

# VITAMIN E

*God gives the nuts, but he does not crack them. – Franz Kafka*

## Vitamin E - Basics

- Refers to a family of eight compounds ( $\alpha$ -,  $\beta$ -,  $\gamma$ -,  $\delta$ -tocopherols, and  $\alpha$ -,  $\beta$ -,  $\gamma$ -,  $\delta$ -tocotrienols).
- Natural vitamin E is listed as "d-" form. Synthetic (less bioavailable) vitamin E is listed as "dl-" form.
- Antioxidant found in cell membranes. It protects cell membranes, boosts immune function, helps combat damaging free radicals - molecules which damage cells and may contribute to the development of cancer and cardiovascular disease
- Requires dietary fat for absorption.
- > 90% of adult Americans do not meet recommended daily allowance (RDA) of 15 mg.
- Dietary sources: Nuts and seeds, legumes; green vegetables, avocado, fatty fish/seafood, including shrimp and sardines.



## Role of Vitamin E in health

- Avoid synthetic vitamin E supplements which are derived from petrochemicals, include only  $\alpha$ -tocopherol, and have been linked to increased tumor progression in mice. Opt for natural vitamin E derived from foods; it is the ideal source as it contains all eight vitamin E compounds.
- Neuroprotective and anti-inflammatory properties – improves diabetic peripheral neuropathy, enhances nerve function, ameliorates neuropathic pain and neuronal injury.
- Prevents DNA damage – an underlying factor in aging. DNA damage also leads to dysfunctional immune system. Thus, vitamin E plays immuno-protective role.
- Cardiovascular risk reduction – decreases arterial stiffness.
- Cancer risk reduction, especially colon, rectum, prostate, breast, and lung.