

the more general term ED_{50} . Later, the LD_{50} became a measurement by which the relative toxicities of different substances could be compared (SOT, 1989).

In 1927, Trevan introduced the concept of a median lethal dose (LD_{50}) for the standardization of digitalis extracts, insulin and diphtheria toxin (Chan and Hayes, 1989). Trevan realized that the precision of the LD_{50} value was dependent on many factors such as seasonal variation and number of test animals. Since that time the number of factors identified as affecting the LD_{50} has increased to include sex, age, species, strain, diet, nutritional status, general health, animal husbandry, experimental procedures, route of administration, stress, dosage formulation (vehicle) and inter- and intralaboratory variations (Chan and Hayes, 1989). Thus the LD_{50} is an imprecise value.

Despite this imprecision, the numeric value of the LD_{50} has been used to classify and compare toxicity among chemicals. The numeric LD_{50} per se is not equivalent to acute toxicity. Lethality is just one of many reference points in defining acute toxicity. The slope of the dose-response curve, the time to death, pharmacotoxic signs, and pathologic findings are all vital or even more critical than the LD_{50} numerical value in the assessment of acute toxicity (Chan and Hayes, 1989). It is for these reasons that the LD_{50} is no longer considered as important as it once was.