Supplementation
For A Better You – A
RENEWED FOCUS
What are supplements?

- Dietary supplements are products designed to augment your daily intake of nutrients, usually the vitamins and minerals.

- A supplement may be a micronutrient, herb, enzyme or amino acids.
Factors Influencing The Need For Supplementation

- Improper Diet
  - Exercise
- Disease/Medication
- Age
- Cultural/Social practices
Benefits of Supplementation

- Prevent a disease
- Prevent burn out and fatigue
- Adjunct to medical therapy to help relieve existing disease state
- To maintain vitality and health
<table>
<thead>
<tr>
<th>Individual at Increased Risk of Drug-Nutrient Interactions</th>
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</thead>
<tbody>
<tr>
<td>✓ Patients with chronic disease – especially those with multiple comorbidities</td>
</tr>
<tr>
<td>✓ Elderly individuals</td>
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<tr>
<td>✓ Pediatric population</td>
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<tr>
<td>✓ Patients with poor or compromised nutritional status</td>
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<tr>
<td>✓ Patients with poor overall health status</td>
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<tr>
<td>✓ Pregnant women</td>
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Drug-Supplement Interactions

- Pharmacokinetic
- Pharmacodynamic

Case Example

- **Tumeric and Hepatotoxicity – Induced Autoimmune Hepatitis**
  - 76 year old Caucasian female
  - Elevation of liver transaminases post 10/12 turmeric supplementation.
  - After 2/12 discontinuation elevated liver transaminases began declining
  - Levels returned to normal after 1 year

Liver injury due to Herbal-Dietary supplements (HDS) increased from 7% to 20% ($p < 0.001$) during the study period (2004-2013).

Bodybuilding HDS caused prolonged jaundice (median 91 days) in young men but did not result in any fatalities or liver transplantation.

The remaining HDS cases presented as hepatocellular injury, predominantly in middle-aged women and more frequently led to death or transplantation compared to injury from medications (13% vs. 3%, $p < 0.05$).

Tips when recommending a supplement

- Sex
- Age
- Med Hx + Current meds + OTC/Supplementation
- Diet
- Social Hx
Safety is a complex issue determined by considering the combination of ‘likelihood’ and ‘consequence’
Cari-Med takes care of you from Pregnancy, Birth to Old age
References


Surprise Quiz!

1. List two examples of supplement category

2. State two vitamin lines that are distributed by Cari-Med

3. Identify two individuals that are at increased risk for drug-nutrient interactions
THANK YOU