



UNITED TRIBES
TECHNICAL COLLEGE
LAND GRANT EXTENSION

NUTRITION EDUCATION

Fruits and Vegetables

Connecting Mother Earth to Health through the Kitchen Table

LS00023

Antioxidants for Good Health – It's About the Color

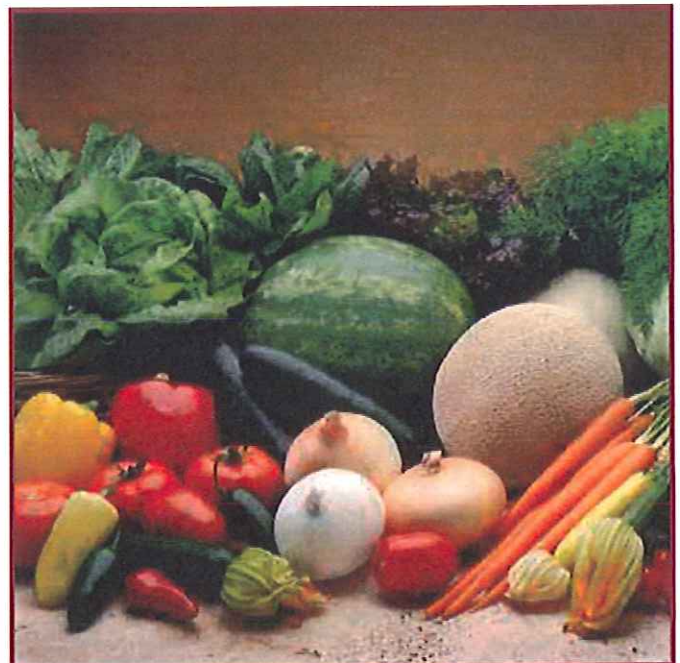
Oxidation, or the **normal aging process**, allows free radicals to cause stress or damage to cells. Antioxidants, by their very nature, are capable of stabilizing those free radicals before they cause harm. Because oxidation occurs naturally to everyone as we age, we need to balance the aging process by eating functional foods which are high in antioxidants.



Traditional foods gathered and eaten by indigenous families were filled with these antioxidant components supporting healthy bodies. These components include vitamins A, C, and E; β -carotene; the mineral selenium; and lycopene, Resveratrol, indoles, anthoxanthins, and anthocyanines.

Degenerative diseases associated with aging, cardio-vascular disease, cognitive impairment, Alzheimer's disease, immune dysfunction, cataracts, macular degeneration, as well as cancers are found to also be slowed if the intake of fruit and vegetables is high.

Plant foods, such as fruits, vegetables, and whole grains contain many components that support health. These foods contain antioxidants and may delay the onset of age-related cell damage and diseases. Antioxidants are present in foods as vitamins, minerals, carotenoids, and polyphenols, among others. Many antioxidants are identified in food by their **distinctive colors** — the **deep red** in cranberries, buffalo berries, and cherries; the **white** of turnips, roots, onions, and potatoes; the **green** in cattail shoots, beans, and peas, the **yellow** of corn, mangos, and squash; and the **blue-purple** of chokecherries, Juneberries, blueberries, blackberries, and wild grapes.





Green fruits and vegetables contain plant pigment called "chlorophyll." Dark leafy greens, green peppers, peas, cucumber and

celery, contain lutein. Lutein works with zeaxanthin, found in corn, red peppers, oranges, grapes and egg yolks to help keep eyes healthy, which helps reduce risk of cataracts and age-related blurring. "Indoles" in cabbage may help protect against some macular degeneration and types of cancer.

- Avocados
- Broccoli
- Green cabbage
- Green grapes
- Kiwi
- Green onions
- Peas
- Spinach
- Green beans
- Brussels sprouts
- Cucumbers
- Honeydew melon
- Lettuce
- Limes
- Green Pepper
- & Zucchini

Red fruits and vegetables contain pigments called "lycopene" or "anthocyanins."



Lycopene in tomatoes or pink grapefruit may help reduce risk of several types of cancer. Anthocyanins in strawberries, or red grapes act as powerful antioxidants. The antioxidants are linked with healthy hearts.

- Red Apples
- Buffalo Berries
- Radishes
- Cherries
- Pink grapefruit
- Red peppers
- Red Rhubarb
- Tomatoes
- Beets
- Red potatoes
- Raspberries
- Cranberries
- Red grapes
- Pomegranates
- Strawberries
- & Watermelon



Orange/yellow fruits and vegetables contain pigments called "carotenoids." Betacarotene in sweet potatoes, pumpkins and

carrots is converted to vitamin A, which helps maintain healthy mucous membranes and healthy eyes, reducing risk for macular degeneration. Carotenoids also may be good for your heart. Citrus fruits are excellent sources of vitamin C and folate, necessary for cell growth and immunity.

- Carrots
- Lemons
- Oranges & Tangerines
- Peaches
- Carrots
- Pumpkin
- Sweet potatoes
- Yellow summer or winter squash
- Nectarines
- Papayas
- Yellow peppers
- Pineapple
- Sweet corn
- & Yams

Blue/purple fruits and vegetables contain natural plant pigments called "anthocyanins."



Anthocyanins in blueberries, grapes and raisins act as powerful

antioxidants that protect cells from damage. They may help reduce risk of cancer, stroke and heart disease.

- Blackberries
- Chokecherries
- Figs
- Plums
- & Raisins
- Blueberries
- Eggplant
- Juneberries
- Purple Grapes

White fruits and vegetables are colored by pigments called "anthoxanthins." They may contain health-promoting chemicals such as alliin, which may help lower cholesterol and blood pressure.

- Bananas
- Ginger
- Onions
- Potatoes
- Cauliflower
- Jicama
- Garlic
- Mushrooms
- Parsnips
- Turnips