

# BIOLOGICAL MONITORING FOR CHEMICAL EXPOSURES AT WORK

## Learning Outcomes

- Understand the fundamentals of biological monitoring
- Understand the practicalities of establishing a biological monitoring programme
- Understand how biological monitoring can enhance the services that occupational hygiene and health professionals offer
- Be able to use biological monitoring to assess chemical exposures
- Know how to understand and act on results from biological monitoring reports

## Abstract

Biological monitoring is the analysis of hazardous substances, or their metabolites, in a worker's urine, blood or breath and is used to assess their exposure to chemicals by inhalation, ingestion or absorption through the skin. It is particularly valuable where the control of exposure relies on personal protective equipment or to investigate the behavioural aspects of exposure controls.

This course provides an introduction to biological monitoring, the practicalities associated with it and how it can be a useful and cost-effective tool for occupational hygiene and health professionals to assess and control exposure to substances in the workplace. Delegates will be shown how to use biological monitoring to assess chemical exposures and how to interpret biological monitoring results in order to protect worker health. The course includes practical, interactive learning elements using relevant case studies to enhance learning.

## Agenda

Time	Topic
00:00 – 00:05	Welcome
00:05 – 00:25	Introduction to Biological Monitoring
00:25 – 00:55	Practicalities of setting up a biological monitoring programme
00:55 – 01:30	View from a hygienist – case studies from actual site visits
01:30 – 02:00	Break
02:00 – 02:30	Practical session – group work around a case study
02:30 – 03:00	Interpreting BM results – including guidance values and when to take action
03:00 – 03:30	Monitoring in Practice – how to implement a biological monitoring programme

## Presenters, affiliations, and biography \*



**Kate Jones**

is the Biological Monitoring Team Lead managing an analytical service, advising on biological monitoring programmes, interpreting results and undertaking research.



**Peter Baldwin**

Peter is a Chartered Physicist and Occupational Hygienist, a Fellow of the BOHS and Royal Society of Public Health and a BOHS examiner. He is employed by HSE to perform research on exposure assessment and control to hazardous substances, including the use of biological monitoring.