

## **Controlled Carbohydrate Nutrition**

### **You can reduce your future children's health risks**

If you could reduce your child's lifelong health risks for serious diseases before they're born would you be willing to do what it takes? I believe most women would answer yes without hesitation.

Research is pointing to the idea that common health conditions that face many of us can be influenced by the conditions we were exposed to while still in our mother's womb. Much of this influence seems to be related to Mom's diet and weight.

Presently, the focus on prevention of diseases such as diabetes and cardiovascular disease usually is not a major concern until we are reaching middle age. This strategy is not very successful. It appears that we must begin early--very early.

#### **Diet changes the developing fetus**

Research indicates that the diet the fetus is exposed to while still in the uterus influences risks for obesity, poor appetite control and even food preferences during their lifetime. This appears to happen whether the fetus is overfed or underfed.

Diets high in sugar and fat (the typical Western diet), appear to change the fetal brain and its regulatory systems. These changes apparently stay with the child once they're born.

We know that children exposed to high blood sugar levels in the uterus are more likely to be overweight or obese at a young age. The chances of obesity following that child throughout life are very high.

In the last 10 years or so we are seeing younger and younger kids who are overweight or obese. As a result they are developing metabolic syndrome and type 2 diabetes, putting them at risk for the complications of these diseases very early in life. Might this be the result of more and more women of child-bearing age being overweight or obese before or during pregnancy along with the consumption of foods containing added sugars and refined grains that have such negative effects on blood sugar and insulin regulation?

#### **Weight gain leads to blood sugar and insulin dysfunction**

We know that as weight increases, especially with a family history of diabetes, cells begin to use insulin less effectively (insulin resistance), blood sugar goes too high after a carb heavy meal and to compensate insulin levels also go too high. High insulin levels lead to increased fat storage continuing the cycle of fat gain. Over time this is an unhealthy combo for both men and women leading to a higher risk of type 2 diabetes and cardiovascular disease.

#### **Gestational Diabetes (GD)**

Normally during pregnancy insulin resistance increases as a result of the extreme hormone changes that occur. If you're already overweight and insulin resistant, risks for gestational diabetes are high. About 8% of pregnant women develop GD. As the numbers of obese women continue to escalate the incidence of GD will as well.

Gestational diabetes poses short and long term risks for both baby and mother. Women who have gestational diabetes have larger babies because of high insulin exposure. Labor and delivery is more dangerous and the need for C-section increases. Babies can suffer shoulder injuries and breathing problems. Shortly after delivery these babies are at risk for hypoglycemia and need to be closely monitored. More seriously, the long term risks to the child increase their chances of developing type 2 diabetes.

GD usually, but not always, goes away after delivery but is likely to recur in future pregnancies. Additionally, these women carry a higher risk of type 2 diabetes the rest of their lives. Recent research indicates the possibility of an increased risk of pancreatic cancer later in life as a result of having gestational diabetes.

You are not eating for two

Since about 50 percent of pregnancies are unplanned it is incumbent on women of child-bearing age to address their health issues *in case they become pregnant and continue to do so while pregnant.*

It is common for women to allow themselves dietary liberties during pregnancy. Unfortunately, those liberties can get very much out of control. It is best to avoid falling into the trap of eating for two or feeding your carb addiction.

Since obese, pregnant women have a great deal of stored fuel reserves some researchers have found that for very obese women little or no weight gain while pregnant has benefits. The amount of weight gain recommended should be individualized for each woman based on her pre-pregnant weight.

Regardless of weight circumstances, it is essential that the foods women concentrate on eating during this special time are whole, unprocessed foods with high nutrient value. Eat a variety of proteins and natural fats as the developing brain of the baby needs fats. Choose low glycemic vegetables and fruits. Minimize the intake of high glycemic fruits and vegetables along with foods containing added sugars and refined carbs- the very foods that disrupt blood sugar and insulin.

As I think about this, it really doesn't seem fair that not only do women have to suffer the discomforts and pain of pregnancy and delivery but it appears that it's essential to limit those foods that can offer a small amount of comfort.

Yet the reality is for many of us who spend years trying to manage our weight and health, it's a small price to pay to hopefully save our kids from a lifetime of struggle with these very same issues.