

## Optimizing Vitamin D Levels

Vitamin D can be obtained from three sources: food, ultraviolet light (sun and UV lamps), and supplements. Since each person's vitamin D is affected differently by sunlight, nutrient absorption from food and supplements, and mobilized body stores, there is no one-size-fits-all guideline.

### Food Sources of Vitamin D

Food (3.5 oz. unless otherwise specified)	IU per serving
High-vitamin cod liver oil (1/2 tsp.)	2,000
Indo-Pacific marlin	1,400
Herring	1,100
Fatty bluefin tuna	720
Duck egg	720
Chicken egg (pastured)	480–720
Rainbow trout	600
Eel	200–560
Mackerel	345–440
Standard cod liver oil (1 tsp.)	400
Sockeye salmon	360
Canned sardines	270
Chicken egg (conventional)	120
Pork liver	50

Food (3.5 oz. unless otherwise specified)	IU per serving
Beef liver	13.5
Chicken liver	30
Pork	28

## Sun Exposure

- As a general rule, mid-summer full-body skin exposure produces 10,000 IU in about half the time it takes your skin to turn pink. This could be just 15 minutes for pale skin types.
- At higher elevations, for darker skin colors, or with less skin exposed, much less vitamin D is produced.

## Recommended Sun Exposure by Season

- **Late fall, winter, and early spring:** Spend about half as much time as it takes for skin to turn pink outside three to seven times per week.
- **Late spring, summer, and early fall:** Spend half as much time as it takes for skin to turn pink outside at least three times per week.

## Supplementation Considerations

- Take with fat for maximum absorption.
- D3 is better absorbed than D2.
- Your dose should be adjusted according to your weight.
- Weekly or daily dosing is similarly effective.
  - Avoid monthly or semi-annual mega-doses.