

Biomonitoring

Precautionary Screenings in Occupational Medicine



Duty of prevention of the employer

In Germany, the employer is legally responsible for health protection at the workplace. In order to protect and promote the health and wellbeing of employees, any harmful factors from in and around the working life must be avoided. The directive for preventive occupational medicine (ArbMedVV) stipulates a regular, biological monitoring as an indispensable measure for individual prevention.

Biomonitoring

In the metal and plastics processing or waste disposal industries prevention measures are more comprehensive than in industries where less hazardous substances are handled. An essential biomonitoring lays down the requirement for valid analytics in body fluids, aside from the robust expertise on the metabolism of hazardous substances. This is where BioTeSys gets to work: the accredited contract laboratory analyses and determines a parameter spectrum in different matrices, which has been under continuous expansion since 2001. The primary analytical material for the prescribed biomonitoring is urine. Blood or mucosal swabs are mostly used for the detection of contaminations.

Stress parameters in human samples

In order to make the possible exposure of employees to hazardous substances more quantifiable and assessable, human samples are analyzed using liquid chromatography -mass spectrometry (LC-MS). BioTeSys examines solvent metabolites and mercapturic acids of carcinogenic working materials. Amongst others, the main metabolites of toluene, xylene and styrene or metabolism products of

benzene are determined. The content of mercapturic acids in urine, for example, is deemed a parameter of exposure to toxic substances in the body of the employee.



Reliable partner for company doctors

In addition to the long-term experience and accreditation, which guarantees the high precision and quality of results, our contract laboratory stands above all for flexible and fast project execution at fair rates. We customize sample taking and collection, deadlines for results of analysis and report generation, all entirely according to the company doctor's needs. The duty to prevention on behalf of the employer is thus fulfilled in a comprehensive and legal manner in collaboration with the company doctor.

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