**Patients with uncontrolled diabetes and heart disease are more prone to dengue fatality**   
  
*Diseases like diabetes and heart disease suppress the immunity of individuals, making them prone to complications*   
  
**New Delhi, 23rd September:** The increasing incidence of dengue in the Capital is becoming a threat for its large diabetic population. The reason being that dengue fever increases the body temperature and metabolic rate simultaneously. This causes blood sugar levels to fluctuate and can prove fatal for the patient if the blood sugar levels are not controlled in time. In addition to this, several prescription drugs used for the management of diabetes and heart disease act adversely in dengue patients causing further complications.   
  
Dengue is transmitted by female Aedes Aegypti mosquitoes, which acquire the virus while feeding on the blood of an infected person. Dengue occurs in two forms: Dengue fever and dengue hemorrhagic fever or severe dengue. A person is said to be suffering from severe dengue when there is capillary leakage.   
  
The disease is marked by the onset of fever, headache, vomiting and pain behind the eyes, and in muscles and joints. There is no specific treatment for dengue fever apart from early recognition and adequate hydration. However regularly monitoring vital parameters is a must in diabetics and heart patients given the risk they run of severe thrombocytopenia and are more likely to developing Dengue Hemorrhagic Fever and Dengue Shock Syndrome. Use of aspirin during dengue fever is not recommended as it may increase the bleeding tendency. So all heart patients on regular low-dose aspirin must stop taking it immediately and consult their doctor if dengue is suspected. For diabetics with dengue, ‘insulin therapy’ is suggested because oral medications like metformin and DPP-4 inhibitors may react adversely and cause multi-organ failure. Urine ketones should regularly be checked for in patients with type 1 and 2 diabetes if acid levels are up in body. The medications should be modified accordingly thereafter.   
  
According to Padma Shri Awardee **Dr A Marthanda Pillai** National President Indian Medical Association (IMA) and Padma Shri Awardee, **Dr K K Aggarwal** Honorary Secretary General IMA and President Heart Care Foundation of India, “Those who are already suffering from one or the other morbidities are greater risk of developing complications if they contract dengue fever and must be closely monitored. For instance, a majority of dengue patients are unaware of the fatal consequences that drugs like aspirin can have on them due to its anti-platelet effect. Given that most heart and diabetic patients already have a low immunity, they must take additional precautions towards disease prevention. The best way to reduce chances of acquiring the illness is to eliminate the places where the mosquito breeds, like artificial containers that hold water in and around the home. Outdoors, one must regularly clean water containers like pet and animal water containers, flower planter dishes and keep water storage barrels covered.”   
  
Other precautionary measures include keeping a lookout for standing water indoors such as in vases with fresh flowers and clean them at least once a week. One must remember that the adult mosquitoes like to bite inside as well as around homes, during the day and at night when the lights are on. To protect oneself, it is important to use mosquito repellents while indoors or out. When possible, people must wear long sleeve shirts and long pants for additional protection. Also, they must make sure that the window and door screens are secure and without holes. Sitting in air-conditioned rooms can reduce the incidence of the disease.   
  
An easy to apply ‘Formula of 20’ that can be used to identify high risk patients with Dengue fever:

* Rise in pulse by 20
* Fall in upper blood pressure by more than 20
* Rise in hematocrit by more than 20 percent
* Rapid fall in platelets to less than 20,000
* More than 20 hemorrhagic spots on the arm in one inch after tourniquet test
* Difference between upper and lower blood pressure is less than 20

Start fluid replacement at 20 ml/kg/hour immediately in such patients, and shift to nearest medical center for observation