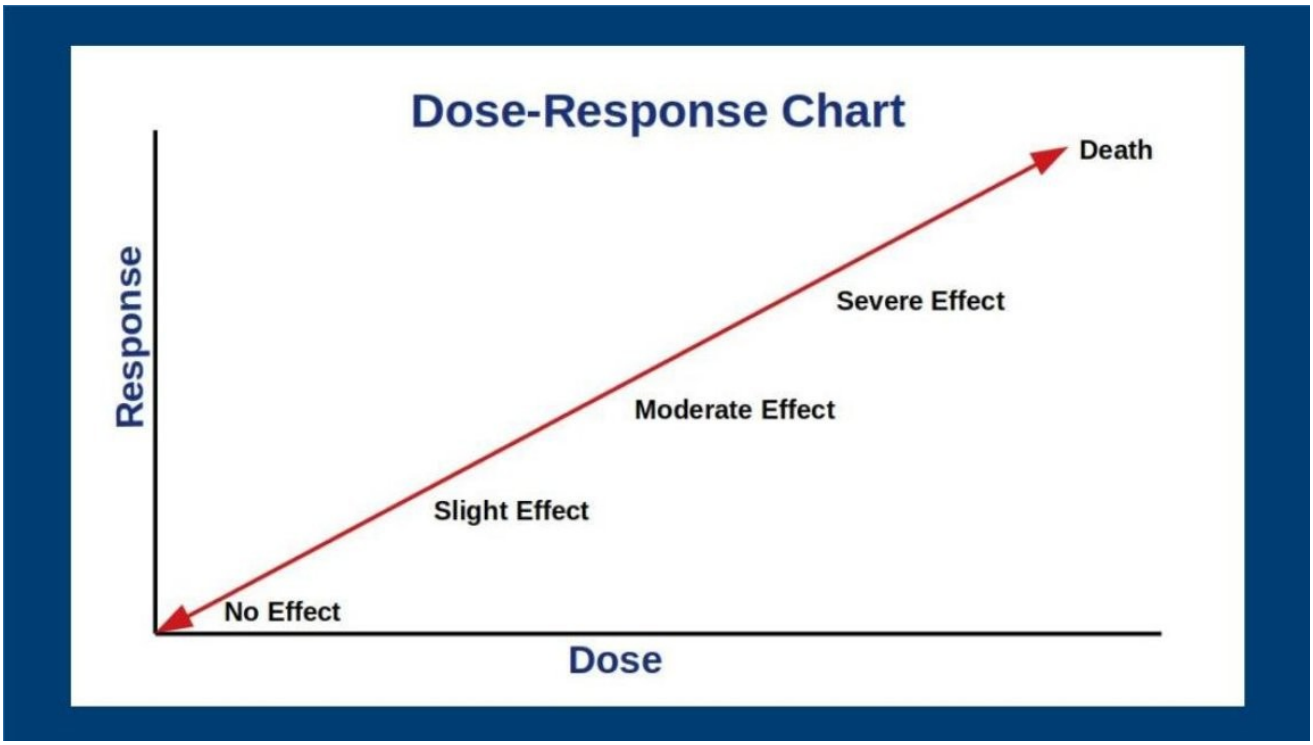
Dose-Response Relationship

Clinical toxicologists follow the principle: the dose makes the poison. The greater the toxic chemical exposure (dose) an individual has, the greater their response to the poison will be. In the simplified chart below, you will notice that the response progressively increases as the dose increases. Initially, there may be no noticeable effect. Then slight effect begins, followed by moderate effect, serious effect and, finally, death.



In the toxicologist's laboratory, only one toxic chemical is tested at a time. However, this is far removed from the reality of our daily experiences. In real life, no individual is only exposed to one toxic chemical in a day. Every single day of our lives, most people are exposed to thousands of toxic chemicals. Then if one adds up all the days of one's life from birth to the present time, a person will have been exposed to many millions of toxic chemical (poison) mixtures.

Tiny doses of a wide variety of toxic chemicals that an individual may encounter over the course of a day, a week, a month or a year can add up to a very huge dose of a mixture of poisons.

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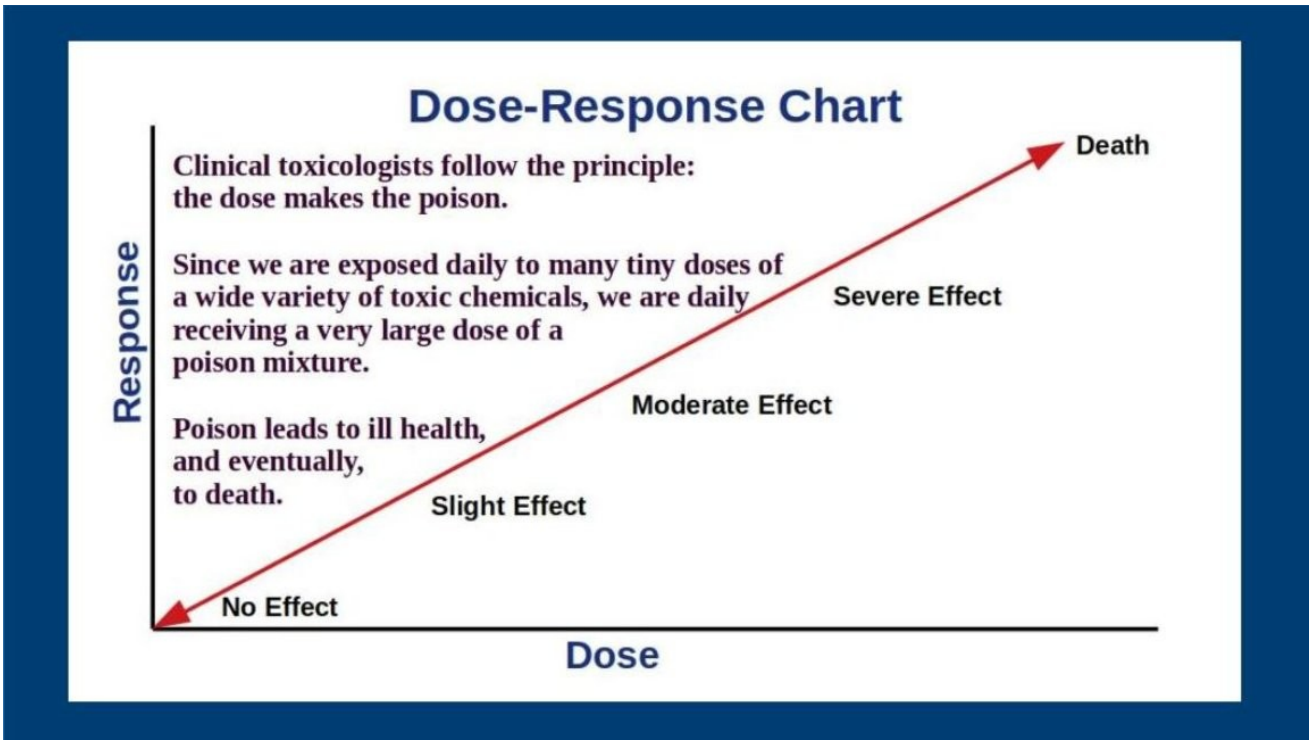

A huge dose can lead to health problems, if the body cannot adequately metabolize and eliminate these toxic chemicals. When the body is unable to eliminate the toxic chemicals, they will become stored in the tissues and organs of the body. As the amount of stored toxic chemicals increase, the body increasingly enters a poisoned condition. The symptoms that the person will experience will depend on the inherent characteristics of the toxic chemicals to which the person was exposed.

Medical intervention to treat an individual poisoned by toxic chemicals must involve lowering the toxic chemical exposures (dose). Otherwise, the medical intervention intended to aid the person will probably be ineffective. Notice in the chart, that as the dose is lowered, the response is also lowered. However, it must also be stated that the response often takes time to come back down, as it will depend on the degree of injury caused by the toxic chemicals.

Conversely, if the dose is not adequately lowered in time or if the medical intervention is inadequate, the poison mixture can disable and it can kill.

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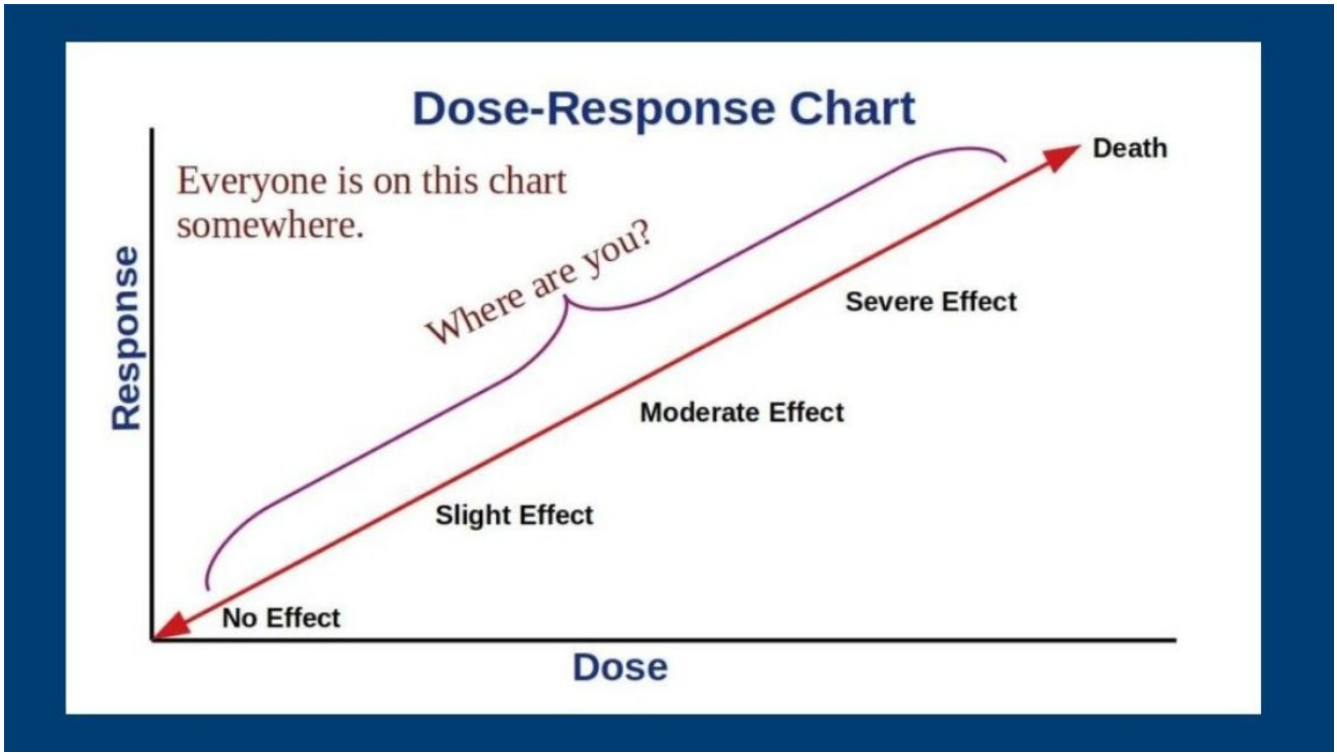
Dose-Response Relationship

In conclusion, we all need to evaluate our lifestyle and learn how to reduce our toxic chemical exposures. Since everyone is exposed to hundreds or thousands of toxic chemicals most days of their lives, everyone can place themselves on this chart somewhere. Where are you?



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