

# Idiosyncratic drug reaction

A reaction that occurs rarely and unpredictably in a small percentage of the population in response to a treatment or medicine. These reactions frequently occur with exposure to new medicines and cannot be explained by the known mechanisms of action of the medicine, do not occur at any dose in most patients, and develop mostly unpredictably in susceptible individuals only. Based on the underlying mechanisms, idiosyncratic reactions can be differentiated into (1) immune-mediated hypersensitivity reactions such as skin rashes to serious systemic symptoms; (2) reactions involving non-immune individual susceptibility, often related to abnormal production or detoxification of cytotoxic metabolites; and (3) off-target pharmacology, whereby a medicine interacts directly with a system other than that for which it is intended.