

Urinary Excretion of Commonly Abused Drugs Following Unconventional Means of Administration

REFERENCE: Cone EJ, Huestis MA: Urinary excretion of commonly abused drugs following unconventional means of administration; *Forensic Sci Rev* 1:121; 1989.

ABSTRACT: Although abused drugs are administered most often by preferred routes, unconventional routes also may be employed. In addition, unsuspected drug exposure can occur by "unusual" routes, e.g., oral ingestion, passive inhalation, transcutaneous absorption, and in utero exposure. Urine testing is often used to document recent drug exposure. Much of the scientific literature on urine testing concerns studies of conventional routes of drug administration. This article reviews current data on urine testing following unconventional means of administration of drugs of abuse. In each section, a brief review of the principles involved in each unusual route is followed by a discussion of studies and case reports in which urine was tested for drugs of abuse. Special mention is made of the dangers of passive inhalation to small children and in utero exposure to fetuses. It is hoped that this review will sensitize those involved in interpretation of urine test data to the many possible ways drugs can enter the human organism.

KEY WORDS: Abused drugs, drug administration, forensic toxicology, interpretation of drug tests, in utero drug exposure, passive inhalation, transcutaneous absorption, urine testing.