



## S25. ENTOMOTOXICOLOGY

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Insects can be used to estimate a PMI (Post Mortem Interval) by applying the known developmental rates of insects and the successional patterns of different insect species on the dead body. Insects feed decomposed tissue and life stage of insects can be affected by contents of these tissues if it has some toxic material. Investigating the infected insect specimens also show concentration of toxic substances. Typical postmortem specimens for a toxicological analysis include brain, liver, kidney, heart blood, peripheral blood, vitreous humor, bile, urine, and gastric contents. In some cases, the tissue samples are rendered unsuitable for analysis, or they are simply no longer present in the body. Therefore, in these cases, alternative specimens often need to be examined. Properly preserved or freshly collected larvae and other insect forms can be treated as any other tissue for toxicological analysis.

Entomotoxicology is a relatively new branch of forensic entomology. Diptera and other arthropods can be reliable alternative method for drug detection in decomposed body.