# picmonic

## Tricyclic Antidepressant (TCA) Antidote

Tricyclic antidepressants (TCAs) are an older generation of antidepressants that block the reuptake of norepinephrine and serotonin. This class of drugs are commonly known as "dirty drugs" that can cause a wide variety of side effects including antimuscarinic, alpha-blocking, and antihistaminic side effects. They can also cause cardiac arrhythmias and lower seizure threshold. Some TCAs are also associated with prolonged QT interval that can lead to torsades. Sodium bicarbonate is commonly used in TCA toxicity. Two mechanisms are postulated. First, alkalinization of the plasma can increase protein binding of TCAs and decrease their bioavailability. Second, the sodium load is thought to reverse the Na+ channel blocking effects of TCA.



PLAY PICMONIC

#### Antidote

### Sodium Bicarbonate (NaHCO3)

#### Salt-shaker and Bi-car-bombs

Sodium bicarbonate is commonly used in TCA toxicity. Two mechanisms are postulated. First, alkalinization of the plasma can increase protein binding of TCAs and decrease their bioavailability. Second, the sodium load is thought to reverse the Na+ channel blocking effects of TCA.