Progress on Prostate Cancer Research December 2020

Advancements in prostate cancer research provide hope for finding a cure and lead to the discovery of new treatments to minimize the impact of a man's prostate cancer and maximize his quality of life. This regular *Hot SHEET* supplement includes some of the latest research from the Prostate Cancer Foundation (www.pcf.org).

The PCF is the world's leading philanthropic organization funding and accelerating prostate cancer research. Founded in 1993, the PCF has raised more than $745 million and provided funding to more than 2,000 research programs at nearly 200 cancer centers and universities.

Our holidays may look different, but we'll probably have the chance to sample some less-than-healthy foods – perhaps a box of homemade cookies left on the doorstep by a neighbor. It's a time enjoy some treats, while keeping the "big picture" of healthy eating in mind. Janet Farrar Worthington consulted experts about the relationship between food and prostate cancer.

Your Best Life Before, During, and After Prostate Cancer: Focus on Diet

By Janet Farrar Worthington

Eating the right diet can boost your spirits, your energy level, and just generally make you feel better. Most importantly for prostate cancer, certain foods can help lower chronic inflammation (https://pubmed.ncbi.nlm.nih.gov/32546840) and insulin (https://www.pcf.org/c/prostate-cancers-sweet-tooth) that fuel prostate cancer growth, and, in addition, can help your body fight or prevent any number of chronic diseases that are also driven by chronic inflammation. The good news is that it goes both ways: there is growing evidence that the lifestyle choices that keep you safe from other diseases – such as eating low sugar for diabetes, or exercising for your heart – can also help prevent or curtail prostate cancer.

First, Why Studying Diet is Hard

Research on food as medicine is one of the hardest areas in which to do controlled, rigorous research. PCF-funded epidemiologists June Chan, Sc.D., of UCSF and Lorelei Mucci, M.P.H., Sc.D., of Harvard both study lifestyle factors and their effect on prostate cancer. Even though many late-night TV ads might try to tell you otherwise, there are no single magic bullet diet prescriptions for disease.

In many studies over the years, scientists have tried to isolate specific foods to see if they promote or prevent cancer; they do that by asking people to recall what they ate over certain periods of time or keep a food journal. Such studies take a long time, and are not without their share of problems. **For example, even if you isolate certain foods that seem promising, there is still a lot of variation!** Let's say, hypothetically, you notice that people who eat apples are less likely to get cancer. But what about the kind of apples, how many were eaten, whether people who eat apples are also more likely to exercise and take better care of their health in general? – it's not that simple. This is why you might notice that science around nutrition takes time; or you might see it evolve over time as scientists "factor out" more variables.

Broad Strokes are Better

There are a confusing number of variables in food science, so researchers don't yet have a Paint-by-Number approach, with every single food accounted for. Instead, today's food science is painting with some broad – but definitive – strokes.

Chan and Mucci both cite work led by Harvard scientists Fred Tabung, Ph.D., M.S.P.H., and Edward Giovannucci, M.D., Sc.D., that look at the relationship (https://pubmed.ncbi.nlm.nih.gov/29897561) between diet and inflammation. In the study, the scientists tracked inflammatory markers in the blood and whether inflammation was raised or lowered by what people ate, based on data from thousands of participants in the Nurses' Health Study and the Health Professionals Follow-Up Study. The key lies in the foods they found that **significantly reduce chronic inflammation:** dark yellow vegetables (carrots, winter squash, sweet potatoes, etc.); leafy green vegetables (like spinach, broccoli, kale, etc.), coffee, and wine. Beer (one bottle, glass, or can) was in this category, too. So was tea, but its effect was not very strong.

The pro-inflammatory (aka, bad) category included: processed meats (hot dogs, bacon, pepperoni, lunch meat, etc.), red meat, refined grains, high-energy beverages (with additives and sweeteners), and "other vegetables," like potatoes and corn. Interestingly, not all fish is equal: canned tuna, shrimp, lobster, scallops, and "other" fish were more inflammatory than "dark-meat" fish like salmon or red snapper.

But if you love canned tuna, and if you love a baked potato or corn on the cob, don't freak out: remember, broad strokes! The key seems to be to **make sure you DO eat the anti-inflammatory foods.** For example, the anti-inflammatory effects of leafy green vegetables, dark yellow vegetables, wine and coffee are more powerful than the very mild, pro-inflammatory effect of "other fish" or "other vegetables." If you feel like you just can't give up meat entirely, that's okay too: just aim for small portions of meat, surrounded by a rainbow of anti-inflammatory vegetables.