

Addiction and Trauma

Addiction and Trauma

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Addiction and Trauma

Objectives

At the completion of this session, participants will be able to:

1. identify the biology of addiction and trauma
2. categorize clinical symptoms of addiction and trauma
3. specify models for treating addiction and trauma

Addiction and Trauma

Definitions:

Addiction: characterized by frequent use of a substance/process (usually daily) and by the fact that a great deal of the individual's behavior is focused on using the object of their addiction, obtaining the object, and talking about the object or paraphernalia associated with the object's use.

(Harvard Medical School)

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Definitions

Trauma:

- a. an experience that produces psychological injury or pain; the psychological injury so caused

- b. an emotional wound or shock that creates substantial, lasting damage to the psychological development of person.

(Shapiro, 2010).

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A. Statistics :

PTSD: 8% of the general population; similar to general substance using individuals

(Peirce et al, 2008)

22-43% of people living with PTSD have a lifetime prevalence rate of substance use disorders and the rate for veterans is as high as 75% (Jacobsen, Southwick, & Kosten, 2001).

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A. Statistics :

Diagnosis of PTSD in substance-dependent patients is strongly associated with a history of mood and other psychiatric disorders and a more severe lifetime history of substance use across drug classes.

The co-occurrence of PTSD in patients with substance use disorder has not been associated with the current severity of substance use problems, despite a clear pattern of more severe current psychiatric, medical, social, and employment problems.

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A. Statistics

Substance Abuse and Traumatic Life Events:

Over two-thirds of people seeking treatment for substance use disorder report one or more traumatic life events (Back et al., 2000)

Rates of witnessing serious injury or death of others and experiencing physical assault are two to three times higher in substance-using individuals than in the general population (Cottler et al., 2001; Kessler et al., 1995).

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Statistics:

Among men with PTSD, alcohol abuse or dependence is the most common co-occurring disorder, followed by depression, other anxiety disorders, conduct disorder, and non-alcohol substance abuse or dependence.

Among women with PTSD, rates of comorbid depression and other anxiety disorders are highest, followed by alcohol abuse and dependence.

(Jacobsen, Southwick, & Kosten, 2001).

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A. Statistics

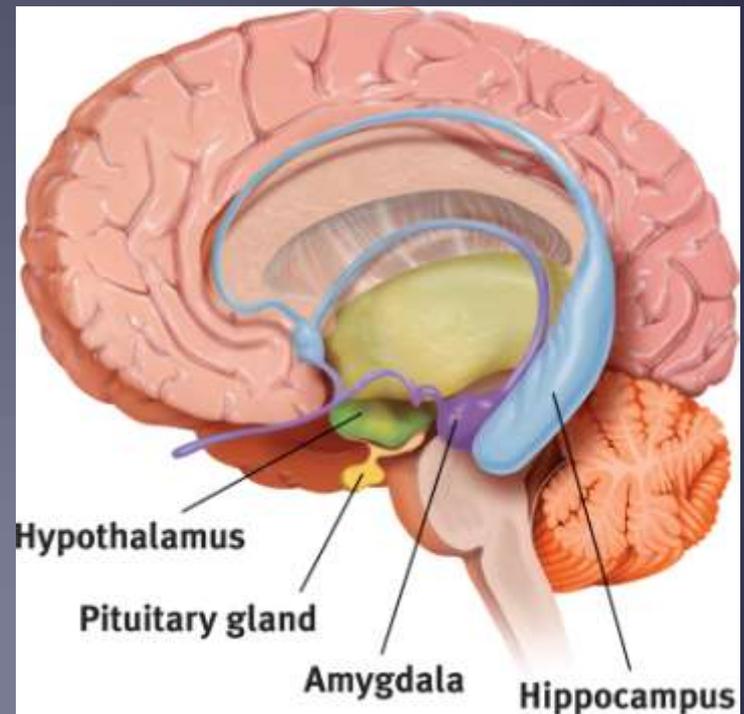
Literature indicates the complex nature of treating patients with co-morbid PTSD and substance abuse. These clients often have greater difficulty maintaining sobriety as well as increased difficulty in the healing of traumatic memories.

(Ford, Hawke, Alessi, Ledgerwood & Petry, 2007; Peirce, Kindbom, Waesche, Yuscavage, & Brooner, 2008; Schumacher, Coffey & Stasiewicz, 2006)

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B. Biology of Addiction and Trauma: Important Structures

The **Limbic System** is a doughnut-shaped system of neural structures at the border of the brainstem and cerebrum, associated with emotions such as fear, aggression and drives for food and sex. It includes the hippocampus, amygdala, and hypothalamus.

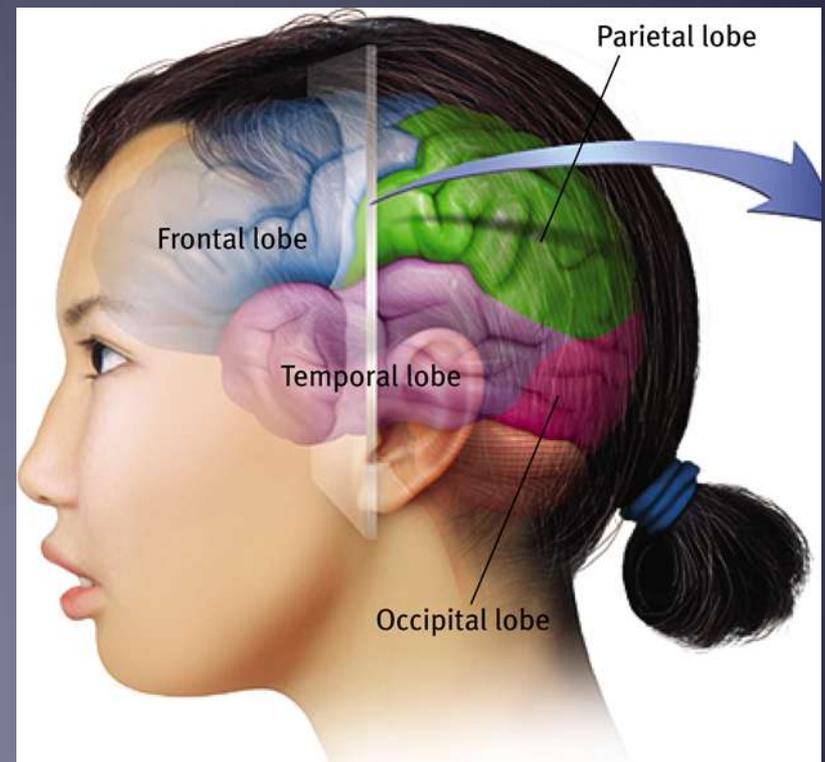


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B. Biology of Addiction and Trauma: Important Structures

Each brain hemisphere is divided into four lobes that are separated by prominent fissures.

These lobes are the **frontal lobe** (forehead), **parietal lobe** (top to rear head), **occipital lobe** (back head) and **temporal lobe** (side of head).



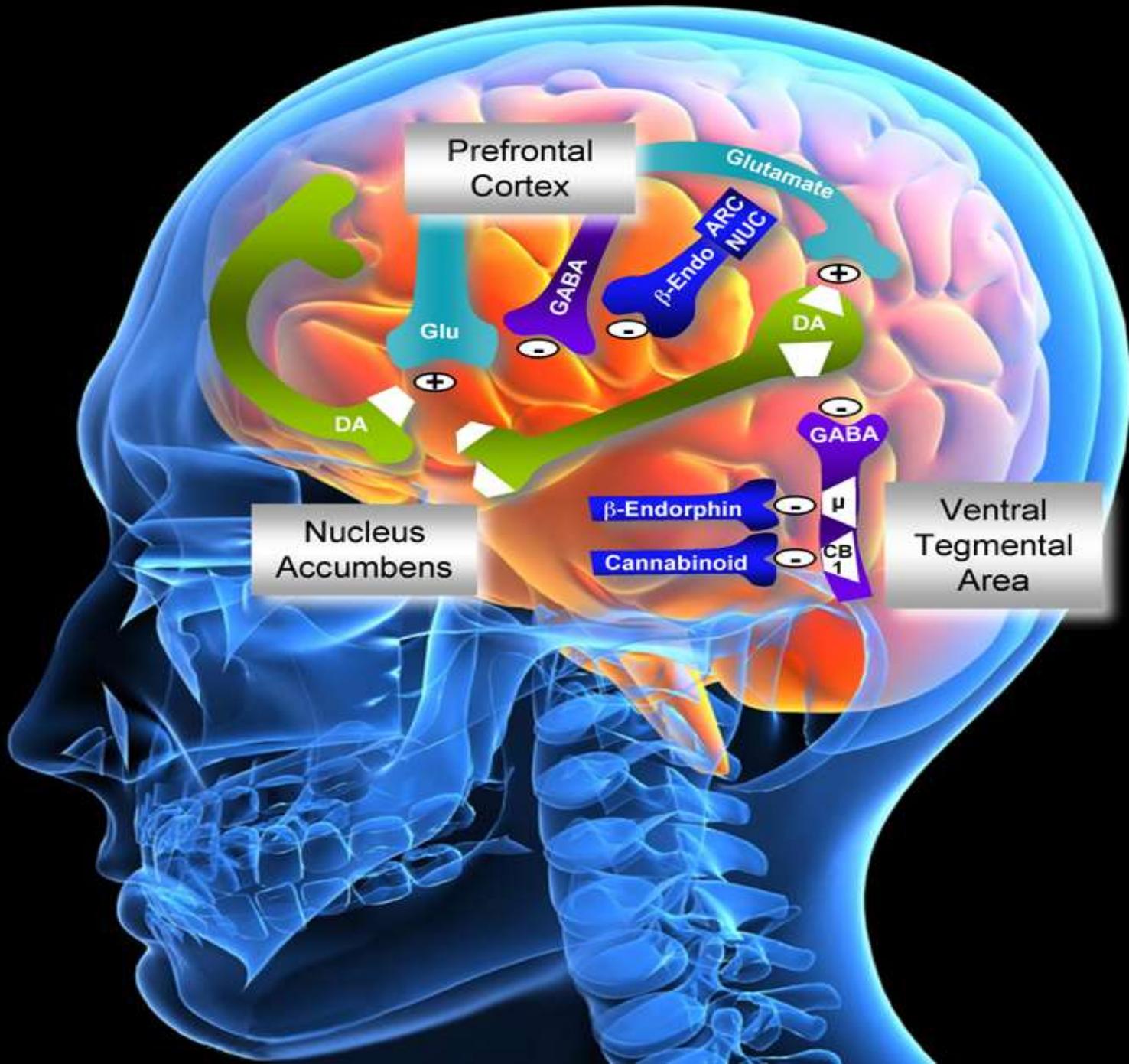
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B. Biology of Addiction and Trauma

Biology of Addiction

The Reward Pathway of the Brain (Both pleasure and satiation):

VTA (ventral tegmental area-midbrain)) to Nucleus Accumbens (forebrain, area in the basal ganglia)) to Prefrontal Cortex. (cortex- consciousness and planning) and to the limbic system (emotions).



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B. Biology of Addiction and Trauma

Biology of Addiction

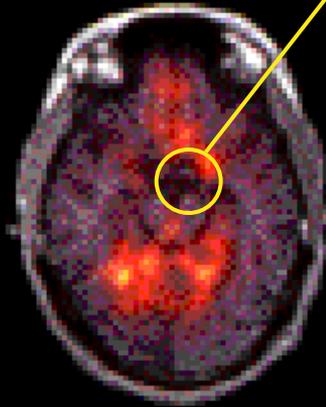
nucleus accumbens: creates a signal in the brain (initially) of good results from use. This is the pleasure center.

Locus ceruleus- area of the brain that coordinates the body's response to novel external stimuli and internal stimuli that might signal danger (responds to blood loss, hypoxia and pain).

The Memory of Drugs

Front of Brain

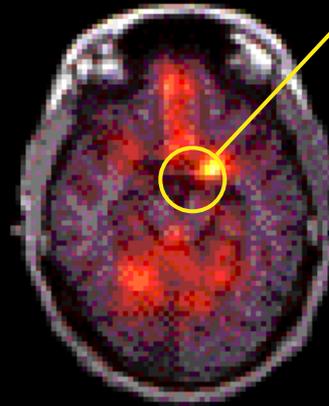
Amygdala
not lit up



Back of Brain

Nature Video

Amygdala
activated



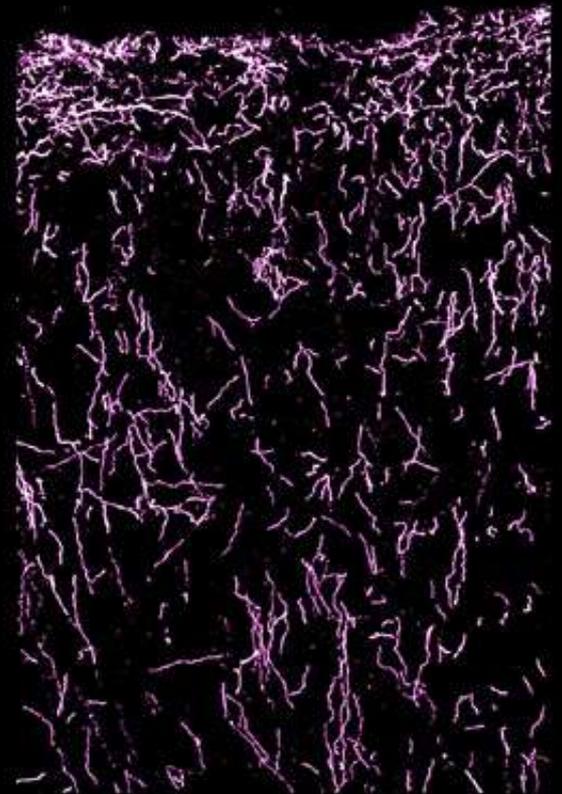
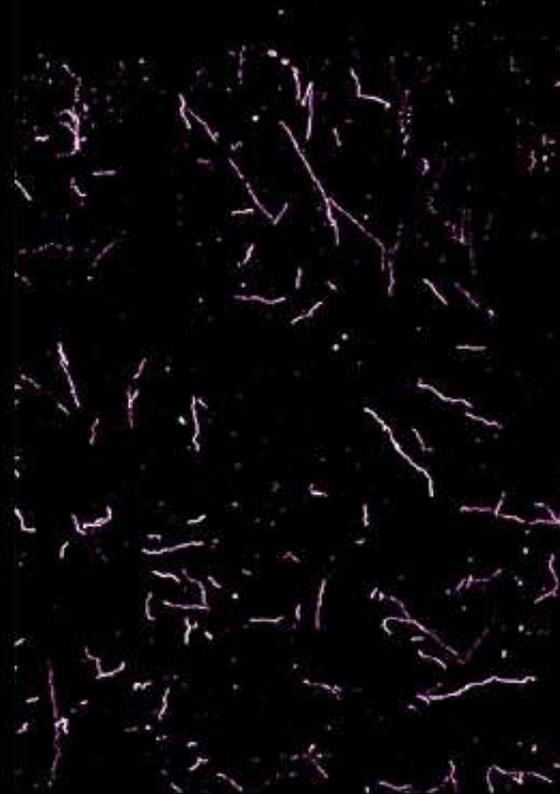
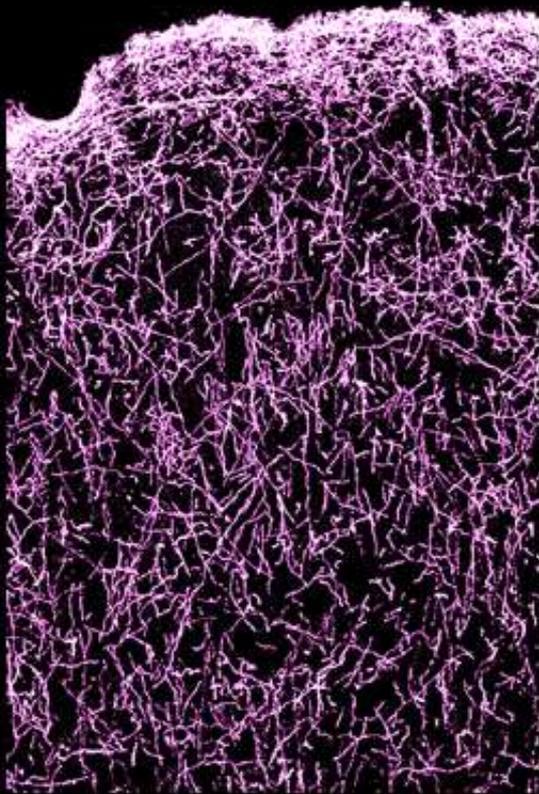
Cocaine Video

Serotonin Present in Cerebral Cortex Neurons

Control

2 weeks after Ecstasy

7 years after Ecstasy

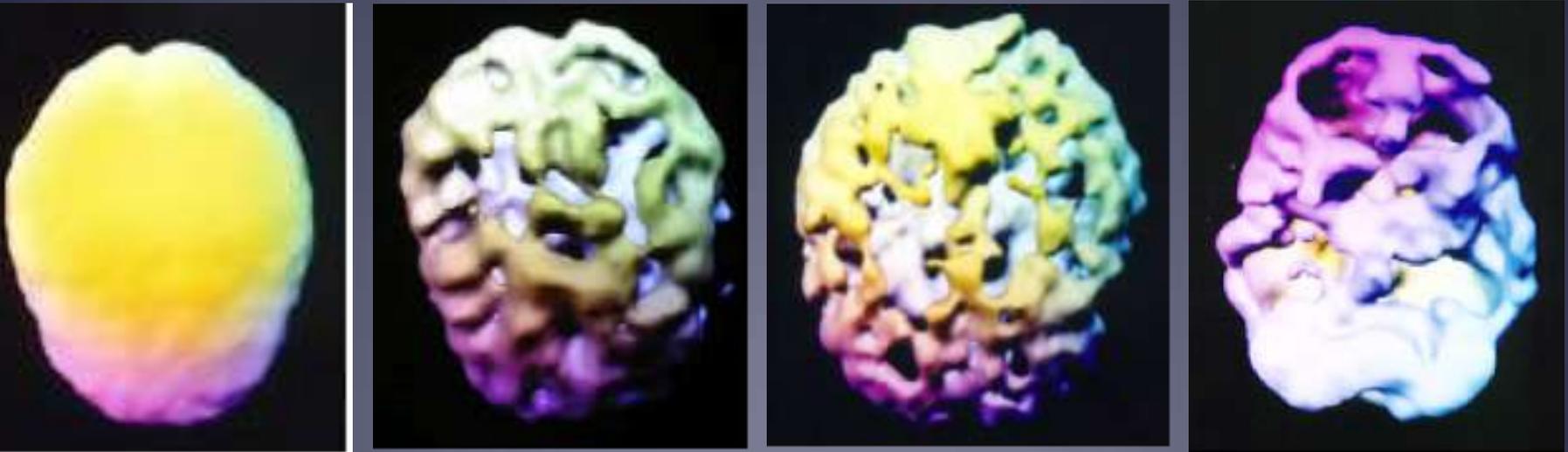


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B. Biology of Addiction and Trauma

Biology of Addiction

<http://www.amenclinics.com/brain-science/spect-image-gallery/>



Addiction and Trauma

B. Biology of Addiction and Trauma: Addiction

<http://www.amenclinics.com/brain-science/spect-image-gallery/>



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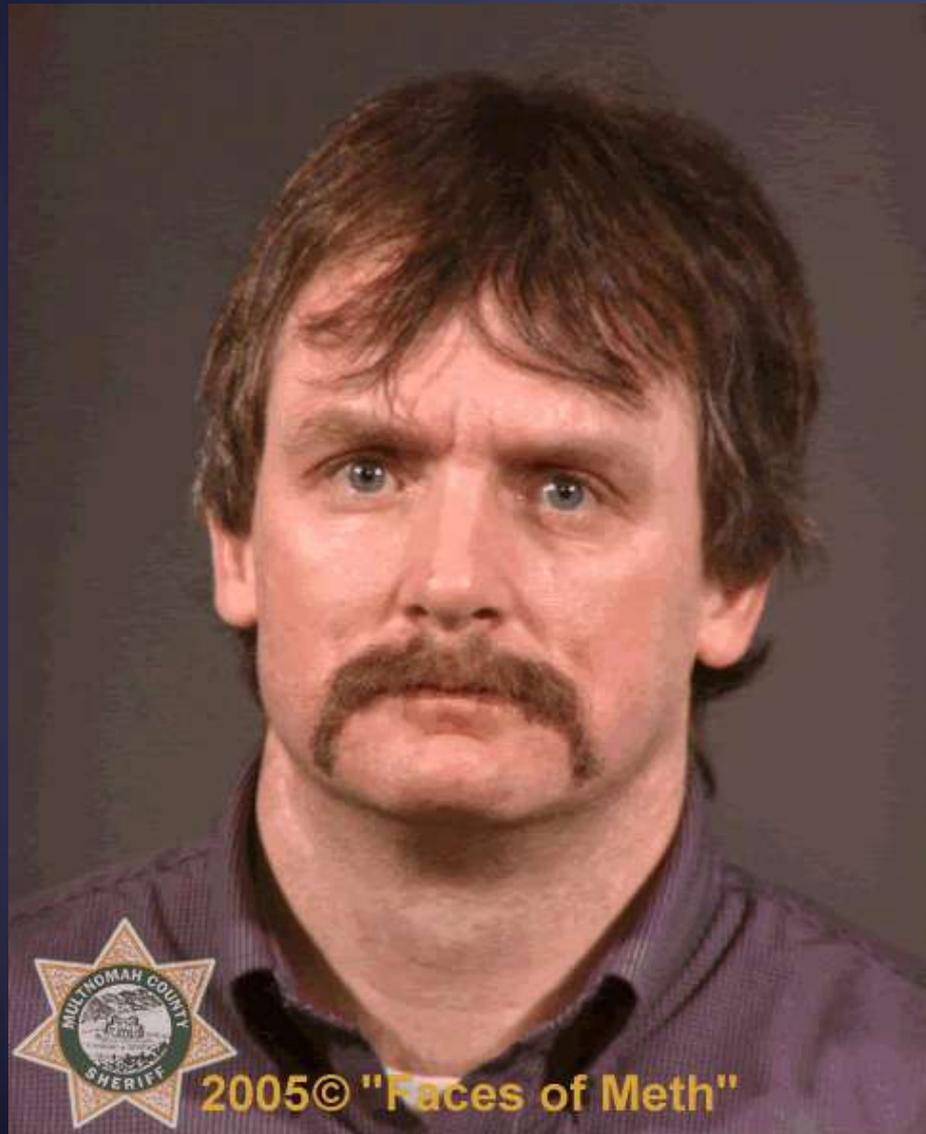
B. Biology of Addiction and Trauma

Biology of Addiction

Faces of methamphetamine use

www.facesofmeth.us

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2005© "Faces of Meth"



3 months later

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B. Biology of Addiction and Trauma

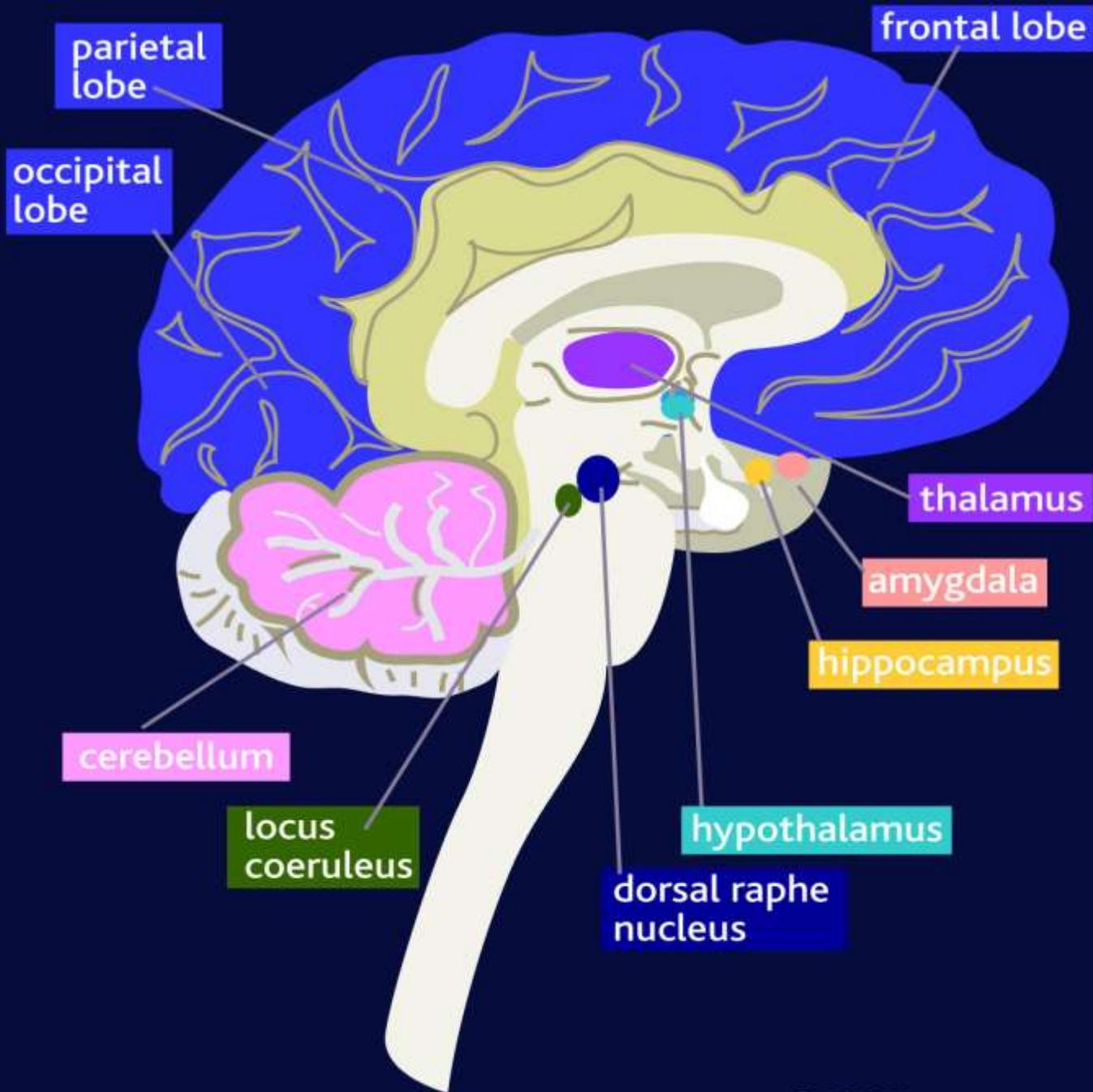
Biology of PTSD

Neuronal Response

Limbic System:

Amygdala- emotion and survival

Hippocampus- storage of memories



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B. Biology of Addiction and Trauma

Biology of PTSD

Hormonal Response

Adrenaline and Noradrenaline (epinephrine and norepinephrine hormones and neurotransmitters).

Cortisol (glucocorticoid, a hormone that affects the burning of sugar or glucose).

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B. Biology of Addiction and Trauma

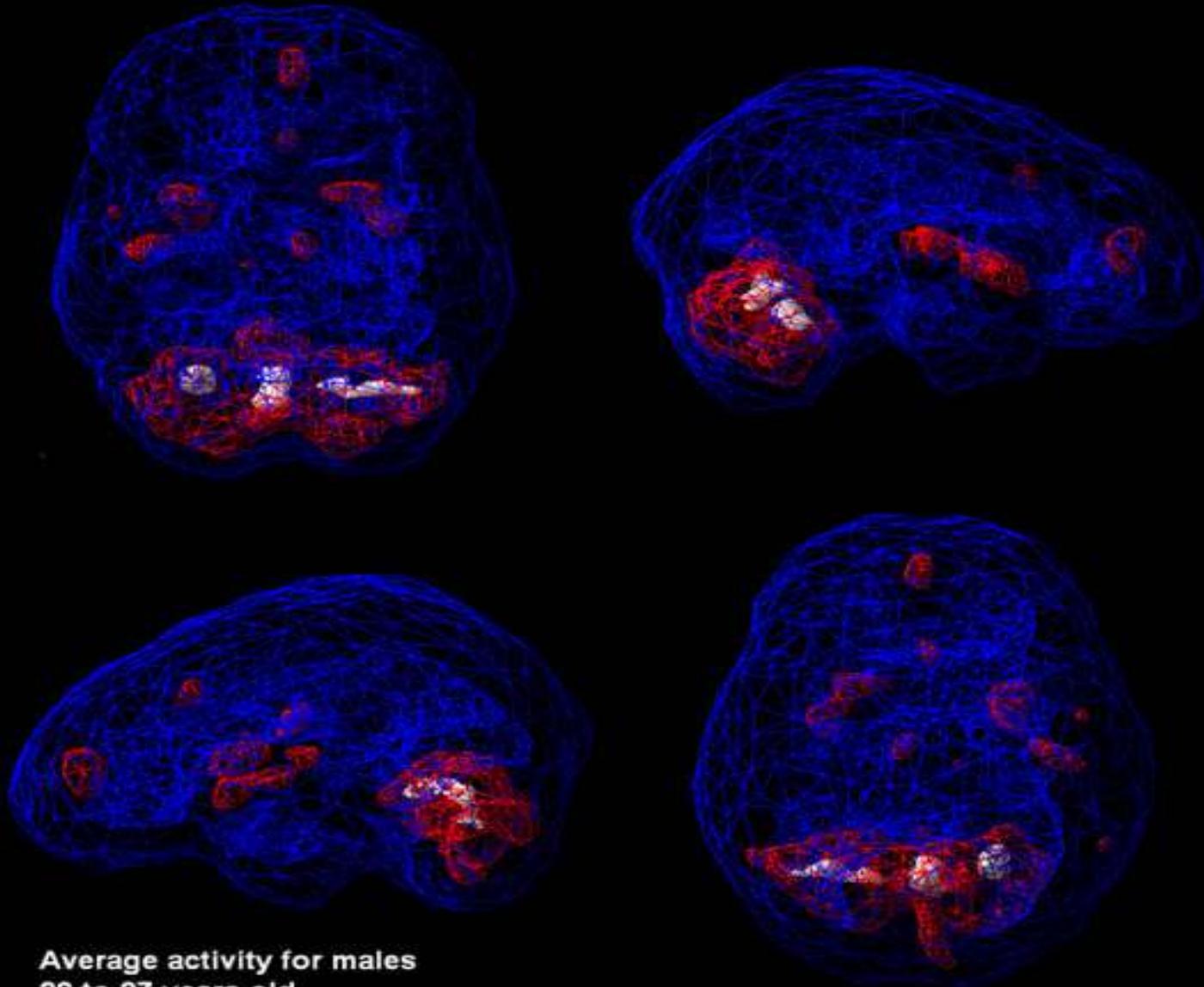
Biology of PTSD

Stress response: fight/flight/fear(freeze)

Stomach: during times of danger, the stomach produces extra serotonin

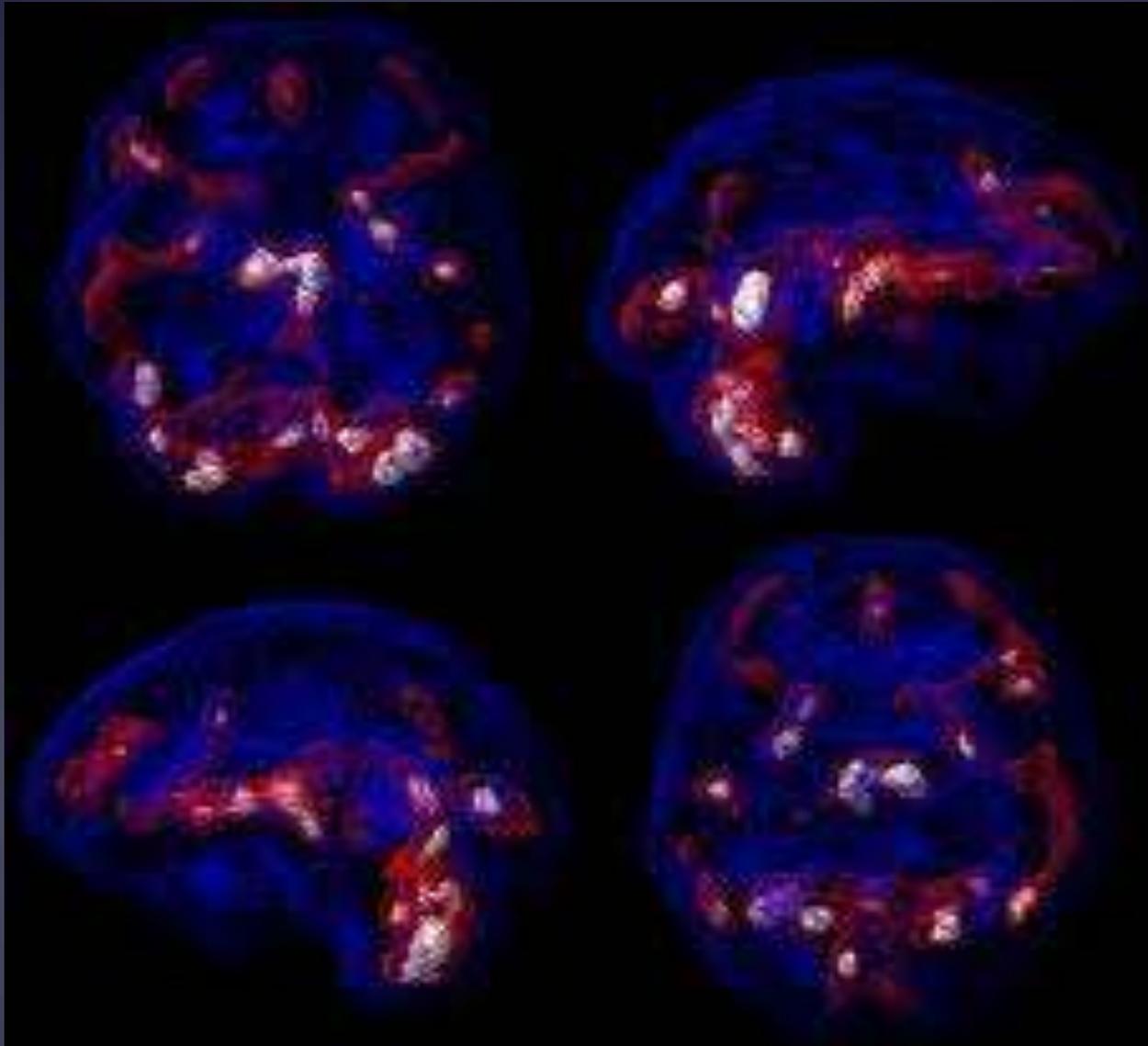
Glucocorticoids and neuropeptides affect the hypothalamus and hippocampus. The hippocampus interacts with the amygdala, the fear center.

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Average activity for males
22 to 27 years old

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C. Symptoms of Addiction and Trauma

Acute Stress Disorder/PTSD

*Cognitive Disturbance (low self-esteem; self-blame)

*Mood disorders (depression, anxiety)

Somatoform Disorders

Somatization

Conversion

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C. Symptoms of Addiction and Trauma

*Difficulties in affect regulation (anger, Borderline Personality Disorder)

*Identity disturbance (Borderline Personality Disorder)

*Chronic interpersonal difficulties (anger, Borderline Personality)

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C. Symptoms of Addiction and Trauma

Dissociation

Drug and Alcohol Abuse/Addiction

*Tension reduction activities (suicidality, self-mutilation, gambling, compulsive sexual behavior)

*Medical Sequelae of Trauma

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C. Symptoms of Addiction and Trauma

Dissociation:

Theory of Structural dissociation (van der Hart, Nijenhuis and Steele, 2006) is a versatile model to understand and treat the effects of trauma. The model explains the range of dissociative symptoms from PTSD to DID.

ANP- Apparently Normal Part

EP- Emotional Part

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C. Symptoms of Addiction and Trauma

Dissociation:

Theory of Structural dissociation

Primary: ANP and EP

Simple PTSD

Secondary: ANP and two or more EP's
(DESNOS: Complex PTSD)

Tertiary: Two or more ANP's and two or more EP's
(Dissociative Identity Disorder)

(van der Hart, Nijenhuis and Steele, 2006)

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C. Symptoms of Addiction and Trauma

Symptoms of dissociation:

Depersonalization

Derealization

Fugue states

Cognitive-emotional disengagement

Amnesia or missing time

Identity alteration

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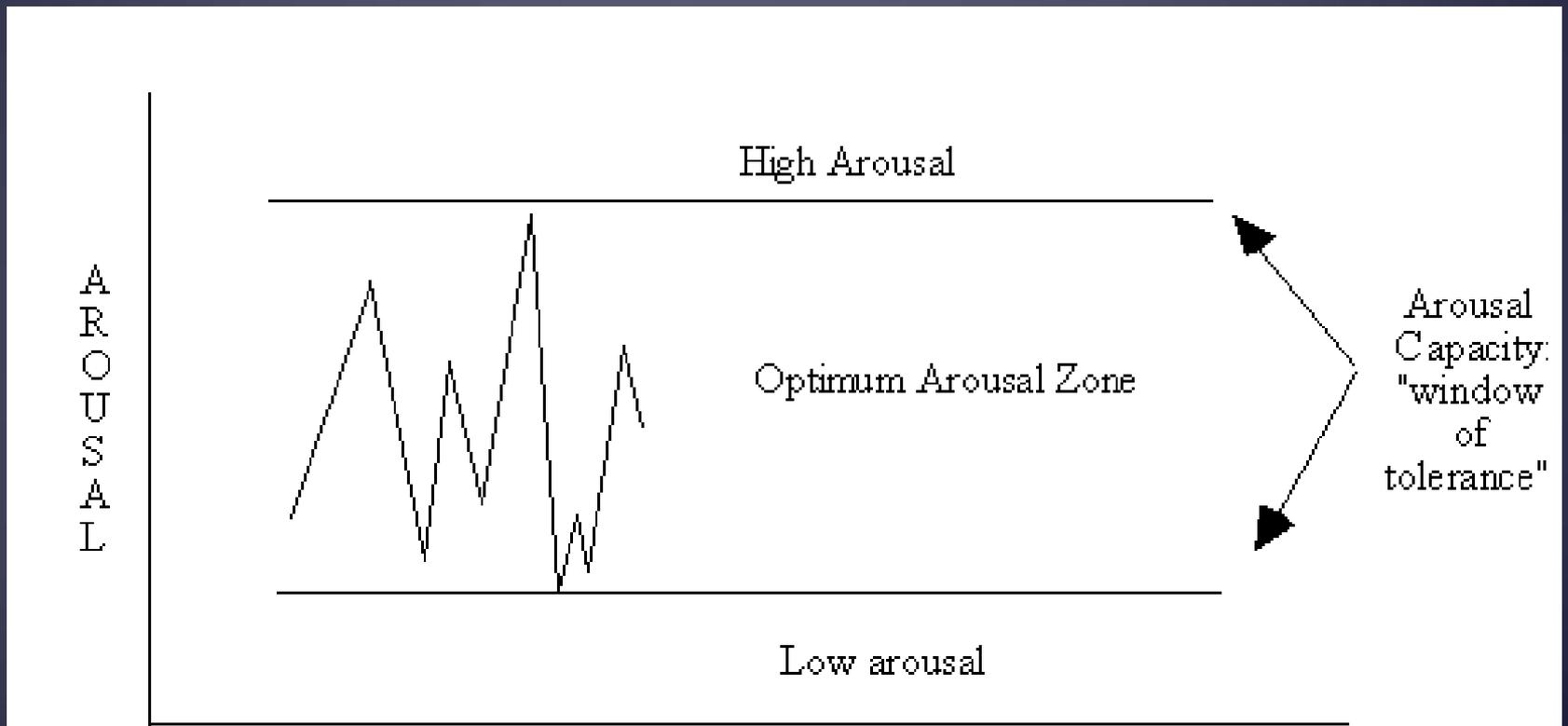
D. Models of treating addiction and trauma

Window of tolerance: the optimal arousal zone from which people experience various intensities of emotional and physiological arousal without disrupting the functioning of the system.” (Shapiro, 2010).

Addiction and Trauma

D. Models of treating addiction and trauma

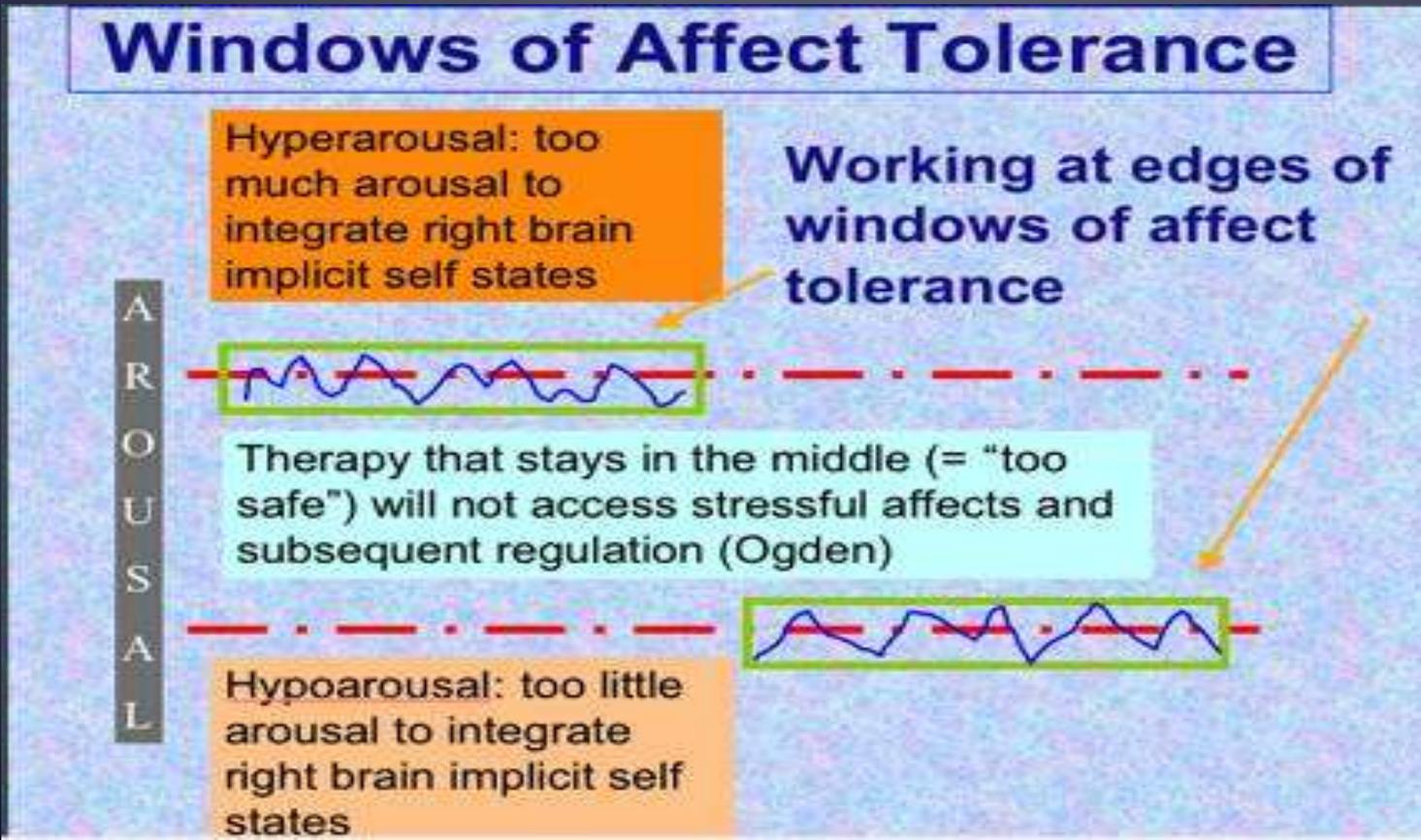
Window of tolerance



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D. Models of treating addiction and trauma

Window of tolerance



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D. Models of treating addiction and trauma

5 Common themes that are seen in models of trauma treatment

1. Presence-
2. Dual Attention-
3. Affect while in relationship-
4. Relationship with self and others-
5. Making meaning of the traumatic events-

(Shapiro, 2010)

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D. Models of treating addiction and trauma

a. Treatment models: Medical/Biological model:

Medications for trauma/PTSD

SSRI's

Other agents not primarily SSRI's

Benzodiazepines

Mood stabilizers

Tricyclic antidepressants

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D. Models of treating addiction and trauma

a. Treatment models: Medical/Biological model:

Medications for addiction to support sobriety

Agonists/antagonists

Alcohol

Nicotine

Opiates

Eating disorders/behavioral addictions

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D. Models of treating addiction and trauma

a. Treatment models: Medical/Biological model:

Holistic approaches:

Herbal

Acupuncture

Massage

Hypnosis

Biofeedback

Exercise

Pet therapy

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D. Models of treating addiction and trauma

b. Treatment Models: Psychological

Assess dissociation and PTSD

Dissociative Experiences Scale (Carlson & Putnam, 1992)

PTSD Checklist-Civilian Version

(Weathers, Litz, Huska, & Keane, 1994)

vs

Blackouts

En Bloc

Fragmentary

Addiction and Trauma

D. Models of treating addiction and trauma

b. Treatment Models: Psychological

Judith Herman (1997) Trauma and Recovery

Phase One/Safety:

Phase Two/Remembrance and Mourning

Phase Three/Reconnection

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D. Models of treating addiction and trauma

b. Treatment Models: Psychological

Phase One- Safety: Increasing the Window of Tolerance

Mindfulness (Siegel, 2007)

Seeking Safety- Najavits (2002)

DBT-S- (Linehan et al, 2002)

Pre-EMDR- (Korn & Leeds, 2002 ; York & Leeds, 2001)

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D. Models of treating addiction and trauma

b. Treatment Models: Psychological

Phase Two- Remembrance and Mourning: Working within the Window of Tolerance

Prolonged Exposure (Foa, Hembree & Rothbaum 2007).

Cognitive Processing (Resick & Schnicke, 1992)

ACT (Hayes, Strosahl, & Wilson, 1999)

Internal Family Systems (Forgash & Copeley, 2008)

Sensorimotor psychotherapy (Ogden, Minton & Pain, 2006)

EMDR (Abel & O'Brien, 2010; Shapiro, Vogelmann-Sine & Sine, 1994)

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E. How to decide if and when to transition to Phase 2 trauma treatment.

(O'Brien & Abel, in press)

Things to consider:

1. Person's addiction history
2. What happens when the person tries to quit?
3. What internal/external resources does the person have?
4. Does the client have a single/complex trauma history?
5. What is the client's functional level?

Addiction and Trauma

E. How to decide if and when to transition to Phase 2 trauma treatment.

Things to consider:

6. What is the client's current stress level?
7. Affect tolerance.
8. Client motivation.
9. Does the client need detoxification?
10. Quality of the therapeutic relationship

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Questions and Wrap-up