Toxicologic pathology: the basic building block of risk assessment.

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Human health risk assessment is a critical factor in many risk management decisions. Evaluation of human health risk requires research that provides information that appropriately characterizes potential hazards from exposure. Pathology endpoints are the central response around which human health risk assessment is typically determined. Toxicologic pathology encompasses the study of changes in tissue morphology that help define the risk of exposure to xenobiotics. It is important to understand current concepts and nomenclature used by toxicologic pathologists because issues surrounding tissue processing, pathology review, standard techniques, and efforts made to standardize the conduct, review and reporting of pathology studies can impact the value of the information provided by the pathology assessment. Toxicologic pathology, as a discipline, changes and adapts over time including methods of analysis and nomenclature of lesions. As risk assessments are reevaluated and updated on commodity chemicals, frequently the older literature and previous studies must be re-evaluated. Understanding how to evaluate terminology and diagnoses in light of current standards, diagnostic drift, and changed interpretation is important for determining relevance for health risk. All these features are important for appropriate interpretation of data in support of human health risk assessment. [This abstract does not represent USEPA opinion or policy].