



JUMP-STARTING YOUR VITAMIN D: PROTOCOL FOR _____ DATE _____

1. Use Biotics Research "Bio-D-Mulsion Forte" containing 2,000 IU vitamin D3 per drop.
To order: Call: 1-800-524-5183.
2. Take 4 drops of the vitamin D emulsion each day. This is equivalent to 56,000 IU/week.
3. Continue for _____ weeks.
4. Repeat a test of your vitamin D level (25-hydroxy Vitamin D) at 12 weeks.

MAINTAINING YOUR VITAMIN D LEVELS

1. Most people with limited sun exposure need 1,000-2000 IU per day.
2. Your recommended daily intake from all supplement sources (which may include multivitamins, calcium/bone, cod liver oil, etc.) is _____ IU per day.

What is vitamin D, where do I find it, and why is it important for health? Vitamin D is an essential nutrient that is manufactured in our skin upon exposure to sunlight. Total-body sun exposure provides about 10,000 IU of vitamin D per day. The only other commonly consumed, concentrated, naturally-occurring source of vitamin D is fish liver oil. The quantity of vitamin D present in fortified milk is not adequate for our needs. Vitamin D functions as a hormone and has many extremely important physiological tasks:

1. Control of bone metabolism. Without vitamin D, calcium cannot be used to build bone.
2. Modulates neurotransmitter and neurological function.
3. Helps to regulate the immune system and inflammation.
4. Helps to regulate insulin sensitivity.
5. Acts on the DNA to regulate gene transcription, particularly those that affect the control of cancer cells (e.g., cell growth, differentiation, metastasis, and angiogenesis).

How do I know if I am getting enough vitamin D? A blood test measures the storage form of vitamin D, called calcidiol (25-hydroxy vitamin D). This is a more accurate assessment of vitamin D adequacy than measuring the active, hormonal form, calcitriol (1,25 di-hydroxy vitamin D). Current research suggests the optimal calcidiol range to be between 45-65 ng/ml. Levels under 20 mg/ml are considered frankly deficient. It is important to check your serum calcium level prior to taking a high dose of Vitamin D.

How do I increase my vitamin D intake? If your blood levels of calcidiol are low, then it is important to "jump start" your vitamin D intake. Otherwise, it is difficult to increase your levels. Our protocol uses a highly absorbable, natural form of vitamin D, cholecalciferol or D3, as opposed to synthetic ergocalciferol, or D2, which comes from irradiated yeast.

Can I make my own vitamin D from the sun? Yes. However, even a SPF-8 sunscreen reduces vitamin D production by 97.5%. As cumulative sun exposure increases the risk of basal and squamous cell skin cancers, and, as sun-burn increases the risk of melanoma, use good judgment. The guidelines are to expose as much skin as possible to direct midday sunlight for 1/4 of the time it takes for your skin to turn red. This may only take a few minutes. Vitamin D production has already been maximized LONG BEFORE your skin turns pink. Further exposure does not increase your vitamin D levels, but does increase your risk of skin cancer. People with dark skin may need 5-10 times longer in the sun than light-skinned people, depending on skin type.