Toxicological Test

Background:

Toxicology is the study of substances which are harmful to human beings. Toxicologists have the responsibility of detecting and identifying the presence of drugs and poisons in fluids, tissues and organs. A poison is a chemical that produces a harmful effect on a living organism. Almost any substance has the potential of being poisonous in humans if a substantial amount gains entry into the body or if the substance enters the body by way of the wrong route. As a result, a variety of poisons exist in solid, liquid, or gaseous form.

Because there are tens of thousands of harmful substances, toxicologists routinely use “presumptive testing” to narrow down the possibilities so that more specific tests can be conducted.

Here, you will use a specially prepared test strip that provides a color change to indicate the presence of a particular group of poisonous substances when testing two samples – urine taken from the victim and a sample solution containing this group of poisonous substances.

Procedure:

1. Conduct a presumptive toxicological test by first putting a small amount of the poison solution onto a watch glass using a pipet. Dip the poison test strip into your poison solution. Observe the test strip for a color change. A blue color change indicates the presence of a particular group of poisons.

2. Repeat the toxicological test for the recovered urine sample from the victim. Were traces of the suspected poison found in the victim’s system?