



THE NEED FOR SUPPLEMENTATION

“Good food is the best medicine,” goes the saying. Yet it can be difficult to consume foods that provide the *nutrient density* and *nutrient diversity* we need each day for optimal health. Either we make poor food choices, or we try to pick healthful foods, but nutrient losses during food harvest, processing, transportation, and preparation degrade its value and undermine our best efforts. Resulting nutritional “gaps” can impact health, both short-term and long-term.

Health and disease are not black-and-white states. Barring mishap, the usual situation is not that one day you’re perfectly healthy, and the next day you die. Over the course of several decades, our bodies can go from a state of vibrant health, to tiredness, to marginal nutritional deficiency, to disease and subsequent death.

MANY FACTORS DETERMINE YOUR NUTRIENT NEEDS

No two people are alike in their nutritional needs. Members of the same family, eating the same meals, will derive different benefits from the foods served. Our personal tastes dominate much of what we consume. While one person refuses to eat green vegetables, another will prefer foods heavy in fat, and yet another may consume only a very small amount of protein. Our individual metabolism also determines the benefits we derive from food. Age, sex, physical condition, and activity levels directly affect the body’s need for nutrients and its ability to use them. Many scientists believe that these differences may play a large part in explaining why some people complain of feeling tired and sluggish while others remain vital and active.

Certain aspects of your lifestyle can increase nutrient demands. For instance, physically active people may need more antioxidants than sedentary individuals. So, too, might people who are exposed to pollution on a daily basis, who consume foods laden with fat or chemical additives, or who are under mental stress. Alcohol, medication, food additives, and water contaminants can also increase the need for certain nutrients. Smokers may benefit from more vitamin C, and coffee drinkers may want to take more B-vitamins. Dieters, on the other hand, may need more vitamin E, as avoiding fat means missing out on some of the richest sources of this vitamin. And if they eat products made with “fake fats” such as olestra, they may need to supplement with vitamins A, D, E, K, and carotenoids, as artificial fats may hinder the body’s utilization of these lipid-soluble nutrients.

TWO GOALS OF NUTRITIONAL SUPPLEMENTATION

Supplementation can go a long way toward filling nutritional gaps created by suboptimal diets and impacting your quality of life. Nutritional supplementation has two goals:

1. Providing nutrients in amounts sufficient to *prevent or correct deficiency symptoms*.

2. Providing nutrients in amounts necessary for supporting *optimal health*.

In other words, supplementation can give your body what it needs to survive *and* thrive!

THE RDA TO SURVIVE: PREVENTING NUTRIENT DEFICIENCIES

The **Recommended Dietary Allowance (RDA)** is the amount of a vitamin or mineral necessary to prevent the appearance of deficiency symptoms in healthy people. Nutrient deficiencies may cause cells to slow their various critical activities until they either receive proper nutrition or die. As cells decline or die, various tissues and organs slowly begin to degenerate.

When we consume fewer nutrients than our bodies need, supplements can help fill immediate gaps, such as the greater demand for nutrients during physical activity. Or, taken over time, supplements can correct deficiencies. But just as the symptoms of long-term deficiency do not appear overnight, nor can they be corrected immediately. It can take weeks or even months before the full benefits of supplementation are achieved.

Dietary gaps have definite health consequences. Some consequences are unalterable — for example, birth defects resulting from insufficient intake of folic acid during pregnancy. Others create conditions which may or may not be corrected, which can significantly impact the quality of life. Even deficiencies of substances which have no established RDAs, such as omega-3 fatty acids and bioactive phytonutrients (plant nutrients that have activity in the body), may tip the body’s balance away from health and toward disease.

For most people, just consuming the RDA is a challenge. As we have seen, suboptimal intakes are not rare; they’re very common. And certain populations are particularly at risk for nutritional deficiencies — women (especially those who are pregnant or breastfeeding), the elderly, children (especially those from low-income families), high school and college students, smokers, dieters, etc.

Compounding the problem, the current RDAs may be too low for many nutrients. For instance, scientists once thought people needed only 60 mg of vitamin C to prevent any signs of deficiency, but new data provides strong evidence to support raising the RDA to 200 mg. In 1996, RDAs were approved for six nutrients: vitamin K, selenium, manganese, chromium, molybdenum, and chloride. Research had shown benefits for these nutrients long before the government designated their RDAs.



THE ODI TO THRIVE: BEYOND DEFICIENCY AND TOWARD OPTIMAL HEALTH

While deficiency symptoms can be corrected by supplying the scarce nutrients, many scientists believe that optimal health results when certain nutrients are consumed in amounts exceeding the RDA. According to Nobel laureate Linus Pauling: *“The RDA for a vitamin is not the allowance that leads to the best health for most people. It is, instead, only the estimated amount that for most people would prevent death or serious illness from overt vitamin deficiency. Values of the daily intake of the various vitamins that lead to the best health for most people may well be several times as great, for the various vitamins, as the values of the RDA.”*

The concept of the RDA may be outdated. A new concept, one that GNLD scientists pioneered in the 1970s, has been gaining wide acceptance in the scientific community: The idea is to consume nutrients at levels which a consensus of scientific studies have shown promote optimal health and vitality. That level of intake is referred to as the **Optimal Daily Intake (ODI)**. For many nutrients, the ODI is much greater than the RDA.










For millions of people, greater-than-RDA nutrient intake may significantly enhance the quality of life. Several studies indicate that not only does calcium at greater-than-RDA levels prevent osteoporosis (thinning of the bones); it also helps *rebuild* bone, especially in conjunction with estrogen-replacement therapy and weight-bearing exercise. Similarly, strong scientific support shows that greater-than-RDA amounts of vitamin E, the major lipid-soluble antioxidant in all cellular membranes, and carotenoids, healthful phytonutrients for which no RDA has yet been established, enhance immune function and help prevent cardiovascular disease. Likewise, at levels twice the RDA, folic acid, a B-vitamin, has been shown to help clear the blood of homocysteine, a natural metabolic byproduct that damages arteries when it accumulates. In addition, essential omega-3 fatty acids, which have no RDA, have been shown to be necessary for optimal function of brains and eyes in infants. And research indicates that vitamins C and E and selenium, probably through their function as antioxidants, may promote optimal health when consumed in amounts greater than the RDA. The exceptions are vitamins A and D, which should not be consumed in greater-than-RDA amounts, as these vitamins can be toxic at high levels.

GREATER-THAN-RDA NUTRIENT INTAKES MAY PROMOTE OPTIMAL HEALTH

As scientists continue to suggest optimal nutrient intakes, the gap between ideal and actual intakes will widen. In many cases the ODI will be several times the current RDA, and the only possible means of attaining those levels will be supplements.

Vitamin E is a classic example: Numerous studies show that the RDA of 30 I.U. is too low to defend the body from oxidants and other free radicals or to provide the maximum health benefit.

Many scientists now believe the Optimal Daily Intake for vitamin E is likely in the range of 100-600 I.U. per day for healthy people. It is nearly impossible to get this amount of vitamin E just from the foods you eat! Even from the richest vitamin E sources, just to get the RDA (30 I.U.) you'd have to eat:

FOOD	AMOUNT NEEDED	CALORIES
Spinach 	2.5 pounds	297 calories
Safflower oil 	3.5 tablespoons	433 calories
Mayonnaise 	11 tablespoons	600 calories
Wheat germ 	6 ounces	670 calories
Peanut butter 	12 ounces	2,036 calories
Butter 	2 pounds	6,546 calories
Whole-wheat bread 	124 slices	6,870 calories
Beef liver (broiled) 	7 pounds	6,966 calories
Eggs 	8 dozen	7,238 calories

Besides being nutrient-dense, a healthy diet is also nutrient-diverse. In vitamin E, you want more than just alpha-tocopherol; you want the eight different bioactive tocopherols and tocotrienols found in vitamin E-rich food. Rather than just beta-carotene, you would want the diverse benefits of the other 50 to 60 carotenoid “family members” existing in the food supply. The same is true with flavonoids, cruciferous compounds, and other healthful nutrients: When it comes to the diet, variety is better for you than the same old things you’re used to.

Virtually everyone can benefit from supplementation, which can help provide the nutrient density and diversity shown to support optimal health. If you’re going to take supplements to take charge of your health, GNLD’s are *simply the best!* Based in Nature and backed by Science since 1958, GNLD supplements are a world-renowned “gold standard” for nutritional excellence.