

February is Heart Month: Heart disease prevention starts earlier than you might think!



This month marks the 57th annual American Heart Month. President Lyndon Johnson (who died of heart disease) issued the first proclamation in 1964.

Despite over a half-century of exhortation to diet and exercise, and drug and surgical advances, heart disease remains the #1 killer of Americans. And this year there's a unique peril associated with heart disease: the pandemic.

COVID has accelerated heart disease death in two ways. First, it's an established comorbidity that dramatically increases the chance of dying should a person contract the virus.

Second, it's expected there will be a dramatic uptick in heart disease deaths for years to come, even after COVID is vanquished, due to delayed diagnosis and treatment; people are simply not getting the preventive checkups during the pandemic that might forestall eventual cardiac disease.

Add to that the effects of stress, poor diets, and sedentary lifestyles accentuated

by prolonged lockdowns. There's strong evidence that a considerable proportion of the "excess deaths" that have occurred since COVID are occurring in people who never contracted the virus—they're the consequences of disrupted medical care, demoralization, and lapses in self-care.

It may be too late to get most US adults to change their ways. Study after study has underscored the futility of trying to get grownups to make big lifestyle changes—and stick to them. To stem the tide of heart disease, we need to start early. But remember when celebrity chef Jamie Oliver decided to take on Americans' poor dietary habits? He targeted West Virginia, a state with one of the highest rates of obesity and heart disease, as Ground Zero for his evangelistic campaign. Here's what happened:

"He swaggered into town with a can-do attitude, a cheeky-chappie smile, and a burning desire to help the world's fattest schoolchildren. But less than an hour later, the impertinent English superchef was being reduced to tears as hostile locals told him to lay off their beloved nuggets, pizza, and chocolate milkshakes." (Source)

A new study suggests why. It may be that, by an early age, food preferences and metabolic dysregulation become deeply ingrained. According to landmark research, *"eating too much fat and sugar as a child can alter your microbiome for life, even if you later learn to eat healthier."* This effect is mediated via the microbiome, the composition of bacteria in the intestine. According to scientists, early feeding patterns can have a long-lasting "hardwiring" effect on the GI flora, with consequences for food preferences and energy metabolism that are resistant to later-life interventions.

Leyla Weighs In: Why I disapprove of restaurant "children's menus"

This message was underscored by yet another new study: "Microbiome connections with host metabolism and habitual diet from 1,098 deeply phenotyped individuals" in *Nature Medicine*. The authors demonstrated a clear relationship between the intestinal bacterial species associated with a healthy diet and markers of cardiovascular risk.

Moreover, a new study by Harvard pediatrician Dr. David Ludwig highlights how our vaunted school food programs are perpetuating the problem:

"Most schools exceeded the DGA [Dietary Guidelines for Americans] limit for added sugars at breakfast (92%), while 69% exceeded the limit at lunch. The leading source of added sugars in school meals (both breakfasts and lunches) was flavored skim milk. More than 62% of children consumed breakfasts that exceeded the DGA limit, and almost half (47%) consumed lunches that exceeded the limit. Leading sources of added sugars in the breakfasts consumed by children were sweetened cold cereals and condiments and toppings; leading sources of added sugars in children's lunches were flavored skim milk and cake. Over 24 h, 63% of children exceeded the DGA limit. These findings show that school meals and children's dietary intakes are high in added sugars relative to the DGA limit and provide insights into the types of foods that should be targeted in order to decrease levels of added sugars."

Most parents will attest to how hard it is to control their kids' craving for junk. By the time they're exposed to media, cartoon characters who shill for cereals and snack foods, play dates with the children of less-enlightened parents, and treat-laden school environments, their food predilections are set. How soon should we get started?

Maybe in utero is not too soon. Researchers reported in *The BMJ* that, “When mothers had diabetes during pregnancy, their offspring were 29% more likely to develop cardiovascular disease.”

Many women struggle with gestational diabetes but are relieved when their blood sugars normalize after they deliver. But they should consider it a warning shot. Not only could it affect the destiny of their offspring; gestational diabetes could also be a harbinger of higher risk of heart disease for these women **after their child-bearing years**. And keep in mind that, while heart disease is stereotypically considered a man’s disease, one-third of women die from it.


Conquering gestational diabetes

While much of the emphasis on heart disease prevention has been on **avoiding saturated fat** and cholesterol, isn’t it time for a reappraisal in view of the dismal record of success of our decades-long campaign? The recent **PURE Study** indicts refined carbohydrates. It was found that adults who eat three slices of white bread daily have a significantly increased risk for dying from cardiovascular causes:

“ . . . people who reported eating at least 350 g (seven servings) of refined grain daily had a significant 29% increased risk of either death or a major CVD event (MI, stroke, or heart failure), compared with those who consumed less than one serving per day (fewer than 50 g) of refined grain . . .”

It’s my conviction that our only hope for making significant inroads on cardiovascular disease is to shape our kids’ metabolisms and predilections *early*. That means prospective moms need to eat clean diets during pregnancy, breast-feed while themselves not consuming soda and fruit drinks laden with sugar (secondhand sugars can be passed through breast milk), and be role models for toddlers who should be encouraged to experiment with a wide variety of healthy foods to attune their palates and cultivate their developing microbiomes.

Toddlers should be invited into the kitchen to help with food prep. Handling and sampling food should be a daily part of the exploratory behavior that results in healthy later-life food choices. It’s an important, brief window-of-opportunity that, if missed, will result in yet another generation lost to the ravages of heart disease.

Read more about the criticality of early diet imprinting in Bea Wilson’s landmark book, *First Bite: How We Learn to Eat* .