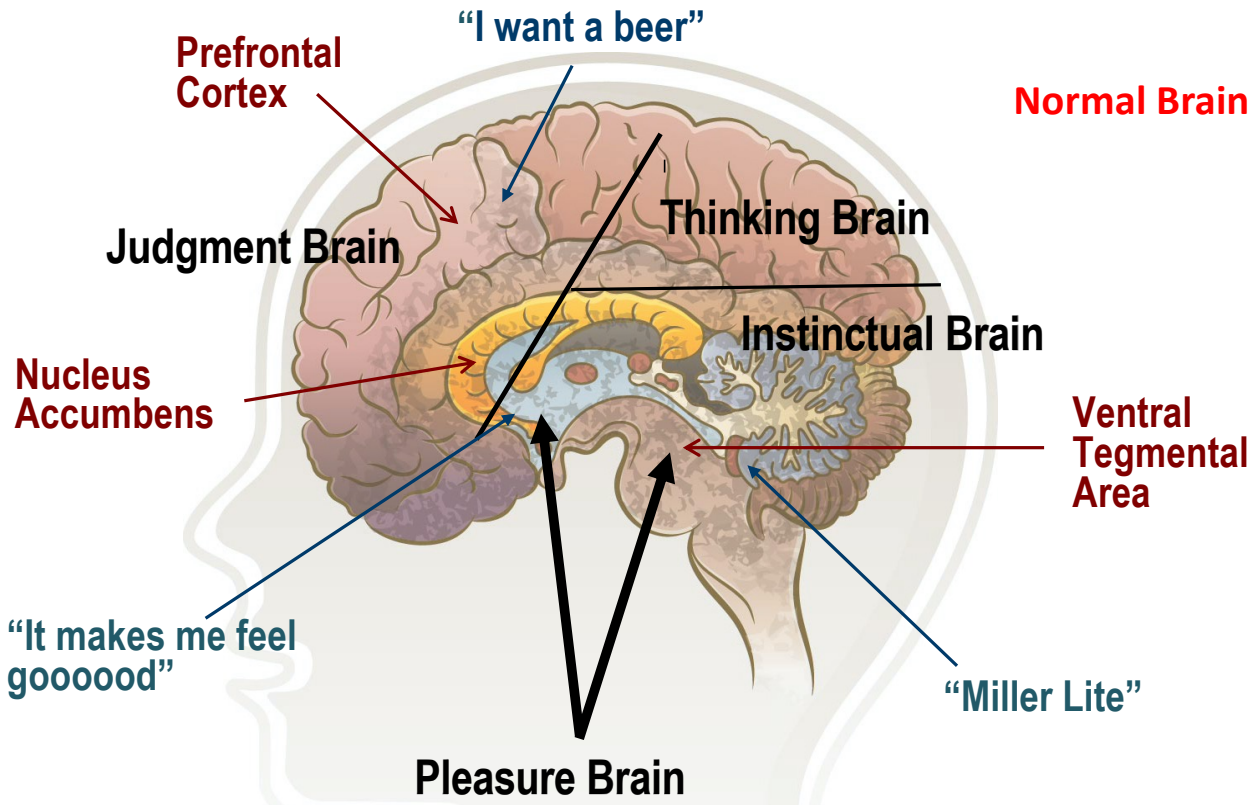
A *(very)* Brief Overview of the Neurobiology of Addiction

Dopamine – Like: Occasional Use

Endorphins- Want: Pattern of Use

Dynorphins- Craving: Addiction





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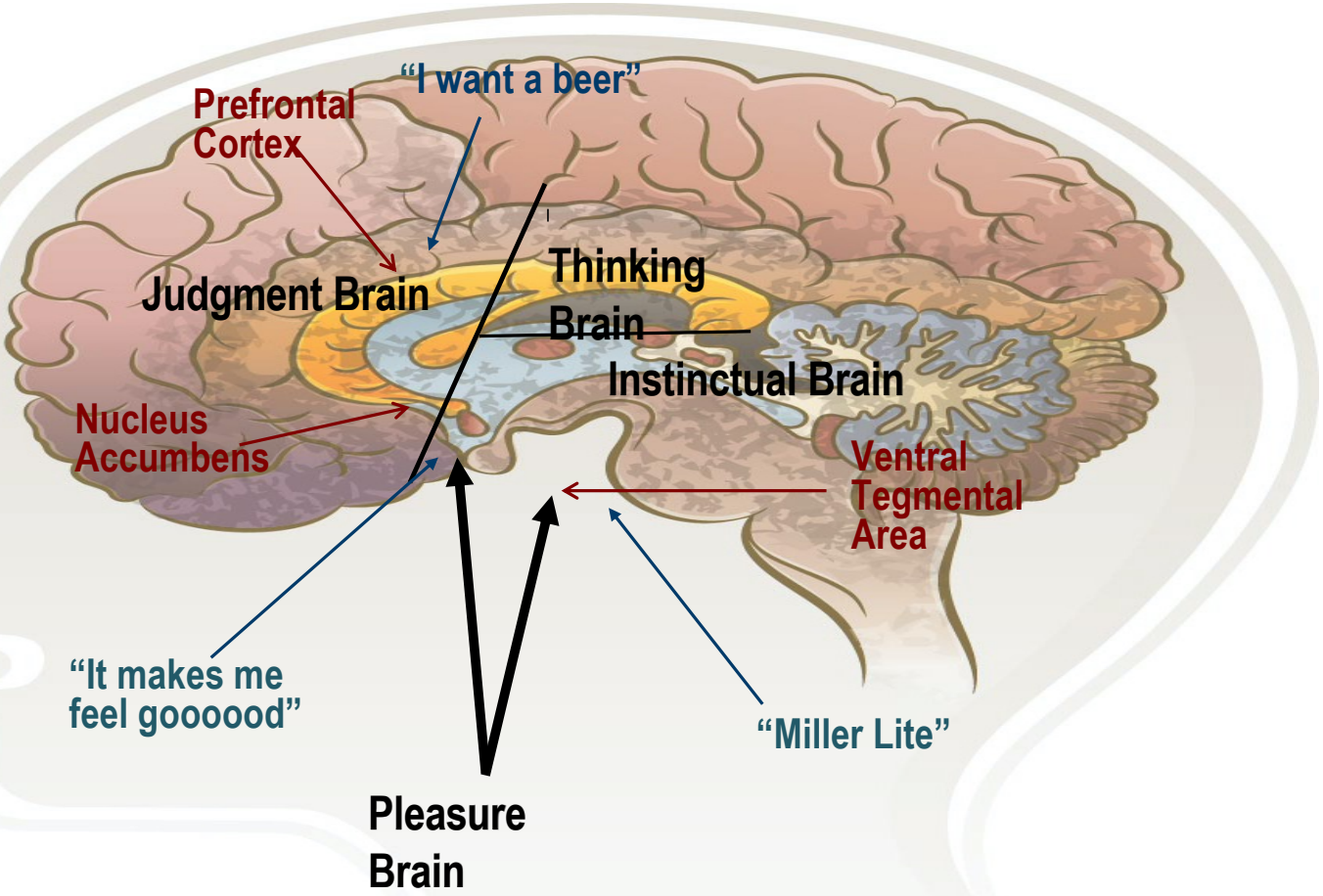
By Dr. Merrill Norton, Pharm.D., D.Ph., ICCDP-D, University of Georgia, College of Pharmacy Athens, Georgia



Addicted Brain

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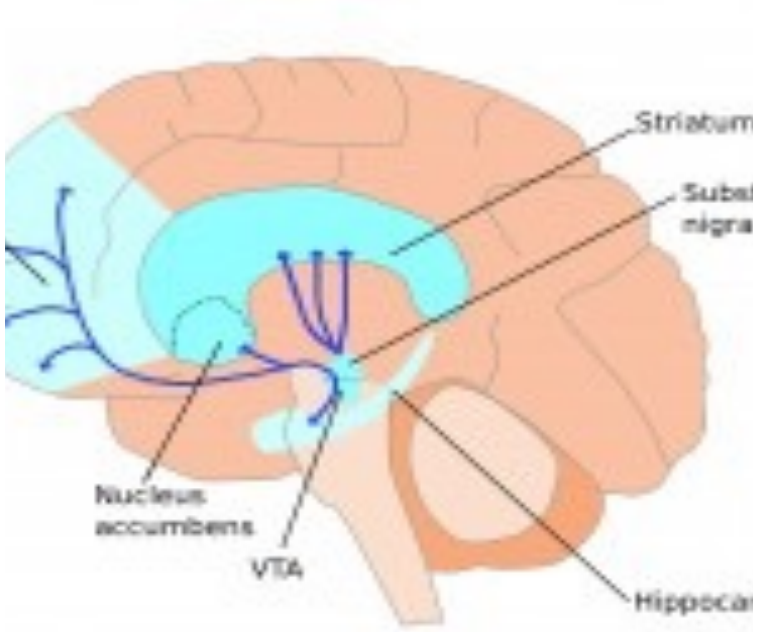
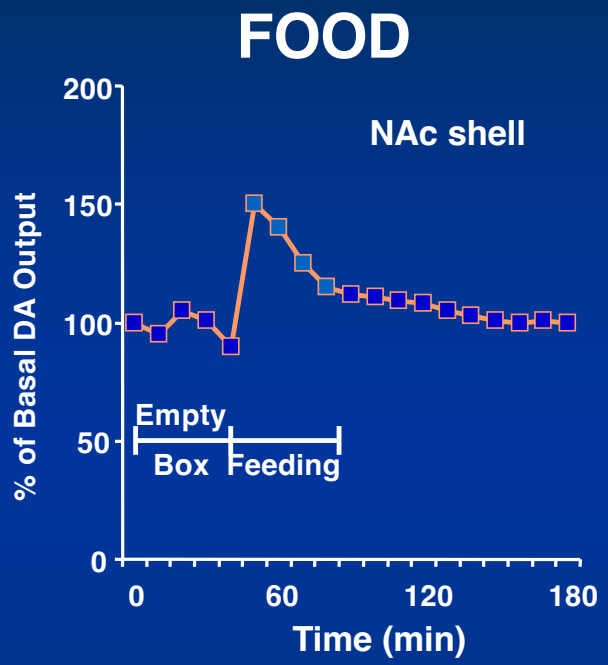
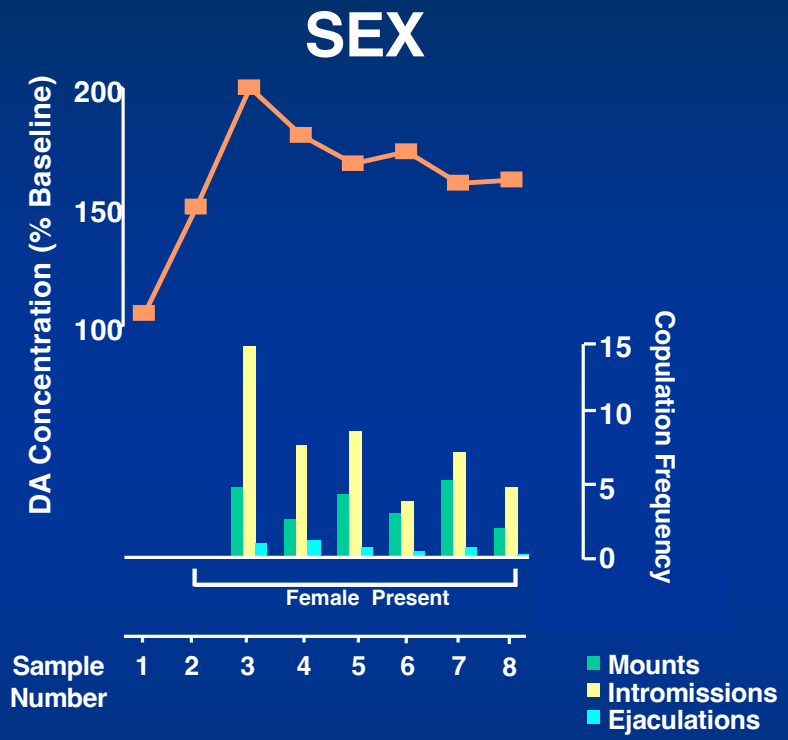
Dopamine and SUDS

- **One of the brain circuits that is activated by opioids is the mesolimbic (midbrain) reward system.**
- **This system generates signals in a part of the brain called the ventral tegmental area (VTA) that result in the release of the chemical dopamine (DA) in another part of the brain, the nucleus accumbens (NAc).**
- **This release of DA into the NAc causes feelings of pleasure.**
- **Other areas of the brain create a lasting record or memory that associates these good feelings with the circumstances and environment in which they occur.**
- **These memories, called conditioned associations, often lead to the craving for drugs when the user reencounters those persons, places, or things, and they drive users to seek out more drugs in spite of many obstacles.[7]**



Natural Rewards Elevate Dopamine Levels

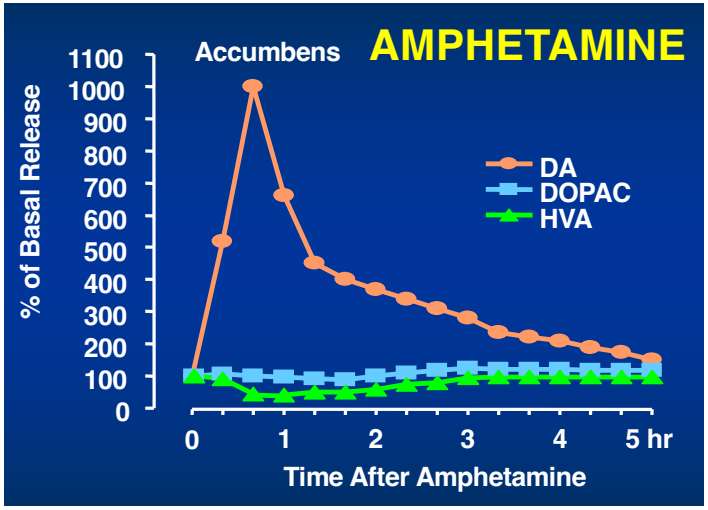


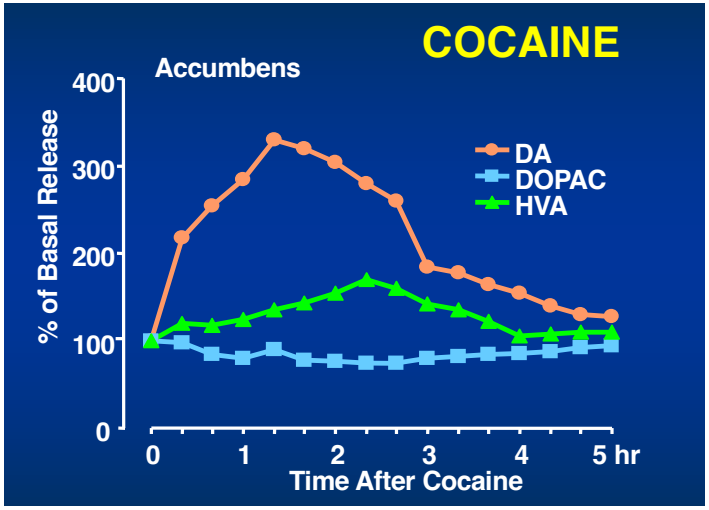


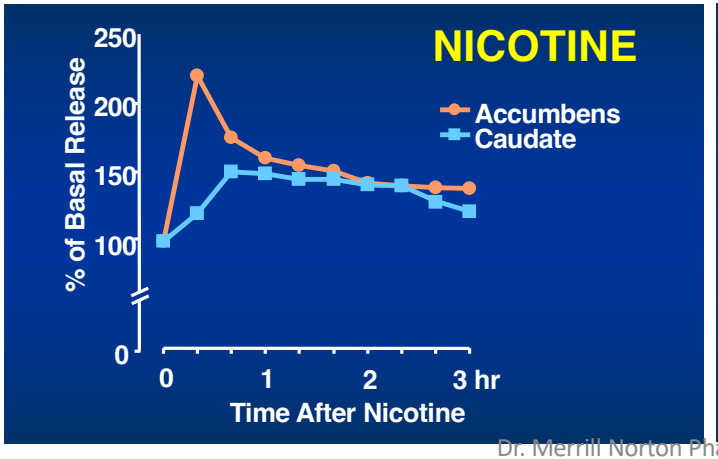
Di Chiara et al., Neuroscience, 1999.

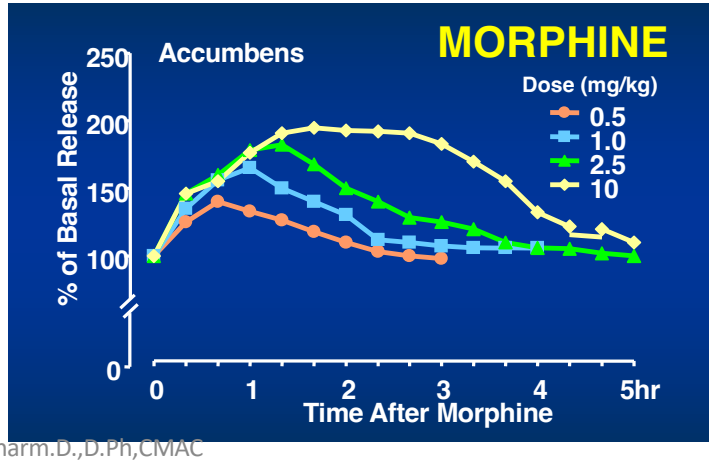
Fiorino and Phillips, J. Neuroscience, 1997.

Effects of Drugs on Dopamine Release



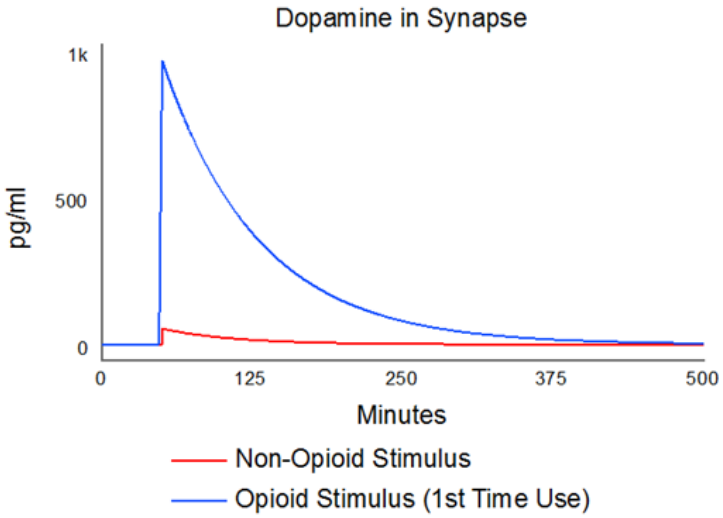






Di Chiara and Imperato, PNAS, 1988

Dopamine/Endorphin Model



- **Life affirming activities produce a small spike of dopamine**
  - **~50% increase with eating**
  - **~100% increase with sex**
- **Dopamine levels between 50-100 pg/mL at baseline**
- **Substances spike this dopamine level**
  - **Morphine ~300% increase**
    - **Heroin ~1,000% increase**
  - **Methamphetamine ~900-1,000% increase**

Volkow, N.D., G.-J. Wang, J.S. Fowler, et al. 2011. Addiction: beyond dopamine reward circuitry.
*Proc. Natl. Acad. Sci. USA **108:** 15037–15042*

The Endorphins

- **Functions Of Endorphins**
- **Relieve pain.** Endorphins are most known for blocking or easing the intensity of pain and this is generally considered their primary function. Your body releases endorphins as an immediate response to a painful stimulus.[8]
- The pain-relieving effects of endorphins are relatively short-lived. However, they also trigger the release of other feel-good chemicals, such as dopamine, that have longer-lasting effects.
- **Regulate immune and inflammatory response.** Endorphins decrease inflammation and generally calm your immune system. This effect keeps you from experiencing intense reactions to everything that triggers your immune system.[8]
- **Reduce stress throughout the body.** Whenever your body is under stress, endorphins are released to calm things down and allow you to cope with the stress appropriately. This includes everything from lowering your body temperature to slowing your heart rate.[8]
- For example, if you participate in a relatively high-stress activity, such as sky-diving, you'll experience a spike in endorphins both before and after the activity. The endorphins counter the stress of your initial anticipation and then relieve the stress afterward.
- **Trigger the release of dopamine.** Endorphins are released more quickly than dopamine, while the activity is ongoing. The release of endorphins sends a signal to neurons to release that dopamine.[9]
- The effects of dopamine also tend to last longer than the effects of endorphins, which tend to taper off within a few minutes of their initial release.
- Opioid use triggers an excess release of dopamine, which is part of the reason opioids are so addictive.

Dynorphins: What makes mamas – mamas!!

- **Why do mothers love there babies so?**
- **They will die for them;**
- **They will tell you the birthing of their children is their greatest joy in life;**
- **And why do all of us have a “soft spot” for our mothers even when some of them were not the best of mothers!!!!**
- **The answer has been recently discovered: Dynorphins-the human bonding chemical found in mammalians**

What are Dynorphins ?

- **Opioid peptides**
- **Responsible for Oxytocin release**
- **Responsible for some anaglesia**
- **Addiction (lack of dynorphins)**
- **Depression moderation-decrease dynorphin causes increased depression and anxiety**
- **Stress reduction**
- **Human bonding**
- **Dysphoria of Withdrawal**

Oxytocin

- Oxytocin is known as the “love hormone” which has been described as the bonding chemical in intimate trusting relationships.
- Recent animal studies have also indicated that opioids and other psychoactive chemicals may cause an alteration of oxytocin and dopamine, which result in more severe physical withdrawal and isolation from significant relationships.
- Known interactions among the oxytocinergic, dopaminergic, and opioidergic systems in pair bond formation and maintenance.
- While several neuromodulatory systems have been implicated in pair bonding, interactions of the oxytocinergic system with reward modulatory systems, such as the dopaminergic and opioidergic systems, have been the most well-studied.
- What this new information may indicate is that opioids and other psychoactive substances alter the biochemical “relationship’ with others. It may cause the disconnection of intimate trusting relationships (Family, Friends, Church, etc.)

Oxytocin

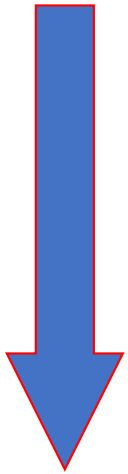
- The oxytocin-dynorphin axis theory may give insight to the separation of family members of a substance use disordered individual.
- A surge of oxytocin makes us feel more trusting and generous toward our social partners[13]. It encourages us to tend and befriend.
- It can help us relax together. Oxytocin counteracts the effects of stress, reducing blood pressure, anxiety, and fear.[14]
- Mothers who show high baseline levels of oxytocin tend to treat their babies with greater sensitivity and responsiveness[15].
- Oxytocin levels are reduced when dynorphin levels increase.[16]
- Dynorphin levels, which fluctuate daily and seasonally[16] are known to cause late-sleep onset and insomnia, whereas people who wake up well rested earlier are naturally higher in oxytocin.
- What this means is that as the levels of dopamine, oxytocin, and endorphins decrease, the levels of dynorphins increase causing severe dysphoria and withdrawal in the individual.
- Dr. Koob has identified these biological changes in the brain as the Anti-Reward Brain.

"Human Doing"

"Human Being"

Neurotransmitters of SUDS/Trauma

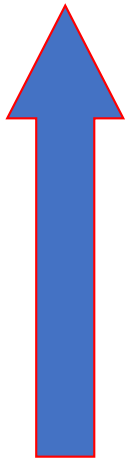
SUDS/Trauma



Depletion may take less than 12 months- Trauma may take just seconds to shut down these neurochemical systems

PIP/Dynorphins
Oxytocin
Dopamine
Glutamate
Acetylcholine
Anandamide
Endorphins / Enkelphins
Histamine
GABA
Serotonin
Epinephrine / Norepinephrine

Recovery



Replenishment may take 5 to 7 years ?????

The Changing of the Brain's Communication Highway

1.) Alcohol, Marijuana, Rx opioid medications alter the receptors and neurotransmitters with any use; it happens like this:

2.) The person experiences euphoria from the release of dopamine (excessive amounts) when they drink or use a drug.

3.) The brain records this pleasurable experience in short term memory: "This was a good time" and due to the dopamine release creates a "liking" for the drug.

The Changing of the Brain's Communication Highway

4.) If the person begins to repeat the pleasurable experience because of the release of the endorphins which causing a "wanting" or preference for the drug.

With increased doses of the drug, the dopamine becomes depleted, then the brain attempts to stabilize the chemistry by increasing the oxytocin and endorphins, to reset the brain back to normal; but this attempt just creates a need for more of the drug-tolerance and withdrawal.

The Changing of the Brain's Communication Highway

5.) If the person continues to use (thinking that they can get back to normal), the brain activates a third set of chemicals, the dynorphins, to keep the brain's communication highway open. Oxytocin is also involved to keep the dynorphins in balance.

6.) Oxytocin is responsible for many things in the brain, one of the most important is stress reduction created by intimate relationships (family, friends, church, etc.)

A long-term memory system is activated. The dynorphins are the opposite to oxytocin, creating tremendous dysphoria and decreased connection to intimate relationships.

The Changing of the Brain's Communication Highway

7. As the person continues to use the drug, oxytocin continues to be depleted over time, making normal relationships less important.

8. As the depletion of the oxytocin and the dynorphins increase continues, the brain will begin to substitute the drug of abuse for the brain's natural oxytocin.

9.) The brain becomes "hijacked" using the drug of abuse as the primary relationship of importance, instead of the normal relationships in the person's life. This is a substance use disorder.

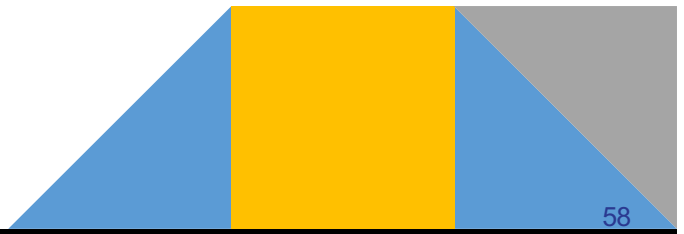
10.) Once the hijacking occurs-it is irreversible-substance use disorders are a chronic disease process. This is called the Anti-Reward Brain.

The Anti-Reward Brain

- **1. A key element of addiction is the development of a negative emotional state during drug abstinence.**
- **2. The neurobiological basis of the negative emotional state derives from two sources: decreased reward circuitry function and increased anti-reward circuitry function.**
- **3. The anti-reward circuitry function recruited during the addiction process can be localized to connections of the extended amygdala in the basal forebrain.**
- **4. Neurochemical elements in the antireward system of the extended amygdala have as a focal point the extrahypothalamic corticotropin-releasing factor system.**
- **5. Other neurotransmitter systems implicated in the anti-reward response include norepinephrine, dynorphin, neuropeptide Y, and nociceptin.**
- **6. Vulnerability to addiction involves multiple targets in both the reward and anti-reward system, but a common element is sensitization of brain stress systems.**
- **7. Dysregulation of the brain reward system and recruitment of the brain anti-reward system are hypothesized to produce an allostatic emotional change that can lead to pathology.**
- **8. Nondrug addictions may be hypothesized to activate similar allostatic mechanisms.**

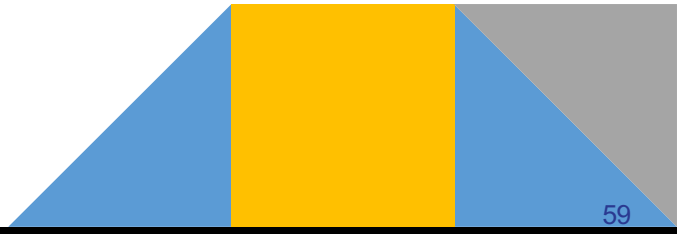
Recovery Mechanisms Can Reverse the Depletion-A Day At A Time

- **To recover from this biological hijacking of the drugs of choice, the brain must reestablish a human dynorphin experience, thus the beginning the recovery process.**
- **To establish the recovery process (Dynorphin re-establishment), human relationships are essential;**
- **The Fabulous Five elements of establishing these human recovery relationships are;**
- **DO NOT DRINK OR USE;**
- **FIND AND CALL A SPONSOR;**

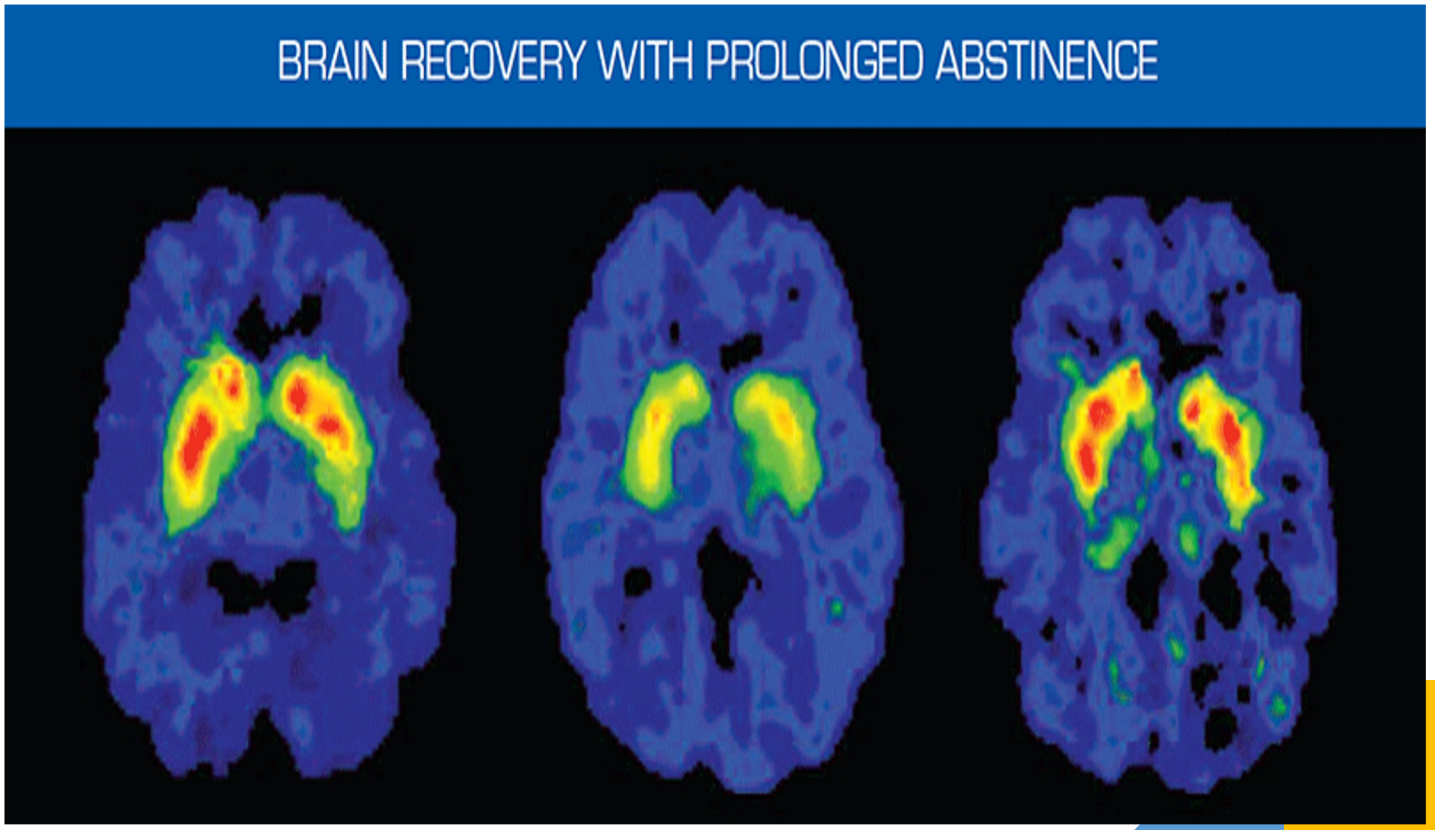


Recovery Mechanisms Can Reverse the Depletion-A Day At A Time

- **FIND AND GO TO A MEETING;**
- **WORK THE STEPS OR SIMILAR SPIRITUAL PROGRAM;**
- **REPEAT DAILY**
- **If a person follows the Fabulous Five Essentials of Recovery, the dynorphins and oxytocin begin to be restored and as long as the process is in place-relapse and cravings are avoided. Stop the process, the dynorphins and oxytocin are depleted and relapse and cravings return.**



Addiction is Treatable!

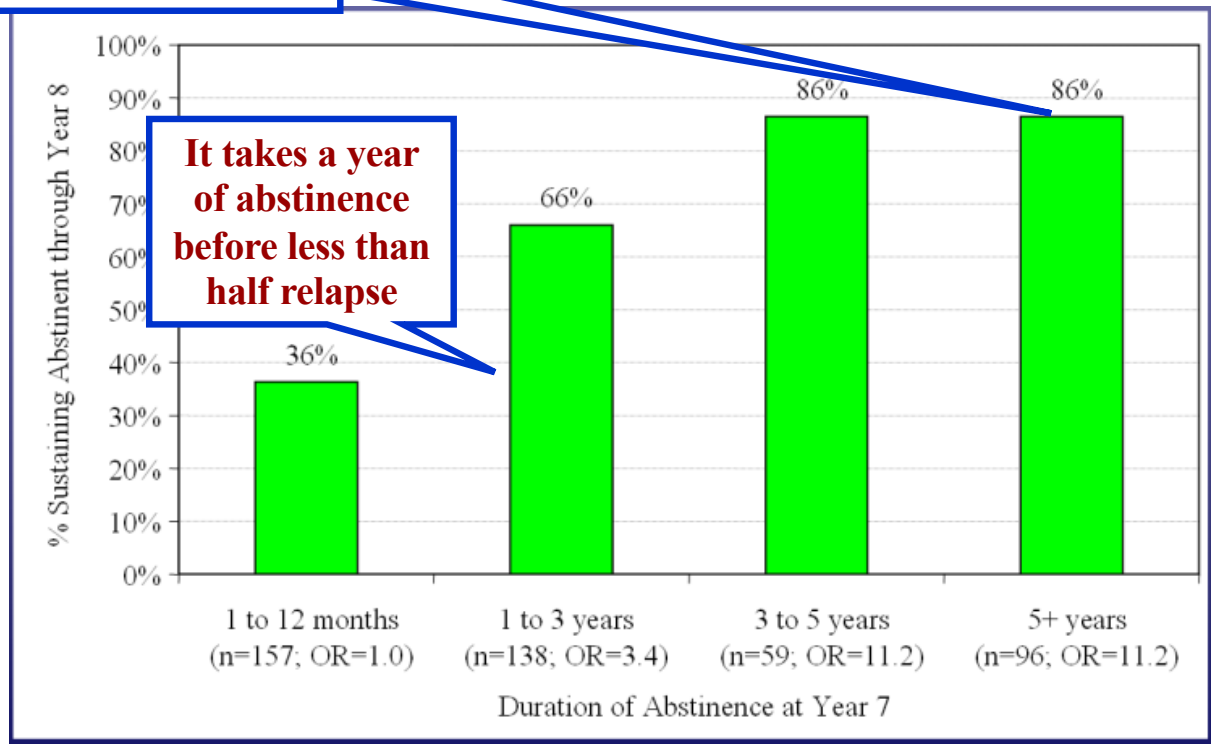


Normal Brain 1 month of abstinence 14 months abstinence

Extended Abstinence is Predictive of Sustained Recovery

After 5 years – if you are sober, you probably will stay that way.

It takes a year of abstinence before less than half relapse



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Thank You For Your Time

Any Questions?