

**The Importance of Postprandial Glucose control to Type 2 DM patients**  
**~Guideline for Postprandial Glucose Control~**

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In conventional epidemic of Diabetes Mellitus, the therapeutic strategies usually try to treat or prevent chronic complications. The chronic complications could be divided into two entities, one is macrovascular, and the other is microvascular complication. Particularly, cardiovascular disease is the chief cause of morbidity and mortality in diabetic patients. The latent stage of cardiovascular disease may correlate to insulin resistance and postprandial hyperglycemia, which may begin 10 years before the onset of Diabetes Mellitus.

Increasing evidence suggests that the postprandial hyperglycemia is a contributing factor for development of atherosclerosis. In diabetes, the postprandial hyperglycemia is defined by a rapid increase in blood glucose levels, and the postprandial hyperglycemic spikes may be relevant to the onset of cardiovascular complications. Epidemiological studies and preliminary intervention studies have shown that postprandial hyperglycemia is a direct and independent risk factor for cardiovascular disease. The majority of cardiovascular risk factors are directly enhanced by an acute increase of glucose. Controlling the postprandial hyperglycemia may become the important therapeutic strategy for the prevention and management of cardiovascular diseases in diabetes.

On the other hand, more epidemiological studies discussed aspects of the link between insulin resistance, abnormal glucose tolerance, and cancer. A number of studies have bolstered the evidence of association of diabetes mellitus/hyperinsulinemia with breast cancer, colorectal cancer, prostate cancer, lung cancer and pancreatic cancer...etc. For example, normal mammary epithelial cells express insulin receptors, which are increased in breast cancer cells. Overexpression of insulin receptors in normal breast epithelial cells results in a transformed phenotype. Meanwhile, insulin is a well-known mitogen for cultured breast cancer cells, and can act via the IGF-I receptor, insulin receptor, and hybrid receptors, all of which are expressed by breast tumors. Therefore, we may assume that early control of

postprandial glucose level may improve hyperinsulinemia and insulin resistance, and further prevent the possible transformation of various cancer cells. In Taiwan, diabetes mellitus related complications and cancer are two main entities for disease mortality in general population. Under the results of recent research, we should pay more attention to control postprandial glucose, because the therapeutic prevention of diabetes mellitus may also be an important “chemoprevention” for various cancers.