

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

Individual at Increased Risk of Drug-Nutrient Interactions

5

- ✓ Patients with chronic disease – especially those with multiple comorbidities
- ✓ Elderly individuals
- ✓ Pediatric population
- ✓ Patients with poor or compromised nutritional status
- ✓ Patients with poor overall health status
- ✓ Pregnant women

Drug-Supplement Interactions

6

- ▶ Pharmacokinetic
- ▶ Pharmacodynamic

Case Example

7

- ▶ **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

Reports from the Drug-Induced Liver Injury Network (2014)

- ▶ 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**



Diabion

FLINTSTONES
VITAMINS

ONE A DAY

References

13

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- ▶ Terrie, Y. (2014). Drug---supplement interactions: patient awareness is key.
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Surprise Quiz!

14

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