

Determining
The Cause &
Manner of
Death
Toxicology
Part3

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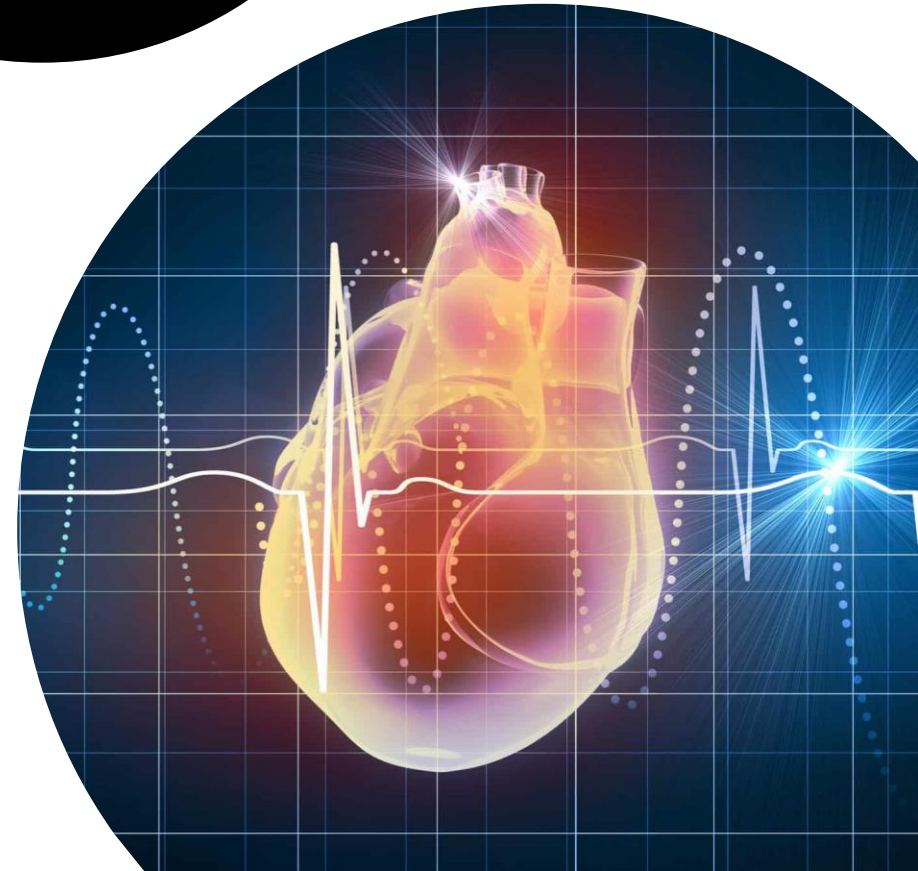
Introduction



- Although the medical examiner ultimately is responsible for determining the cause and manner of death, toxicological findings may also play an important role in making those determinations.
- Unfortunately, those findings rarely provide a black and white, clear cut answer, and drugs and poisons may be the cause or contributing factors in determining the manner of death

Natural

- A person may die of natural causes, but drugs may be involved in the mechanism of death.
- If someone with significant coronary artery disease, for example takes an amphetamine or cocaine, that person's heart rate increases, and the clogged arteries can't accommodate the demand, and may have a heart attack.
- The cause of death would be a heart attack, but the amphetamine or cocaine would be the contributory factor.



Natural Continued

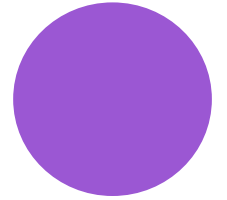


- When the medical examiner and toxicologist confront this situation, they must assess the extent of the victim's heart disease, the amount of drugs in the body, and whether a heart attack actually occurred.
- If the amount of the drug is low and the victim had severely diseased coronary arteries, they may conclude that the death was natural, and the drugs were only a small contributing factor.
- However, if the CAD is mild, but the drug level in the body is high, the death is likely accidental, and the drug was the mechanism.



Accidental

- Most accidental poisoning occur at home and often involve children.
- Curious by nature, children eat or drink just about everything-pesticides and paint thinners included.
- In adults, accidental poisoning most often occurs because the product is mislabeled, usually because someone placed it in a container other than the original one.





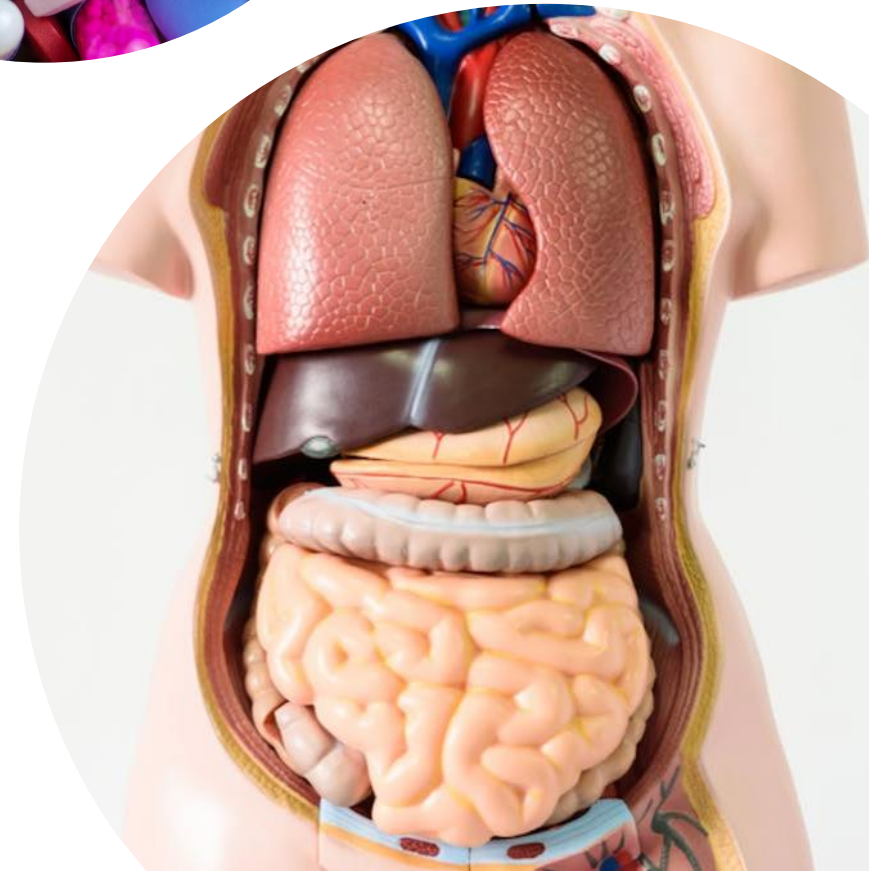
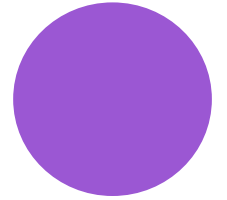
Accidental Continued

- Other major causes of accidental death from poisons or drugs are dose miscalculations or dangerous mixtures of drugs.
- Addicts often miscalculate the amount of heroin or amphetamine they're taking and die from this mistake.
- In addition, people often have unfounded beliefs. For Example, "If one dose of a drug is good, then two must be better."
- Mixing prescription sedatives and alcohol is also notoriously lethal.



Suicidal

- Suicide is the most common manner of death in poisoning, and the most common agent used is carbon monoxide.
- Other common agents are prescription drugs. The victim usually takes multiple drugs at once, which presents a difficult problem for the toxicologist.
- He/She must analyze the contents of the stomach, blood, urine, and tissues taken from internal organs to determine the level of each drug and assess how each drug contributed to the victims demise.



Homicidal



- Although homicidal poisonings were common from antiquity to the 21st century, they are uncommon today.
- Guns now seem to be the preferred method.
- In the remote past, determining why someone died was difficult, and ascertaining whether the poison was involved was virtually impossible.
- Modern technology has changed all that.
- Nonetheless, determining that poisoning was the cause of death still is one of the most difficult tasks for the forensic toxicologist and pathologist.

Homicidal Continued

- As is true of accidental and suicidal poisoning, homicidal poisonings occur most often at home, meaning the killer usually knows about the victims' habits and has access to the victim's food, drink and medications.
- Knowing who has this type of knowledge may be critical to the medical examiner and police investigators when probing into cases of homicidal poisoning.



Thank You For
Your
Attention!

