

# Preface

---

Although not exactly a common topic for social conversations, drug testing directly and indirectly touches the lives of many people. Circumstances surrounding employment, traffic accidents, sports, and perhaps encounters with law enforcement inevitably involve some facets of drug testing. During the past two decades, drug testing has been greatly facilitated by the development of lateral flow immunoassays that simplify the testing procedures and make test results available in a timely fashion. Urine has been the biological specimen of choice for testing. However, recent technological advances have now made it possible to use alternative body fluids for this purpose. Subsequently, the field of drug testing has flourished as a science. It is with this view in mind that the present volume, *Drugs of Abuse: Body Fluid Testing*, is written. It is intended to be both informative and timely. Its audience includes not only professionals and scientists, but also cursory readers interested in understanding the societal impact as well as the limitations of drug testing.

*Drugs of Abuse: Body Fluid Testing* begins with a historical recounting of events that have led to the establishment of federal regulatory policies specifically pertaining to drug testing. This is followed by a broad description of the various body fluid specimens suitable for use in testing for illicit drugs. These two initial chapters are both informative and interesting to read. The next three chapters are designed for the technically minded. Chapter 3 presents a comprehensive review of all commonly used analytical technologies and their utilities in drug testing, both in laboratory-based and on-site settings. Chapters 4 and 5 then provide rather detailed accounts of the structural as well as manufacturing aspects of on-site testing devices based on lateral flow immunoassays. Because the use of urine as a testing matrix has been exhaustively discussed over the years in numerous publications, we have chosen in this volume to avoid repetition and concentrate on the use of other body fluids, such as saliva and sweat, and hair. The advantages as well as the pitfalls of using these specimens are the subject matter of Chapters 6–11. Of the alternative biological specimens, oral fluid has the best potential of succeeding urine as the next matrix of

choice for drug detection. Therefore, four popular saliva testing devices are selected for discussion. Following this section is Chapter 12, the author of which adopts the viewpoint that drug testing is, in practice, information transfer and argues that, to comply with privacy and accuracy issues, the processes of drug testing should be automated with as little human intervention as possible. On the application of drug testing in the legal system, Chapter 13 describes what occurs within the drug court system with intriguing statistics. Finally, any discussion on drug testing cannot be complete without an appreciation of the current status of sample adulteration. Two chapters are devoted to this purpose. Because drug addiction is not just a problem confined to the United States, the next two chapters of this volume bring the reader up to date on how the European Union deals with this problem. A large-scale roadside drug-testing program (ROSITA) was undertaken, the results of which would benefit not just the European Union, but also countries worldwide. Thus, this book covers a wide spectrum of issues related to body fluid testing of drugs of abuse, and is written by experts in their respective fields. The subject matter should appeal to a wide variety of readers.

***Raphael C. Wong***  
***Harley Y. Tse***

Drugs of Abuse

Body Fluid Testing

Wong, R.C.; Tse, H.Y. (Eds.)

2005, X, 306 p. 57 illus., 3 illus. in color., Hardcover

ISBN: 978-1-58829-435-7

A product of Humana Press