Modelling real world problems using integral and differential equations with the exact parameters is often impossible in the real problems. To handle this lack of information, one way is to use uncertainty measures such as fuzzy concept (Zadeh 1965). Instead of using deterministic models of integral or differential equations, we can use fuzzy equations, where the values of functions may be fuzzy numbers. The effect of uncertainty in a diabetes model and its resulting complications is investigated as a practical application.