

The following excerpts from my Powerpoint slides are examples of the “mini case study” practice scenarios I use in BI103.

Endocrine detectives



A patient comes to you complaining about feeling light headed and dizzy whenever they exercise. They also mention that they always feel thirsty and frequently need to pee.

You suspect this person may have a disorder with which gland & hormone?



Your next patient mentions that they have been having a very difficult time falling asleep. Their insomnia has lasted for several weeks and it is starting to negatively impact their life.

You suspect this person may have a disorder with which gland & hormone?



You've had a busy day already, but there are always more patients to see! Your next patient tells you they frequently feel overactive and hyper. They also complain that no matter how much they eat they can never seem to keep weight on.

You tell the patient they may have a disorder with which gland?



The day is almost done, you just have one patient left. Your last patient is a new mother suffering from postpartum depression. She is worried that she is not bonding with her new baby.

You decide to run some tests looking for a disorder with which gland & hormone?



Practice Scenarios

You are working for the Tour de France, testing cyclists blood for prohibited substances. You discover that one of the riders, Lance, tests positive for a drug known to stimulate the release of the hormone **erythropoietin**.

Do you think this gives Lance an unfair advantage? Why/why not?

Potential side effects of having more red blood cells than normal?



Practice Scenarios



You are a home safety inspector, investigating a faulty heating system. You detect a carbon monoxide leak and immediately warn the homeowners to stay somewhere else until the leak is fixed. From your training you remember that carbon monoxide is very strongly attracted to hemoglobin. **Why would this make CO dangerous to human health?**



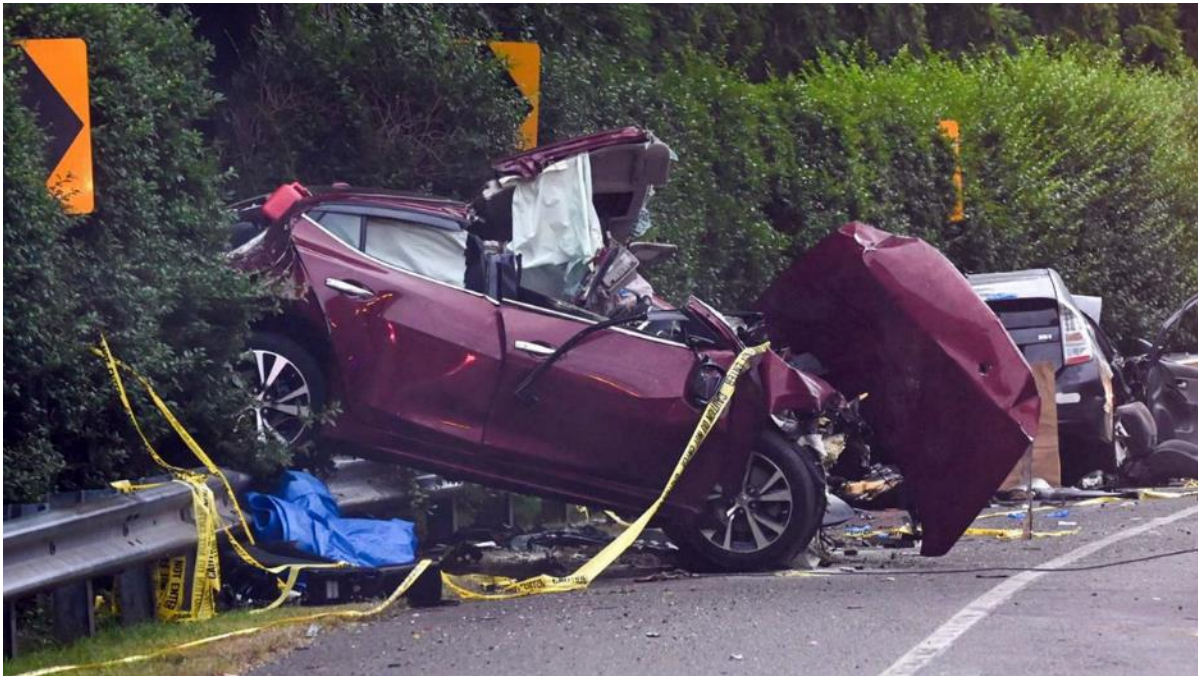
CARBON MONOXIDE
How to spot something that's colorless, odorless, and invisible?

A cartoon illustration of a man with a slight headache, holding his head with one hand.	A cartoon illustration of a man with a severe headache, holding his head with both hands and lightning bolts above his head.	A cartoon illustration of a man who is unconscious, with stars and a red swirl above his head.
Slight Headache Nausea Vomiting Fatigue	Severe Headache Confusion Drowsiness Fast Heart Rate	Unconsciousness Convulsions Cardio-respiratory Failure Death

Stop it, before it stops you.

Practice Scenarios

CRASH!!! Liu has just crashed his car and has lost a lot of blood. He needs an emergency transfusion! You are a doctor trying to help Liu, but he is unconscious and you don't know his blood type. **What blood type do you believe would be safest to give Liu? Why?**



Practice Scenarios

Kim was in an accident and needed a blood transfusion. She has type A+ blood, but there was a mix up at the hospital and she was accidentally given type B-blood. **What do you think will happen?**

