



# MOTHER-INFANT DYAD

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# Mother-Infant Dyad

- What soothes baby (and Mom):

## Attachment

- Skin-to-skin contact
- Breastfeeding
- Contact with parents
- Rooming-In

Infants with  
NAS:

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Rooming- in decreases  
morphine by 50%

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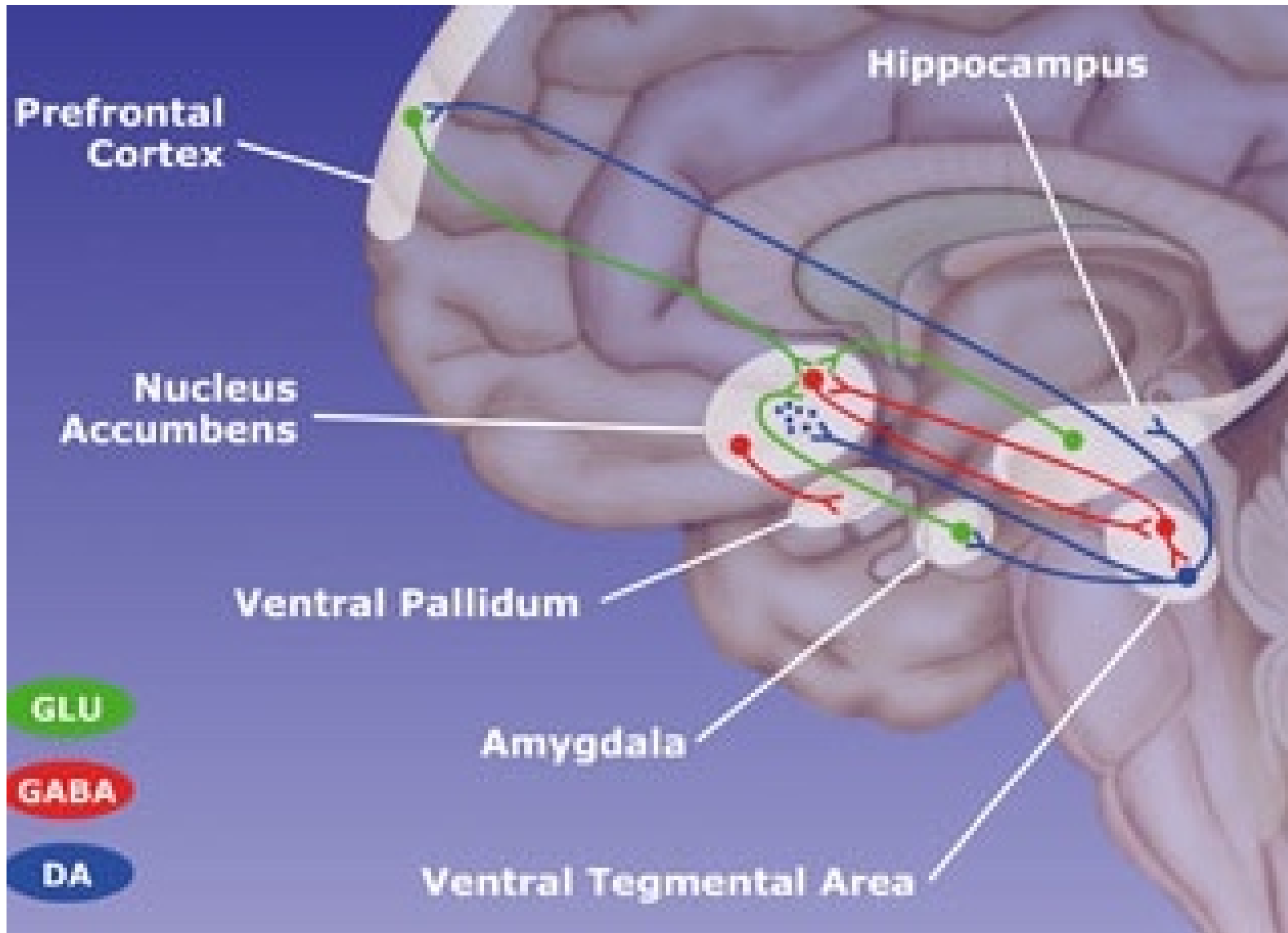
Rooming- in decreases  
length of stay by 50%

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Skin-to-skin contact is  
of primary importance!



HOW DOES THIS  
HAPPEN?



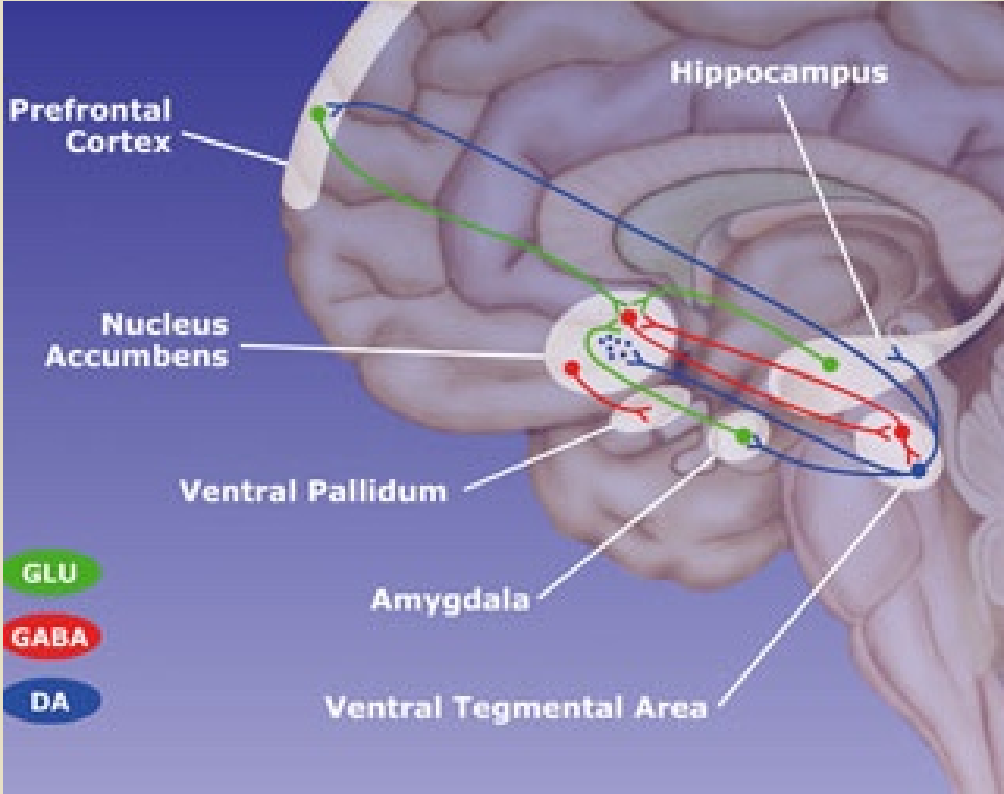
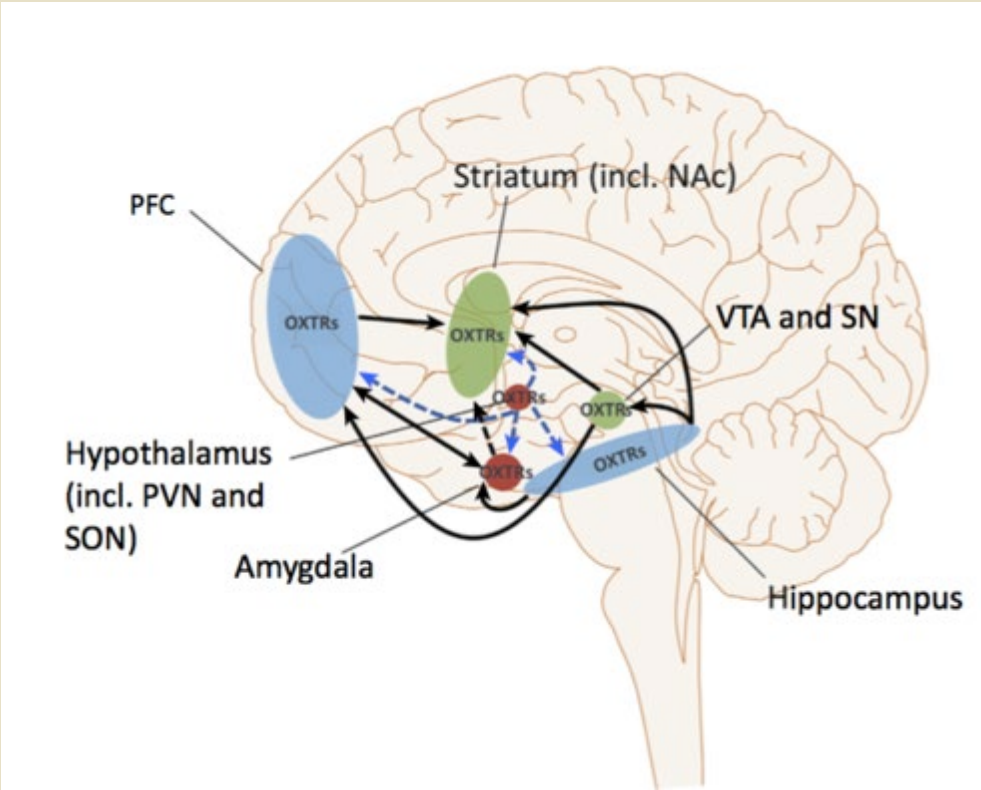
## Neurodevelopment

- Cortisol
- Oxytocin

# Oxytocin: The Attachment Hormone

- **Oxytocin:**
  - Decreases cortisol
  - Decreases neurotoxicity to developing brain regions
  - Eases sympathetic nervous system
  - Regulates immune system
  - Allows parent to soothe infant
  - Decreases drug use and cravings in mammals

# Oxytocin Receptors and Addiction



# Addiction in Pregnancy: An intergenerational story

- Attachment Insecurity (ages 0-2)
- Adverse Childhood Experiences (ages 0-18)





# Adverse Childhood Experiences:

Approximately 45% of women with SUD have a history of sexual abuse.

# Adverse Childhood Experiences

- History of **verbal, physical, and sexual abuse** increase likelihood of:
  - Smoking
  - EtOH use
  - Illicit drug use
- Increasing number of ACE events:
  - Substance use begins at an earlier age
  - Consequences are worse (psychosis, homelessness, etc.)

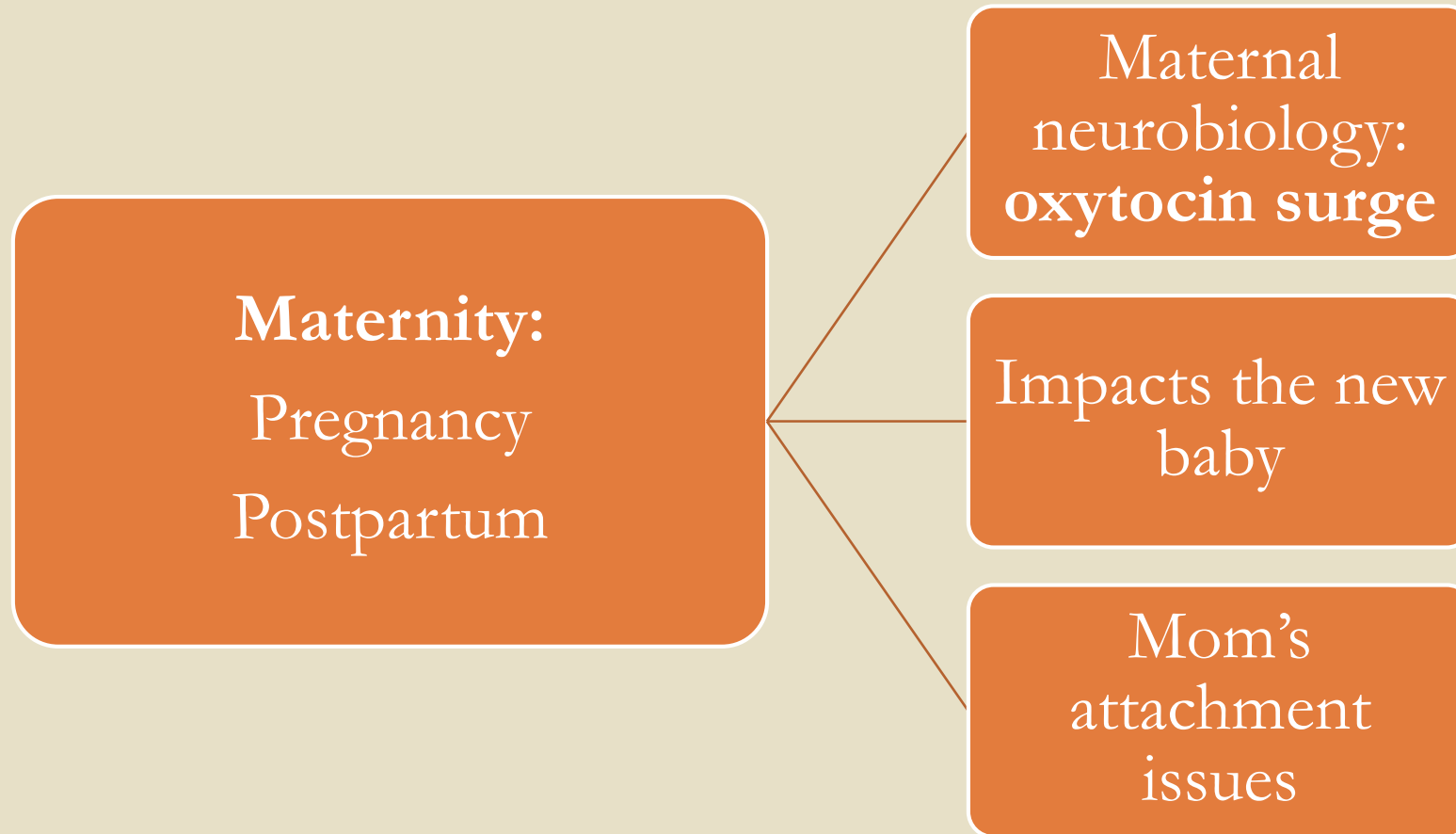
Lower in women  
with a history of  
child abuse

Lower in mothers  
with insecure  
attachment

Lower in chronic  
opioid use

**Oxytocin**

# When to Intervene:



“It is difficult to show love when *you* were never shown love as a child.”

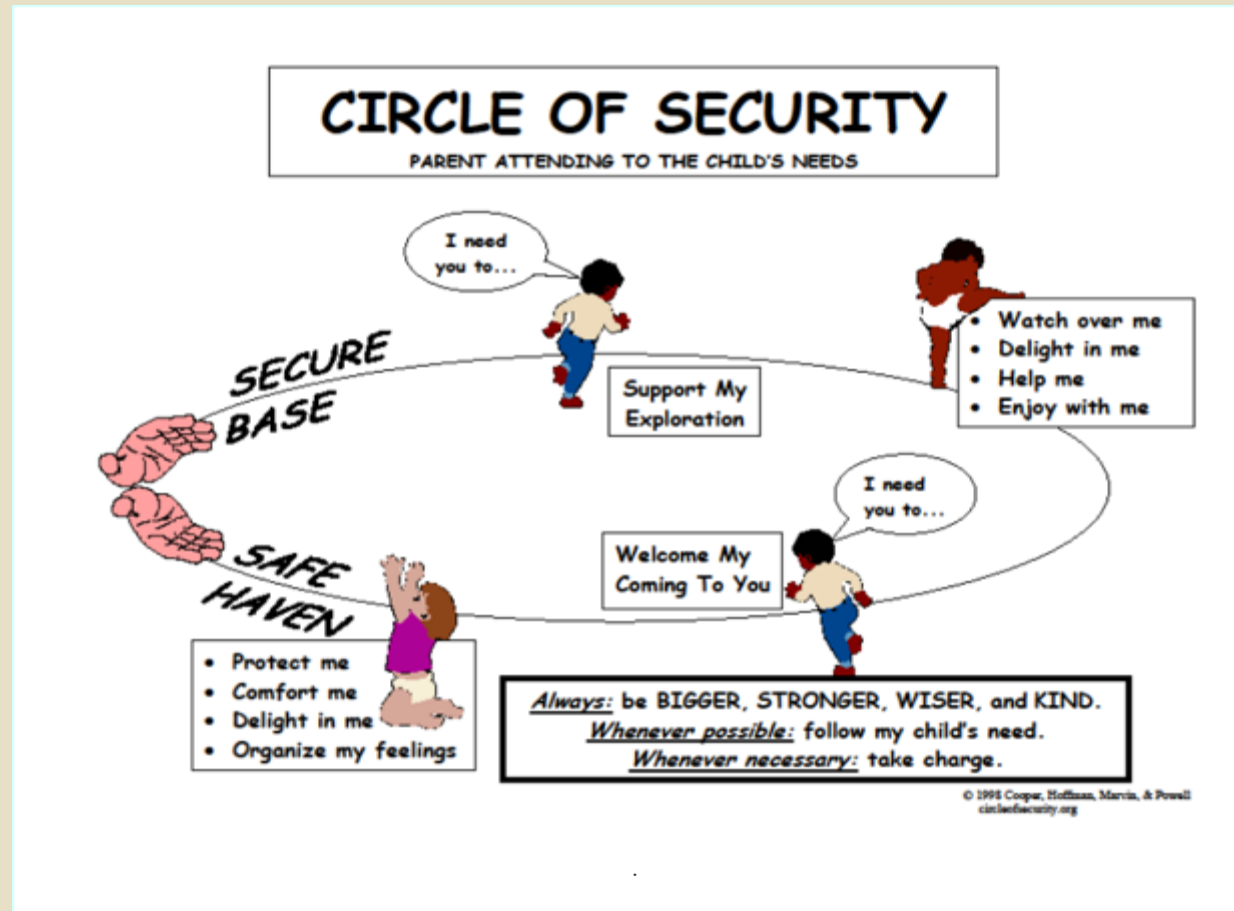
-Postpartum Mother with Opioid Use Disorder

# Treatment of mother and baby: Integration is key!



- Attachment therapy:
  - Enhance mother-infant attachment
  - Enhance attachment of mother to therapist
  - Enhance neurodevelopment of infant
  - Redirect reward system toward attachment (rather than drug)

# Circle of Security: Attachment Therapy



# Summary

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Mothers with substance use disorders are more likely to have a history of child abuse and insecure attachment.

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Her history will play a role in her ability to help care for her infant.

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Attaching to her infant is the best treatment for NAS and may be protective against relapse

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# References

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