



## FOUNDATIONS OF INTEGRATIVE ONCOLOGY

### Module 4 Toolbox: Therapeutic Interventions & Immue Modulation

#### Lesson 1 Core Nutraceuticals

##### Learning Objectives – Understand and describe:

- Core nutraceuticals, botanicals and phytochemicals
- Value of multivitamins
- Rationale for limiting Cu, Fe and Bo
- Recommended nutraceuticals for supporting bone health
- Soy Isoflavones

##### Multivitamins

- Copper-free and Iron-free (Boron-free for some patients)
- Activated forms of B-vitamins to support mitochondrial function
- Methylated forms of B12 and Folic Acid
- Highly absorbable forms of minerals
- Nutrients supportive of P450 enzyme systems (B complex, Zn, Se, Mb, Mn)
- Support for glycemic control (B complex, Cr, Vn)

##### Iron, Ferritin and Copper:

- Tumor cells sequester iron and neoplasms grow in areas where iron is stored
- Copper is REQUIRED for angiogenesis
- Higher serum iron, transferrin saturation or copper concentrations = increased risk of dying from cancer
- Boron demonstrates steroidogenic estrogenic effects – Limit in hormone-sensitive conditions

##### Bone-supportive Nutritional Supplements

- Calcium Malate, Citrate
- Magnesium Malate, Citrate, Glycinate
- Vitamin K Menaquinone
- Vitamin D3 Cholecalciferol
- Isoflavones (Ipriflavone or Genistein)

##### Isoflavones

- High isoflavone intake associated with bone-sparing effects
- Genistein: phytoestrogen isoflavone; acts as mild SERM (selective estrogen receptor modulator)
- Dose: 50-60 mg

## References

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