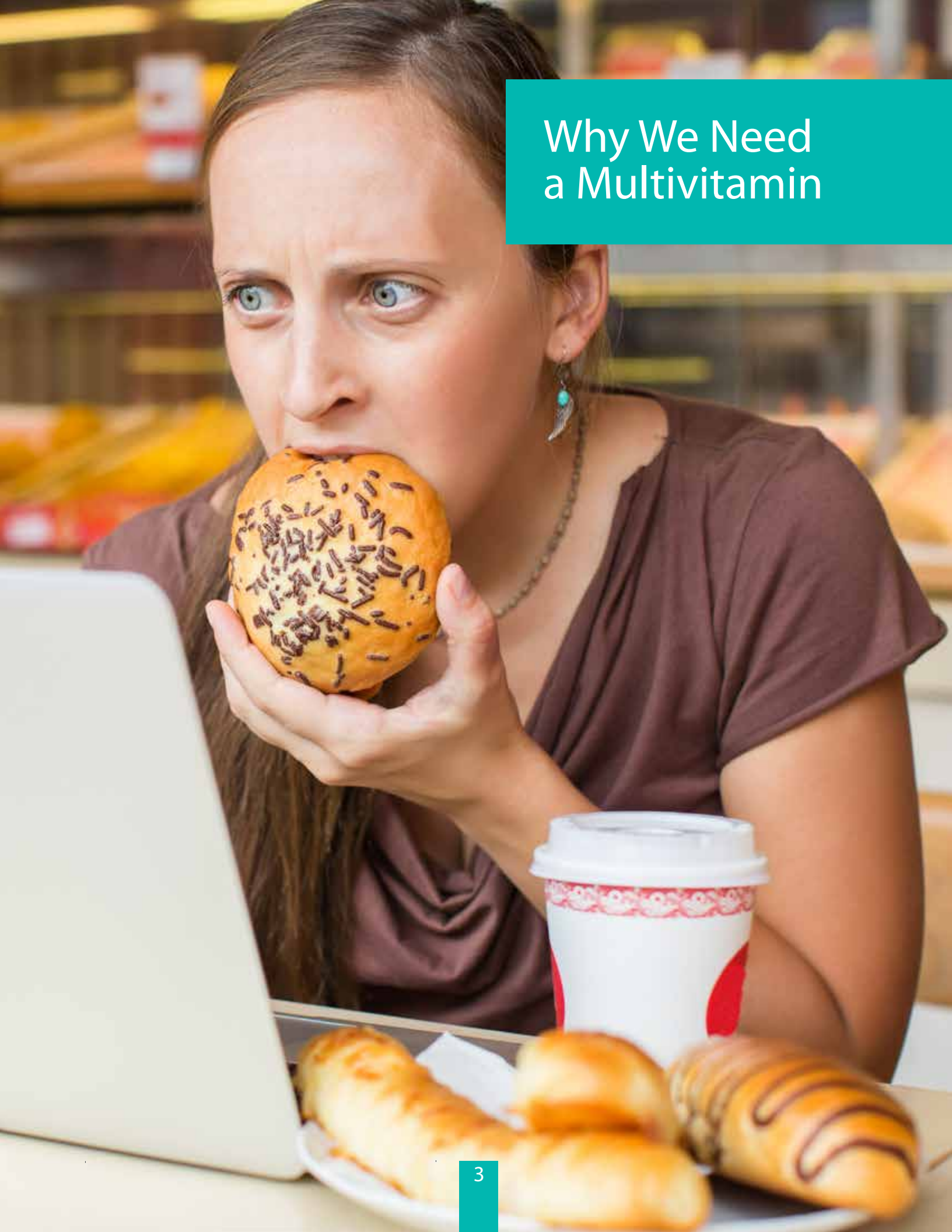
LifeExtension®
Stay Healthy, Live Better

Are You Taking the **Right Multivitamin?**

By Life Extension®

Table of Contents



Why We Need a Multivitamin

Life Extension® customers commonly say to us: **"I eat a pretty healthy diet. Do I really need to take a multivitamin?"** And our answer is always a resounding "Yes!" Why? Because there are many reasons even the healthiest diets can fall short of supplying the optimal amount of nutrients you need not just to survive, but to thrive!

Inadequate Fruit and Vegetable Intake

It's no secret that fruits and vegetables are some of the healthiest foods on earth. Your risk of getting just about any disease you can think of — cancer, heart disease, diabetes, you name it — goes down the more plants you eat. For this reason, the U.S. government has tried to encourage Americans to eat more fruits and veggies for decades.

A sample menu for someone trying to meet the USDA recommendation for fruits and vegetables looks like this: 1/2 cup of blueberries with breakfast, 2 cups of salad greens and ½ cup of cucumber with lunch, a snack of 1 small apple and 16 grapes, and dinner accompanied by 1 medium carrot and 1 small red bell pepper.

Realistically, how often do you eat like that?

We can't answer for you personally, but we can share an eye-opening statistic with you. According to a recently published study, only 11 percent of Americans meet the USDA guidelines for fruit and vegetable consumption.[1]

The Nutritional Decline of Food

Donald R. Davis, a former research associate with the Biochemical Institute at the University of Texas, compiled and analyzed the results of three studies documenting nutrient declines in different groups of vegetables and fruits over the past 50 to 70 years.

What he found was shocking: ***"In each study, about half of the studied nutrients showed large enough declines to be statistically significant,"*** said Dr. Davis in an interview.[2]

This implies that a tomato today is not the same as a tomato a few decades ago. So, even if you decide to increase your fruit and vegetable intake, it's probably not enough to optimize your nutrient intake.

The Standard American Lifestyle — Go, Go, Go!

Today's 24-hour, information-saturated, digitally connected way of living is a recipe for chronic stress. We are faced with constant demands, all of which have to be addressed ***"right now."***

Stress may seem insignificant. But it's killing us — literally. A landmark study published in the Journal of the American Medical Association in 1999 found a link between chronic stress and a higher risk of mortality in older adults.[3] In other words, stressedout folks were more likely to die than their relaxed peers.

Chronic stress is a ***"nutritional"*** drain on our bodies. The go, go, go lifestyle requires a daily boost of nutrients. But if our food is nutrient-poor and we're really not eating enough fruits and vegetables anyway, how are we going to refill nutritionally?

Refill with a Daily Multivitamin

Supplementing with a daily multivitamin can bridge the nutritional gap caused by our inadequate diet, nutrient-poor food, and harried lifestyle. It really is the best way we know to combat the problems we discussed.

But now we're left with this question: Are all multivitamins the same? We believe that they're not. Next, learn how to choose a high-quality multivitamin that actually will refill our bodies nutritionally.

Overfed and Undernourished

Americans consume a lot of calories, but we're not getting enough vitamins and minerals necessary to stay healthy. That's because the food we're eating is calorie dense, but not nutrient dense! We are overfed and yet undernourished.

In 2005, the U.S. Department of Agriculture (USDA) issued a report analyzing the adequacy of nutrient intake from food alone in the United States. The percentages of Americans with inadequate nutrient intake from food are shocking and highlight the need to supplement to ensure optimal nutrition:

- 93% of Americans have an inadequate intake of vitamin E.
- 56% of Americans have an inadequate intake of magnesium.
- 44% of Americans have an inadequate intake of vitamin A.
- 31% of Americans have an inadequate intake of vitamin C.
- 14% of Americans have an inadequate intake of vitamin B6.
- 12% of Americans have an inadequate intake of zinc.
- 8% of Americans have an inadequate intake of folate.

A government study clearly shows that we fall short of obtaining the minimal requirements of several important vitamins and minerals.

https://www.ars.usda.gov/SP2UserFiles/Place/80400530/pdf/0102/usualintaketables2001-02.pdf

Food Sources of Vitamins

A Vitamin

B Vitamin

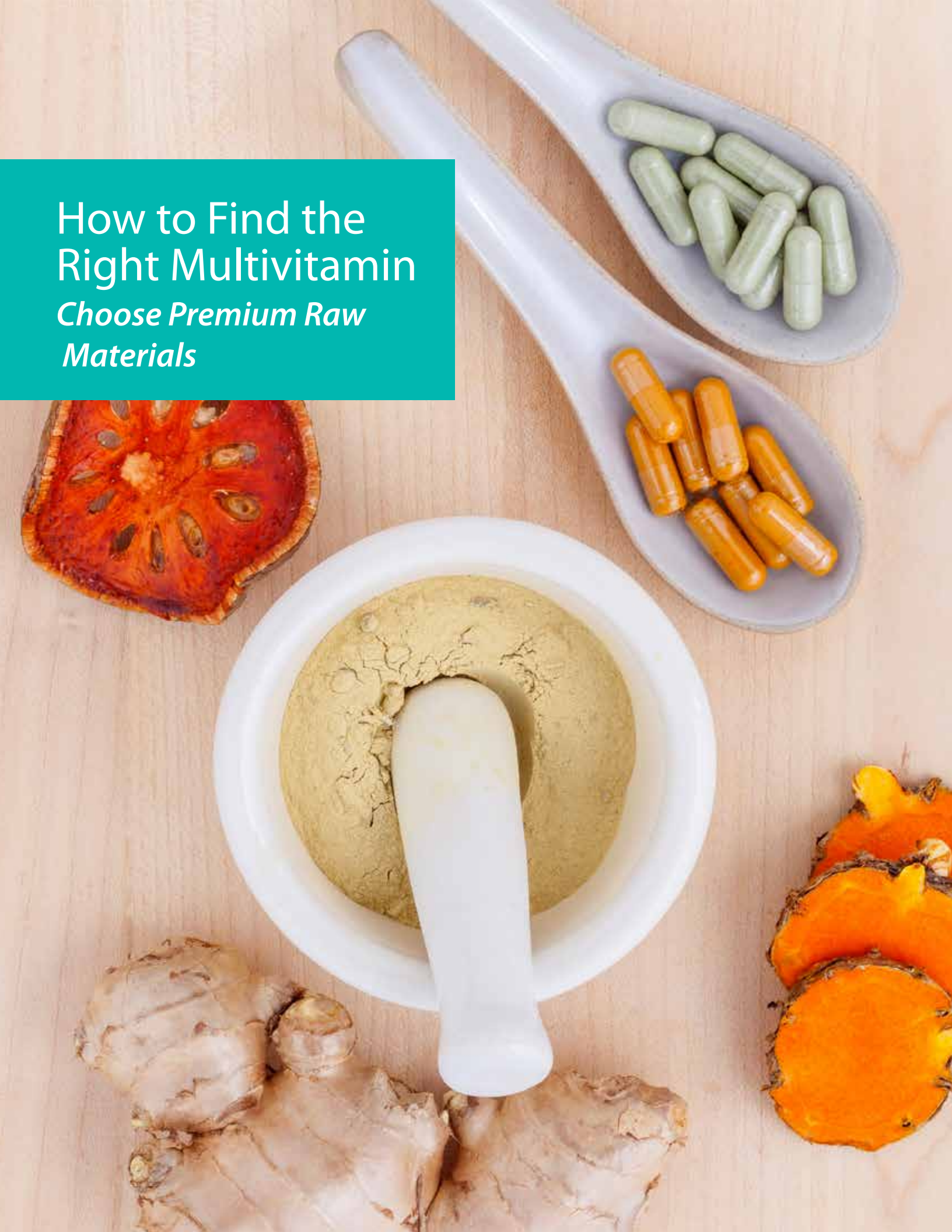
C Vitamin

D Vitamin

E Vitamin

K Vitamin

https://www.ars.usda.gov/SP2UserFiles/Place/80400530/pdf/0102/usualintaketables2001-02.pdf



How to Find the Right Multivitamin

Choose Premium Raw Materials

Finding a high quality multivitamin is not hard, but it does take some effort. It's worth it though, as we're talking about our health.

Honestly, some of us probably spend more time choosing a cell phone plan than we do supplements. However, allocating just a little bit of that time to finding a quality multivitamin could pay big dividends in the future.

The first step is to identify multivitamins that are sourced from premium raw materials.

Choose Multivitamins made from Premium Raw Materials

The raw materials are the sources of the vitamins and minerals that end up in the final product. The sources can range from plants and herbs to animals and even chemistry labs. Not only that, the raw materials can come from around the world, including the United States, Germany, India, and China — to name a few.

The only way to know if a multivitamin is manufactured with premium raw materials is to inquire about how a company tests the raw materials to determine if they're good enough for their product.

It's best if they have various tests for ingredient identity, purity, and potency in place. These tests are important to ensuring that the material is exactly what it's supposed to be and that it isn't contaminated with outside materials, microbes, or heavy metals.

Companies that have these tests in place are usually more than happy to share this information with you.

How to Find the Right Multivitamin

Look for Ingredients Validated by Research

In addition to premium raw materials, you want to make sure that the forms and doses of the vitamins and minerals are the same as what has shown to be beneficial in research studies.

Look for Ingredients Validated by Research

Companies that use research-backed ingredients and doses will usually have the study references in their product descriptions or readily available for you to see. First thing to do is check the product's web page description. If the company manufactured the multivitamin using research-based ingredients and doses, you should see references listed toward the end of the page.

If you can't easily find the study references supporting the product, then you'll have to call the company. Just ask for a list of references that support the product, the ingredients, and the doses.

How to Find the Right Multivitamin

Third-Party Certifications Matter

Having an independent or third-party certification assures you that the company is truthfully adhering to strict quality standards (and not just telling you that they are).

Third-Party Certifications Matter

Programs such as NSF International regularly evaluate companies under third-party certification programs to make sure that they're consistently meeting the highest standards of good practices for quality assurance and control.

One of these programs, Good Manufacturing Practice (GMP), is now required by law. GMP requires companies to be audited twice a year to assess facility cleanliness and sanitation, as well as the quality of systems like documentation of complaints and returns (so that any issues can be fixed properly), training, as well as product label accuracy.

Before buying, ask the supplement company if they're third-party certified. A company doesn't need to have all the certifications, but here's a list of some certifications to look for:

- NSF International
- Good Manufacturing Practices (GMP)
- International Fish Oil Standards (IFOS™)
- American National Standards Institute
- Dietary Supplement Verification Program
- National Nutritional Foods Association

How to Find the Right Multivitamin

Request a Certificate of Analysis

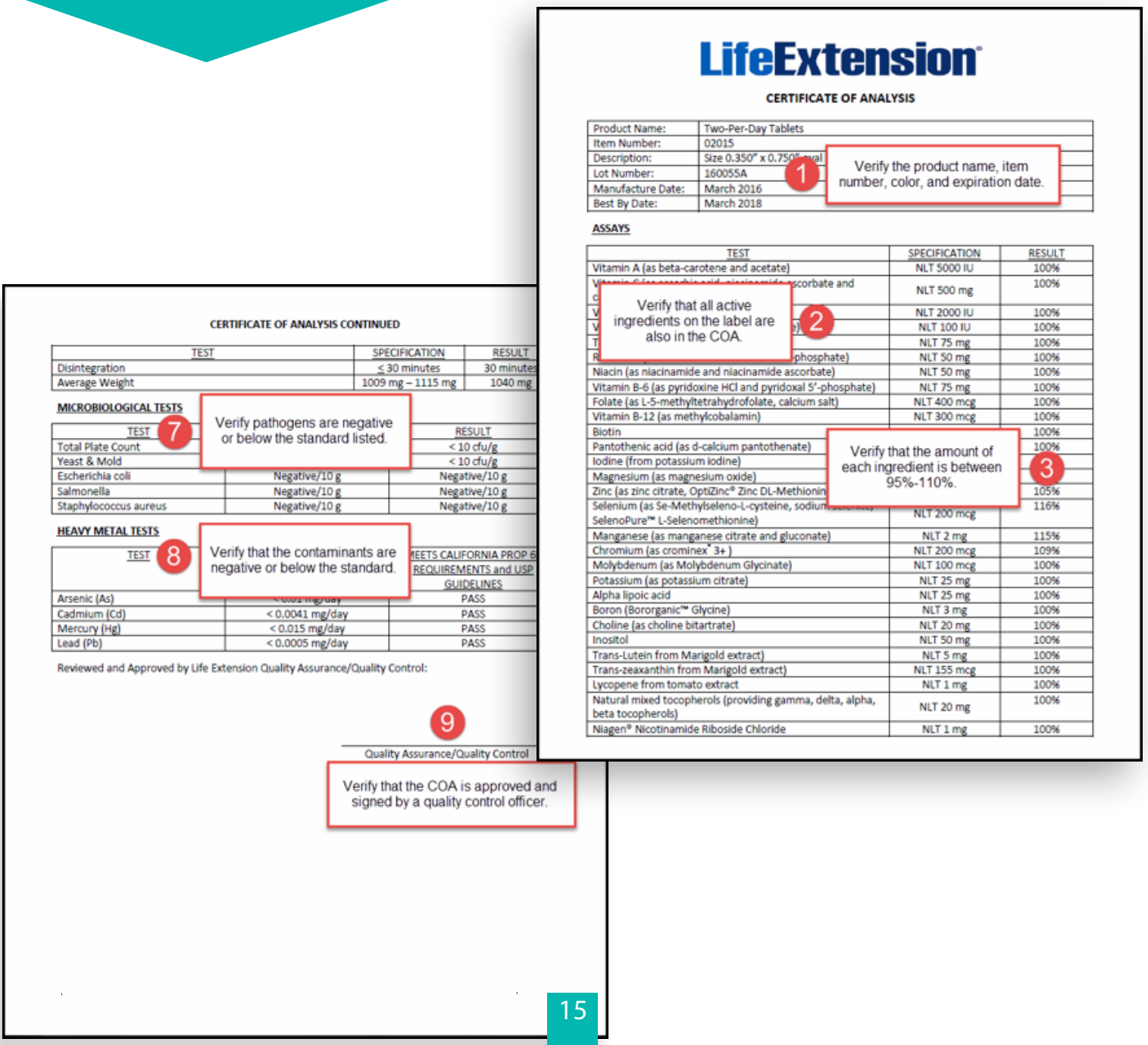
Many companies tout their purity and potency with claims in their marketing literature, but how can you verify those claims? Request a certificate of analysis (COA) from the company.

Request a Certificate of Analysis

A certificate of analysis (COA) is a certified document that covers everything from capsule size, fill color, lot number, and manufacture date to testing results for purity, potency, microbes, and heavy metals.

If a company cannot, or will not, provide you with a COA for a multivitamin, this should raise a big red flag! You'll probably want to keep shopping.

Here's an example of a COA from Life Extension with the steps to follow when analyzing it:



Do you need a gender- or age-specific multivitamin?

Simply, no.

Companies that market those types of supplements usually add low amounts of ingredients like lycopene for men's prostate support or black cohosh for menopausal support. They then market them as a ***"multivitamin for men"*** or a ***"multivitamin for women."***

With the exception of specific conditions, like menstruation or pregnancy, there's really no such thing as a gender- or age-specific nutrient. We all need lycopene at all stages of life. And although an ingredient like black cohosh is traditionally used for menopausal symptoms, adding a little bit into a multivitamin really isn't enough to call it a female menopausal product.

An excerpt from the Centrum® website describes their Centrum® Women multivitamin this way:

Centrum® Women is personalized for women and helps support energy, immunity, and metabolism. Additionally, this multivitamin contains nutrients to help women maintain a healthy appearance and contains higher levels of vitamin D for strong bones.*

Don't we all want more energy, stronger immunity, and better metabolism? We're pretty sure that all of us want stronger bones, right? Well, the nutrients that support energy, immunity, metabolism, and bones are the same regardless of gender.

***www.centrum.com/centrum-women**

Ideal Daily Intake …

Going beyond the RDI

Not all multivitamins are the same. There are your basic, bare-bones multivitamins that provide minimal doses of some essential nutrients. And then there are your robust multivitamins that deliver ideal doses of a full spectrum of essential nutrients.

What is the main difference between these multiples? Dosage. The first type is based on the government's "recommended daily intake," or RDI (which you'll see on labels as %DV, or daily value), and the second reflects what we call the ***"ideal daily intake,"*** or IDI.

The RDI is a dosing system that aims to prevent diseases of vitamin and mineral deficiencies. It was developed as an update to the original dosing system labeled the RDA, or ***"recommended dietary allowance."***

The RDA was developed during World War II by the U.S. National Academy of Sciences (NAS) in response to food rationing. The NAS created a committee to answer questions such as: How much vitamin D is necessary to prevent rickets? How much vitamin C is needed to prevent scurvy?

The problem with the RDA and the RDI is that they have nothing to do with actually treating diseases and optimizing health. They were meant to prevent conditions like scurvy or prevent depletion of the nutrient from the body, and that's what they do. And nothing else, really.

What if, instead of RDAs and RDIs, we promoted IDIs — ideal daily intakes of vitamins and minerals that far exceed expectations set forth by the U.S. government because they are all about optimizing health.

Dosing vitamins and minerals at this level goes way beyond protection against deficiencies. It enters the world of optimizing energy levels, hormonal balance, cardiovascular wellness, bone strength, digestive ease, visual acuity, cognitive agility, emotional stability, and joint integrity.

Big-name multivitamins are dosed at the RDI, sometimes a little more and sometimes even a little less. This is how they keep their products cheap — and pretty much ineffective for anything but preventing deficiencies. It's better to choose a multivitamin that's formulated using the IDI. Below is a chart of common vitamins and minerals comparing the RDA/RDI to the IDI. Use this chart as you shop for a multivitamin.

Vitamin and Minerals	Averages of RDA and RDI	IDI
Vitamin A (90% beta-carotene)	900-5000 IU	5000 IU
Vitamin B1	1.5 mg	125 mg
Vitamin B2	1.5 mg	50 mg
Vitamin B3	20 mg	190 mg
Vitamin B6	2 mg	100 mg
Vitamin B12	6 mcg	600 mcg
Vitamin C	100 mg	2000 mg
Vitamin D3	400 IU	2000 IU
Vitamin E	30 IU	100 IU
Chromium	25 mcg	500 mcg
Folate	400 mcg	400 mcg
Magnesium	400 mg	400 mg
Selenium	55 mg	200 mcg
Zinc	15 mg	35 mg

Expect your multivitamin to go beyond the recommended daily intake and demand optimization of your health with ideal daily intakes.

Whole-body Benefits of Vitamins and Minerals

Brain
B Vitamins
Magnesium
Vitamin D

Hair
B Vitamins, particularly Biotin
Vitamin E Tocotrienols
Zinc

Heart and Blood Vessels
Magnesium
Potassium
Vitamin C

Lungs
Vitamin A
Vitamin D
Vitamin B6

Digestive
B Vitamins
Zinc
Chloride (HCL)

Liver
Vitamin E
B Vitamins
Vitamin D

Joints
Boron
Vitamin K
Vitamin D

Muscles
Magnesium
Calcium
Potassium

Kidneys and Bladder
Vitamin D
Magnesium
Vitamin E

Bones
Vitamin D
Vitamin K
Calcium

Skin
B Vitamins
Vitamin A
Vitamin E

Immune
Vitamin C
Vitamin D
Zinc

www.health.harvard.edu/staying-healthy/listing_of_vitamins

Appendix of Nutrients

The dose listed for each nutrient is the average ideal dose that you should look for in a multivitamin. However, the dose listed is not necessarily the total daily amount of a nutrient you need. For example, the Institute of Medicine recommends 4,700 mg/day of potassium for adults. And since most adults get plenty of it from their diet, an ideal dose in a multivitamin is only 25 mg/day.

B-Complex

B vitamins are essential for healthy cell growth and repair and cell energy production from fats, carbohydrates, and protein. They support healthy nerve function, a healthy cardiovascular system, and can protect the body from the damaging effects of excess sugar.
Average ideal dose: Usually dosed as B-50, B-75, or B-100 if a stand-alone product. See "vitamins" for ideal doses of various B vitamins.

Biotin

Supports the health of the skin, nerves, digestive tract, metabolism, and cells. Biotin may also help to treat some types of nerve pathology, such as the peripheral neuropathy that can result from kidney failure or diabetes.
Average ideal dose: 300 mcg.

Boron

A mineral with several functions, including optimizing calcium metabolism for healthy bones and joints, supports steroid hormone levels, and supports a healthy prostate.
Average ideal dose: 3 mg/day.

Chromiu

A mineral that plays an important role in maintaining healthy blood sugar levels. Chromium is recognized by the FDA as a treatment for type 2 diabetes.
Average ideal dose: 200 mcg/day.

Folate

See Methylfolate

Inositol

A primary component of cellular membrane phospholipids and involved in a number of biological processes. Inositol has been found to be essential for calcium and insulin signal transduction, and serotonin-activity modulation. Research indicates inositol is beneficial for stabilizing moods.
Average ideal dose: 50 mg/day.

Iodine

A health-promoting trace element essential for life. Its primary biological role lies in the production of the thyroid hormones. It's a natural antibiotic and helps promote healthy breast tissue.
Average ideal dose: 150 mcg/day.

Magnesium

A mineral used in hundreds of metabolic reactions and that influences many body systems, including healthy bone mineralization, muscle contractions, heart rhythm, and nerve function.
Average ideal dose: 100 mg/day.

Manganese

A mineral that's required by the body for proper enzyme functioning, nutrient absorption, wound healing, and bone development.
Average ideal dose: 2 mg/day.

Methylfolate

Methylfolate is the active form of folic acid. It's involved in neurotransmitter synthesis and critical enzymatic reactions throughout the body. Many generic multivitamins don't include this form.
Average ideal dose: 400 mcg/day.

Molybdenum

A metallic element that aids in the metabolism of fats and carbohydrates.
Average ideal dose: 100 mcg/day.

Potassium

A mineral that the body needs to work normally. It helps nerves and muscles communicate. It also helps move nutrients into cells and waste products out of cells.
Average ideal dose: 25 mg/day.

Selenium

A mineral that supports a healthy thyroid gland and immune system.
Average ideal dose: 200 mcg/day.

Vitamin A (as Beta-Carotene)

A potent antioxidant and a precursor to vitamin A. It is essential for growth and reproduction, maintaining healthy vision, and supporting protein synthesis and cell differentiation.
Average ideal dose: 5,000 IU/day.

Vitamin B1 (Thiamine)

See B-complex.
Average ideal dose: 75 mg/day.

Vitamin B2 (Riboflavin)

See B-complex.
Average ideal dose: 50 mg/day.

Vitamin B3 (Niacin)

See B-complex.
Average ideal dose: 50 mg/day.

Vitamin B6

See B-complex.
Average ideal dose:Average ideal dose: 300 mcg/day.

Vitamin C

Protects against immune system deficiencies, cardiovascular disease, prenatal health problems, eye disease, and even skin wrinkling.
Average ideal dose: 500 mg/day.

Vitamin D

Research has shown that almost every cell in the human body uses vitamin D. It's involved in hundreds if not thousands of biological reactions including bone mineralization, cardiovascular support, immune modulation, and cell growth and repair.
Average ideal dose: 2000 IU/day.

Vitamin E

Maintains cell membrane integrity and reduces cellular aging, acts as a free radical scavenger, maintains healthy platelet aggregation, promotes a healthy nervous system and retina of the eye, maintains healthy cognitive function, and enhances immune function.
Average ideal dose: 100 IU/day.

Zinc

A mineral that improves immune function and supports cognition, wound healing, and fertility.
Average ideal dose: 30 mg/day.

References

1. Am J Prev Med 2007 Apr;32(4):257–63.
2. Whole Foods Magazine July, 2006.www.drpasswater.com/nutrition_library/davis_2.html.
3. JAMA 1999 Dec;282(23):2259–2260.