

# Area Under the Curve [AUC]

In the field of pharmacokinetics, the Area Under the Curve (AUC) has a specific meaning. It is the region under a plotted line in a graph of medicine concentration in blood plasma over time. Typically, the area is calculated starting from the time the medicine is administered until the time when the concentration in plasma is insignificant. The area under the curve represents the total exposure that the body receives to an active substance, and helps to evaluate and compare bioavailability profiles between medicines. The time at which the highest concentration of the active substance is found in the blood is called  $T_{\max}$ , and the maximum concentration of the active substance found in the blood stream is called  $C_{\max}$ .