Antibiotic Berry Therapy David Christopher, M.H.

There is no question that antibiotics are over used and the overuse has created a medical crisis of super bugs or bacteria that have become resistant to all antibiotics. According to the CDC at least 2 million Americans are infected each year with drug-resistant bacteria, while some 23,000 die from those infections.

I am asked frequently which herbs can be used effectively against these "super bugs." I usually respond that garlic is the best (see Herbal Legacy Newsletter on garlic 10/12/2016). I also suggest that any herb containing the alkaloid berberine should be utilized. Berberine is found in herbs such as Golden seal, Oregon grape, Barberry and Coptis.

However, let us look at herbs that can actually prevent bacteria from adhering to our cell structure. These herbs that prevent bacteria from adhering and propagating in our bodies are also very good tasting and can be a part of our daily diet. These herbs are berries, specifically blueberries and cranberries.

It was discovered in the 1980's that the poly-saccharides in these berries attract bacteria to their surface. The bacteria adhere, permanently, to these large sugar molecules and are swept out of the body through its multifaceted eliminative system. These berries would then negate the need for anti-biotics and the creation of super bugs.

More recent research names other compounds in the whole berry that prevent bacteria from adhering and creating biofilms for propagation. These compounds include proanthocyanidins (PAC's) and the ever present flavanols.

Science Daily reports the following about a paper published by Worcester Polytechnic Institute and the University of Massachusetts Dartmouth.

"The research team, led by Terri Camesano, PhD, professor of chemical engineering and dean of graduate studies at WPI, and Catherine Neto, PhD, professor and chair of chemistry and biochemistry at UMass Dartmouth, report their findings in the paper "Atomic force microscopy-guided fractionation reveals the influence of cranberry phytochemicals on adhesion of *Escherichia coli*" published in The Royal Society of Chemistry's journal *Food & Function*.

The new data builds on previously published work, in which Camesano and her team showed that cranberry juice compresses the tiny tendrils (known as fimbriae) on the surface of the *E. coli* bacteria that enable it to bind tightly to the lining of the urinary tract. The change in shape greatly reduces the ability of

the bacteria to stay put long enough to initiate an infection. Flavonols also are likely to affect the ability of fimbriae to bind to surfaces, but in a different way than PACs do, Camesano noted."

The inclusion the tasty blueberries and the more researched cranberries in a daily diet prove that an ounce of prevention is worth a pound of cure, or in the current world crises no cure.

David Christopher *is a Master Herbalist and the director of The School of Natural Healing. He also co-hosts the popular radio show "A Healthier You" and is a popular international teacher and lecturer.*