## **GRAPES**

Alternate your breakfast between blueberries, grape fruit, and grapes.

Always eat only one species at a time in order to secure metabolism

Anti viral / anti fungal, anti cancer colon/prostate, degenerative nerve disease, Alzheimer's, coronary heart disease, reduce anxiety (Anthocyanins)

- Grapes are rich in polyphenolic phytochemical compound resveratrol.
   Resveratrol is one of powerful anti-oxidant, which has been found to play protective function against cancers of colon and prostate, coronary heart disease (CHD), degenerative nerve disease, Alzheimer's disease and viral/ fungal infections.
- Resveratrol (3,5,4'-trihydroxy-trans-stilbene) is a stilbenoid, a type of natural phenol, and a phytoalexin produced naturally by several plants when under attack by pathogens such as bacteria or fungi.
- A **polyphenol antioxidant** is a type of antioxydant containing a polyphenolic or natural phenol substructure. Numbering over 4,000 distinct species, many of these compounds have antioxidant activity in vitro but are unlikely to have antioxidant roles in vivo Rather, they may affect cell-to-cell signaling, receptor sensitivity, inflammatory enzyme activity or gene regulation.
- Resveratrol reduces stroke risk by altering the molecular mechanisms in the blood vessels. It does so firstly by reducing susceptibility of blood vessels damage through decreased activity of angiotensin (a systemic hormone causing blood vessel constriction that would otherwise elevate blood pressure) and secondly, through increased production of the vasodilator substance, nitric oxide (a beneficial compound that causes relaxation of blood vessels).
- Anthocyanins are another class of polyphenolic anti-oxidants present abundantly in the red grapes. These phyto-chemicals have been found to have anti-allergic, anti-inflammatory, anti-microbial, as well as anti-cancer activities.
- Catechins, a type of flavonoid tannin group of anti-oxidants found in white/green varieties has also shown to have these health protecting functions.
- In addition, the berries are very low in calories. 100 g fresh grapes just provide 69 calories but zero cholesterol levels.
- Grapes are rich source of micronutrient minerals like copper, iron and manganese. Copper and manganese are an essential co-factor of antioxidant enzyme,

superoxide dismutase. Iron is specially concentrated more in raisins. In addition 100 g of fresh grapes contain about 191 mg of health benefiting electrolyte, **potassium**.

• They are also good source of **vitamin-**C, vitamin A, vitamin K, carotenes, B-complex vitamins such as pyridoxine, riboflavin, and thiamin.