

## Getting a Handle on Antioxidants, Part 2 of 3

*(A color guide and new classification system for selecting foods by specific antioxidant groups)*

### Why Antioxidants?

The antioxidant chemicals that we get from colorful plant foods are our best defense against threatening oxidants. Oxidative stress is a normal part of cellular metabolism that occurs even in healthy people. Moment by moment throughout life, the metabolism by our body's cells is generating *millions* of oxidizing reactions! How do we survive this onslaught of free radical attacks? Diet and good health.

Normally, oxidative species are neutralized by antioxidant enzymes and food-derived antioxidants. However, the following circumstances can cause an imbalanced oxidant-antioxidant relationship that allows oxidative stress to go unopposed.

- Contamination by environmental pathogens like ultraviolet irradiation and toxic pollutants like cigarette smoke
- Normal aging
- Poor dietary intake of essential nutrients and phytochemicals

The result of this imbalance is cellular disruption or genetic pathologies leading to diseases like:

- Cancer
- Hypertension
- Diabetes
- Chronic inflammation
- Neuronal degeneration as in Alzheimer's disease.

### The Color Code for Antioxidants

Over the past 5 years, we have begun a valuable process for recognizing plant food antioxidant qualities by groupings of color – The Color Code, as written in two books entitled *The Color Code* and *What Color is Your Diet?* (publication information in Part 3).

The following is a summary of those color guides for antioxidants, and an example of how we can begin to classify and categorize the different antioxidants into the food color code.

### **Summary of the Color Code**

This is a general scheme of example foods that can fit into each color class. Keep in mind that there are no firm lines between the classes, allowing for overlap.

1. Red – tomato, pink grapefruit, watermelon
2. Blue/Red/Purple/Black (BRPB) – blueberry, cherry, prune, blackberry
3. Orange/Yellow – carrot, pumpkin, orange, papaya
4. Green – broccoli, kale, spinach, pea
5. White – garlic, onion, cabbage, turnip
6. Brown/Gray – spices, nuts, seeds, endogenous sources

In Part 3, we complete this introduction to antioxidants by applying the color code to various classes of *antioxidant* chemicals in our bodies and in the foods we choose. We finish off the discussion by proposing a novel naming system – a nomenclature that allows recognition of antioxidants present in the foods of our diets.