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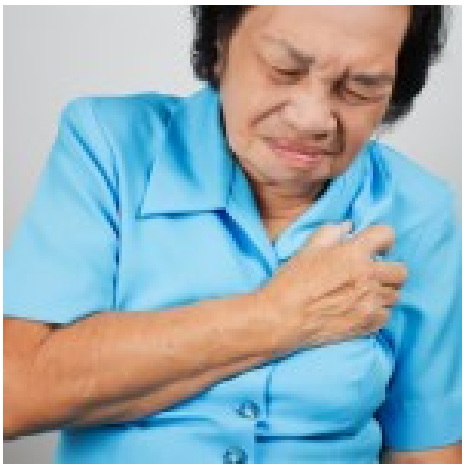
Type 2 Diabetes Not So Sweet for Women

By Lila Abassi — December 11, 2015



[1] via shutterstock [2]

Type 2 diabetes (DM) is not very sweet and certainly it is less so for women, according to the American Heart Association (AHA). In a recent scientific statement published in the journal *Circulation* [3], women with diabetes were found to have a twice the risk for heart disease, as compared to males with diabetes, and nearly four times the risk for heart disease-related death.

It's interesting to note that among non-diabetics, women are conferred a degree of protection from developing heart disease as compared to men. Women generally lag behind men about 10 years in developing heart disease. This edge does not translate to diabetic women.

Although nondiabetic women have fewer cardiovascular events than nondiabetic men of the same age, this advantage appears to be lost in the context of T2DM, said Judith Regensteiner, PhD, of the University of Colorado School of Medicine in Aurora, and chair of the AHA, as told to *MedPage Today*.

The sex differences that contribute to the cardiovascular outcomes related to diabetes are multifactorial (i.e. hormonal or physiological). There are some risk factors specific to women, such as those who have been diagnosed with gestational diabetes (have significantly elevated risk of developing DM later in life) and polycystic ovarian syndrome (PCOS). PCOS [4] features typically include obese females with insulin resistance, impaired glucose metabolism and high cholesterol.

The following differences exist for women with DM, as compared to male counterparts:

- Higher prevalence of obesity (especially post-menopause)
- More hypertension at > 60 years
- More abdominal adiposity (risk factor for heart disease)
- More insulin resistance
- Higher hemoglobin A1c (measure of long-term blood glucose)
- Twofold excess heart disease

- Earlier heart attacks with greater risk of death
- Higher risk of heart failure
- Greater risk of stroke
- Decreased survival after vascular surgery and increased post-surgical death

The authors also note that diabetic women require greater and more intense physical activity compared to men, to reduce their risk for heart attacks and strokes.

One possible explanation for sex differences observed between men and women could be attributable to sex hormones. As women age, the protective effects of estrogen diminish and the amount of testosterone that becomes bioavailable is increased, and harmful because it has been associated with obesity, DM and metabolic syndrome [5].

We would hope that increased awareness of greater cardiovascular risk among women with diabetes will help clinicians move towards a more individualized/personalized approach to risk stratification and treatments ¦ and move away from assuming all women are at lower risk for cardiovascular disease than men, stated Dr. Regensteiner. With ongoing research efforts, we may find the opposite is true, that we need to intensify certain prevention and treatment strategies in women with diabetes even more than in men.

This information does not seem surprising, however, given that women continue to be undertreated, underdiagnosed and understudied [6] when it comes to heart disease. Since 1984, more cardiovascular deaths continue to occur annually among women than men; coronary deaths in women exceed deaths in women from all forms of cancer combined.

This all underscores the fact that there continue to be healthcare disparities among men and women. More research and greater effort has to be directed toward understanding the factors contributing to this inequity.
