

Nutritional Concerns in Older Adults

The Critical Role of Vitamin D

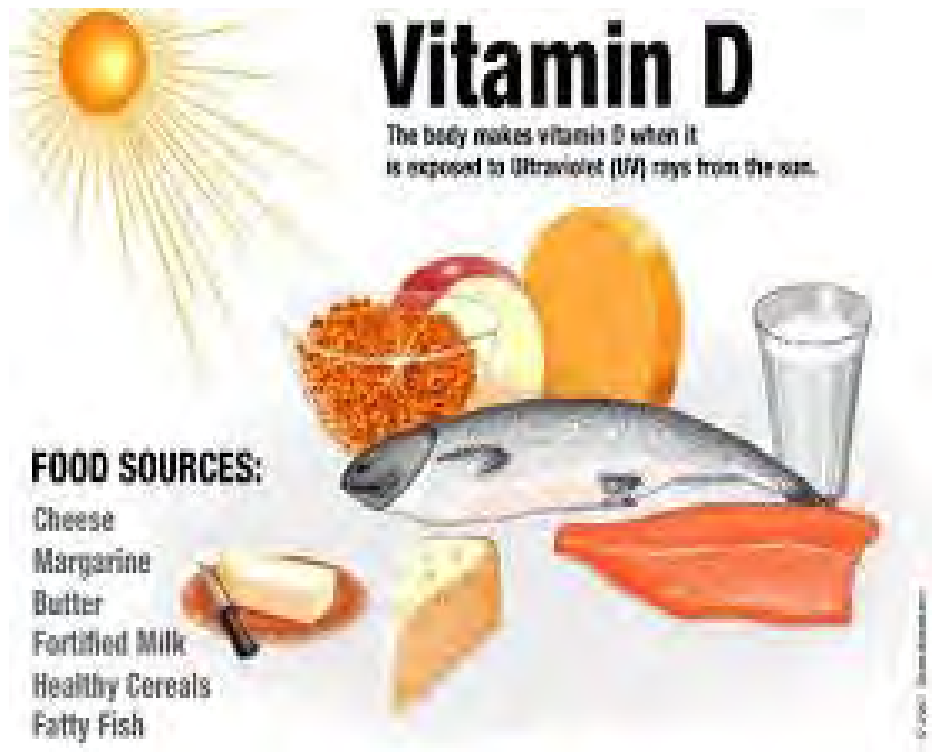
Impact of Normal Aging

- Gradual reduction in muscle mass and strength is considered a normal aging change.
- When muscle strength falls below a certain threshold, the older adult experiences muscle weakness and is at increased risk for falls and non-vertebral fractures.

The Role of Vitamin D in Muscle Function and Falls in Older Adults

- Low levels of Vitamin D are very commonly diagnosed in older adults.
- While we are all aware of the crucial importance of Vitamin D in bone remodeling, the majority of adults, even those in the health professions, may not fully understand the significant linkage between inadequate Vitamin D, muscle weakness, and falls and fractures.
- Vitamin D metabolites directly influence muscle strength and function.
- Muscle atrophy results in a feeling of heaviness in the legs, tiring easily, and difficulty rising from a chair.
- Grip strength and walking distance are also reduced in D deficiency.
- Inadequate Vitamin D levels are easily corrected by the use of supplements.

Sources of Vitamin D



Associated Risk Factors

- Deliberate avoidance of sunlight.
- Over use of high SPF sunscreens.
- Vitamin A is converted to its active form by exposure to sunlight.
- Recently Vitamin D, long viewed as a vitamin, is now classified as a hormone.

Recommended Levels of Sun Exposure

- The body requires between 30,000 and 40,000 International Units of Vitamin D daily.
- The typical Vitamin D supplements contains 2,000 units.
- So some sun exposure is needed. The recommended exposure is 20 minutes per day.

Laboratory Testing

- Vitamin D status is determined by a blood test.
- In the laboratory, the red and white blood cells are spun off of the blood sample leaving a clear yellow serum.
- The level of Vitamin D in the serum is then measured.
- Based upon lab reports of clients with low Vitamin D levels, daily supplementation resulted in improvement in muscle strength, sway, and functional abilities.



Other Health Problems Associated with Low Levels of Vitamin D

- Risk for Infections
- Cardiovascular Disease
- Depression
- Obesity
- Gastrointestinal Problems Including Crohn's Disease
- Interrupted Sleep Cycles
- Increased Risk for Multiple Sclerosis

Drug Interactions Associated with Vitamin D Therapy

- Anti-seizure medications
- Cyclosporins
- Cardiac Glycosides
- Certain anti-microbials
- Highly Active Retrovirals
- Certain herbals
- Statins
- Thiazide Diuretics
- Osteoporosis Medications
- Thyroid Hormone Antagonists
- Also, there is the potential to destabilize blood sugar levels in diabetics.

