

# Diabetes mellitus: Metabolic diseases characterized by hyperglycemia

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## Description

Diabetes mellitus is a group of metabolic diseases characterized by hyperglycemia resulting from defects in insulin secretion, insulin action, or both. Type 2 diabetes, the foremost prevalent sort of the disease, is usually asymptomatic in its early stages and may remain undiagnosed for several years. The chronic hyperglycemia of diabetes is related to long-term dysfunction, damage, and failure of varied organs, especially the eyes, kidneys, nerves, heart, and blood cells. Individuals with undiagnosed type 2 diabetes also are at significantly higher risk for stroke, coronary heart condition, and peripheral vascular disease than the no diabetic population. They even have a greater likelihood of getting dyslipidemia, hypertension, and obesity. Because early detection and prompt treatment may reduce the burden of diabetes and its complications, screening for diabetes could also be appropriate under certain circumstances. This position statement provides recommendations for diabetes screenings performed in physicians' offices and in other health care settings. This position statement doesn't address screening for type 1 diabetes or gestational DM (GDM). Due to the acute onset of symptoms, most cases of type 1 diabetes are detected soon after a symptom develops.

'Paolo Geni' is explained about the Diabetes and cancer, these are two heterogeneous, multifactorial, severe, and chronic diseases. Due to their frequency, reciprocal influences – even minor influences – may have a serious impact. Epidemiological studies clearly indicate that the danger of several sorts of cancer (including pancreas, liver, breast, colorectal, tract, and feminine reproductive organs) is increased

in diabetic patients. Mortality is additionally moderately increased. Several confounding factors, having general or site-specific relevance, make it difficult to accurately assess cancer risk in diabetic patients. These factors include diabetes duration, varying levels of metabolic control, different drugs used for therapy, and therefore the possible presence of chronic complications. Hyperinsulinemia presumably favors cancer in diabetic patients as insulin may be a protein with pre-eminent metabolic but also mitogenic effects, and its action in malignant cells is favored by mechanisms working at both the receptor and post-receptor level. Obesity, hyperglycemia, and increased oxidative stress can also contribute to increased cancer risk in diabetes. While anti-diabetic drugs have a minor influence on cancer risk (except perhaps the biguanide metformin that apparently reduces the risk), drugs wont to treat cancer may either cause diabetes or worsen pre-existing diabetes. additionally to the well-known diabetogenic effect of glucocorticoids and anti-androgens, an increasing number of targeted anti-cancer molecules may interfere with glucose metabolism working at different levels on the signaling substrates shared by IGF-I and insulin receptors. Last, diabetes and cancer have a posh relationship that needs more clinical attention and better-designed studies.

Diabetes mellitus (DM) may be a serious and growing ill health worldwide and is related to severe acute and chronic complications that negatively influence both the standard of life and survival of affected individuals. Today, 250 million people accept diabetes globally, with this figure expected to succeed in 380 million within 20 years. Therefore, if diabetes is associated even with a little increase within the risk of cancer, this might have important consequences at the population level.

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