

# Xylazine Pharmacology 101

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Vanessa Cortez, PharmD  
UIC/Walgreens PGY1 Community Resident  
Test Positive Aware Network Presentation  
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# Objectives



Describe the pharmacologic properties of Xylazine



Understand why naloxone is ineffective in reversing the effects of Xylazine

# Introduction

- Xylazine is FDA-approved for use in veterinary medicine
  - Available in liquid formulations
- Not currently categorized as a controlled substance
- It has been increasingly found in the U.S. illegal drug supply
  - Combined with fentanyl



# Production and Distribution

- First synthesized in 1962
- Legitimately sold by pharmaceutical distributors of veterinary medicine
  - NextGen Animal Health
- Illegally sold on the internet with no association to veterinary profession
  - One kilogram can range from \$6 to \$20

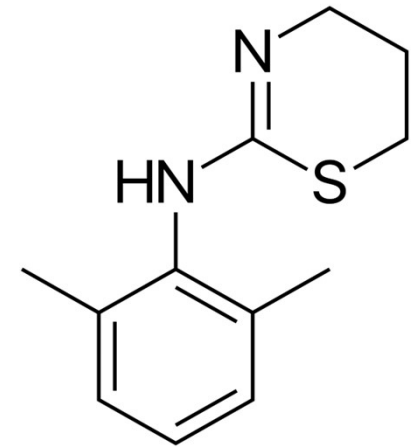


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# Chemistry and Pharmacology

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- A phenothiazine compound that exists in a hydrochloride salt form
- Alpha 2 adrenergic receptor agonist
  - Decreases dopamine and norepinephrine release
  - Effects are seen within minutes



- N-(2,6-dimethylphenyl)-5,6-dihydro-4H-1,3-thiazin-2-amine
- C<sub>12</sub>H<sub>16</sub>N<sub>2</sub>S

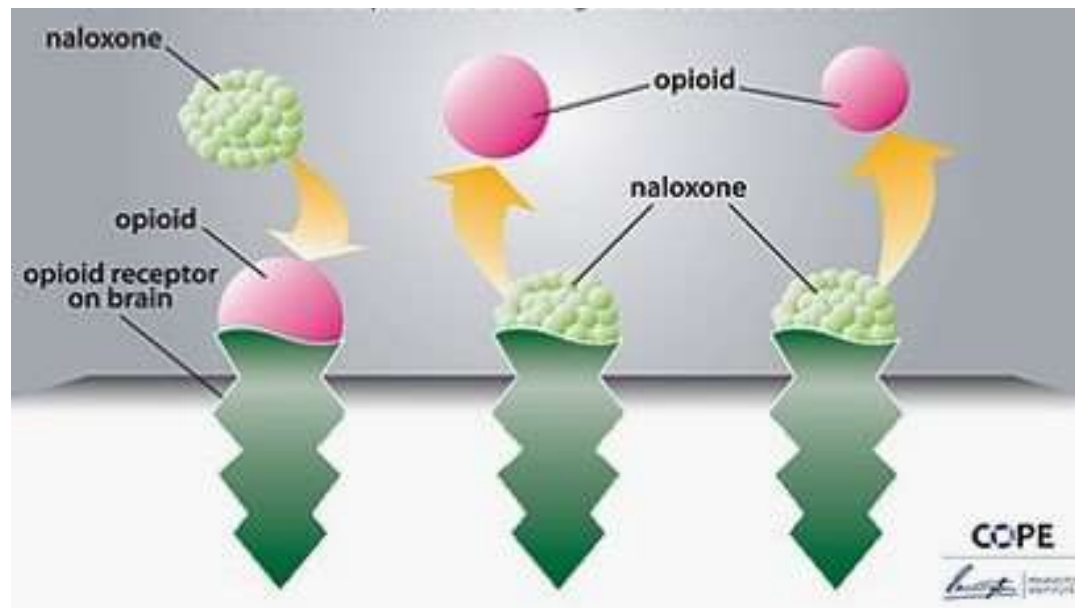
# Toxic to Humans

- CNS depressant
  - Drowsiness
  - Decreases heart rate
  - Decreases blood pressure
  - Slows respiration
- Signs/symptoms
  - Blurry vision
  - Disorientation
  - Coma
  - Seizures



# Naloxone (Narcan®)

- **Cannot** be used to reverse the respiratory effects of Xylazine



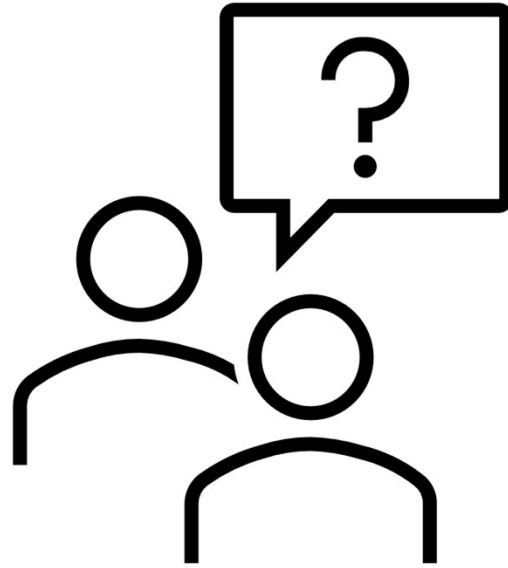
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*Thank you!*

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**Questions?**

