



FUEL OR FAD?

The Facts on the Top 8 Over-the-Counter Supplements

Which shake is best for you?

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Agenda

The Top 8 Over-the-Counter Supplements: Multivitamins, Vitamin D, Omega-3 Fatty Acids, Calcium, Iron, Magnesium, Fish Oil, Probiotics.

- What to take?

- How much?

- Cautions and side effects

What you should know when choosing a meal replacement or supplement shake.

- The Pro's and Con's

- Which shake is best for my health conditions or age?



THE MOST POPULAR OVER- THE-COUNTER SUPPLEMENTS



Multivitamins

Multivitamins offer a broad range of essential nutrients.

They contain a blend of different vitamins and minerals.

Their purpose is to provide these vitamins and minerals to those who may not be getting enough of these in their diet.

They typically contain Vitamins A, B, C, D and E, as well as various amounts of calcium, iron, magnesium and zinc.

Multivitamins are not a replacement for a healthy diet, but are intended to supplement a healthy diet.



Multivitamins – Which one to take?

The ingredient label of the multivitamin will show you the %DV (or percent of the daily value that is recommended for each nutrient).

Some multivitamins may contain higher amounts of some vitamins or minerals than what is typically recommended.



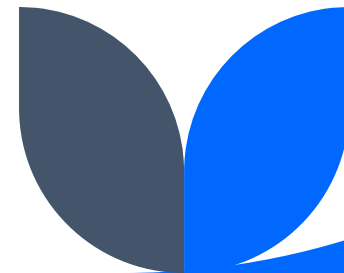
Choosing a Multivitamin

First, look at the % Daily Value.

- Choose one that is close to providing 100% DV of the ingredients. For some minerals, it is not possible to provide close to 100% DV in just one tablet (examples: calcium, magnesium, potassium), so just compare products. If it goes above 100% DV, that may actually be harmful, as some of these can build up over time.

Next, look for the USP seal.

- This ensures that the listed ingredients and the indicated amounts are accurate and safe.



Choosing a Multivitamin

Choose one that is aimed at your gender or age group.

Finally, look at the 5 most important:

- Calcium, Magnesium, Vitamin D, Potassium and Fiber.
- These are the 5 most common nutrients that Americans most often don't get enough of in their diet.

Finally, consider your individual health goals.



Top 5 Multivitamins

Centrum Silver – age 50 and over

Nature Made for Her – women age 50 and over

Nature Made for Him – men age 50 and over

Garden of Life 0 non-GMO, gluten-free, Kosher, no artificial additives

Nordic Naturals Men's

Multivitamins – Side Effects

Vitamins higher in iron can cause stomach upset – nausea, vomiting, constipation, or diarrhea.

Vitamins higher in biotin can cause acne.

Other possible side effects – headaches, nosebleeds, unpleasant taste, insomnia.

Symptoms of vitamin overdose: bone/joint/muscle pain, cloudy urine, dry/cracked lips or skin, headache, irregular/rapid heart beat, mood changes, nausea, vomiting.



Vitamin D

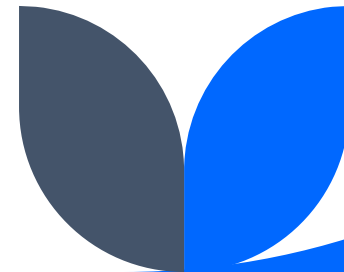
Helps your body absorb calcium and phosphorus.

Aids your immune system.

Helps maintain muscle strength.

Few foods naturally have Vitamin D in them. Most of the Vitamin D in American diets comes from fortified foods, like milk, yogurt, cereal.

We make our own Vitamin D when our skin is exposed to the sun. As we age, though, our ability to do this decreases.



Vitamin D2 or D3 – Which one to take?

D2 = ergocalciferol

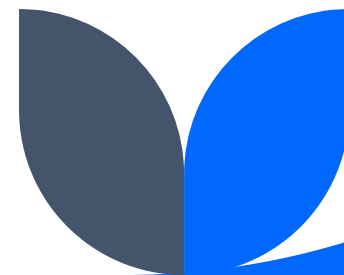
D3 = cholecalciferol

D2 comes from plants and fungi and fortified foods. (More suitable for vegetarians and vegans.)

D3 comes from exposure to sunlight and animal-based foods.

D3 can raise the D level higher and for longer than D2.

All forms are fat-soluble and so best absorbed with a meal or snack that includes some fat.



Vitamin D – How Much?

Amount is listed in both micrograms (mcg) and International Units (IU).

RDA: age 19-70 – 600 IU

age 71 and above – 800 IU

It is possible to get too much Vitamin D. This can cause nausea/vomiting, muscle weakness, confusion, even kidney failure or irregular heartbeat.

Daily upper limit age 19 and above – 4000 IU.



Omega-3 Fatty Acids

An essential, Unsaturated fat that the body cannot produce on its own.

We must obtain it from our diet or supplements.

Important for brain health and heart health. Also supports eye health.

Proven to lower triglycerides and reduce the risk of heart disease and stroke.

May help protect against age-related cognitive decline.

Reduces inflammation.

Food sources: seafood (salmon, mackerel, sardines, tuna, herring), flaxseeds, chia seeds, walnuts, soybean oil, canola oil.

Minimum dose of 250 mg; Maximum dose of 4000 mg



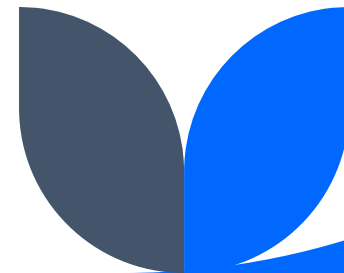
Omega-3's versus Fish Oil?

Fish oil is one specific source of Omega-3 fatty acids.

Omega-3's encompass a wider group of fatty acids.

Omega-3 is the nutrient, whereas fish oil is one source of that nutrient.

Eating fatty fish twice weekly is the best source of omega-3's.



Omega-3's and Fish Oils - Side Effects

Fishy burps, bad breath

Digestive issues

Interact with blood-thinners (increases risk of bleeding)



Calcium

Crucial for bone health.

Can help lower blood pressure.

Supplements are generally only needed when dietary intake is insufficient.

Best dietary sources are dairy, leafy greens, and fortified foods.



Calcium – Which One to take?

Two most common are calcium carbonate and calcium citrate.

Carbonate is cheaper but citrate is absorbed better.

Calcium carbonate is better absorbed when taken with food.

Calcium citrate is better absorbed on an empty stomach.

Take no more than 500-600 mg ELEMENTAL CALCIUM at a time for best absorption. If need more, then split the doses up during the day.

Recommended dose:

Men: 51-70 yrs: 1000 mg, 71 yrs and older: 1200 mg

Women: 19-50 yrs: 1000 mg, 51 yrs and older: 1200 mg



Calcium – Side Effects

Gas

Bloating

Constipation

Try switching to a different form if any of these are bothersome.

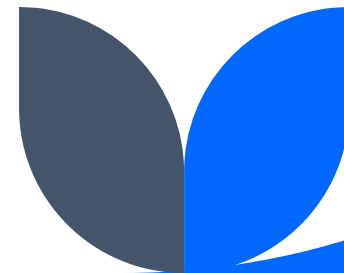
Take at a different time than multivitamins.

Excess calcium can increase the risk of kidney stones.

Iron

Iron is vital for making red blood cells, which carry oxygen throughout the body.

Supplements are really only needed if you are deficient in iron or anemic.



Iron – Which one to take?

Ferrous Sulfate – most common, better absorbed

Ferrous Gluconate – lower iron content, but better tolerated, more gentle on stomach

Ferrous fumarate – highest iron content, better tolerated by children



Iron – Side Effects

Nausea, constipation, diarrhea, stomach cramps

Calcium-rich foods, antacids, and certain antibiotics can interfere with iron absorption.

Best to take on an empty stomach unless causes stomach upset.

Vitamin C enhances absorption.



Magnesium

Promote muscle function, reduces muscle cramps and spasms.

Regulates sleep hormones, helps with sleep disturbances.

Reduces blood pressure, particularly in those with hypertension.

Help regulate blood glucose by improving insulin sensitivity and helping glucose metabolism.

Helps with bone health, both formation and density.

May reduce the frequency and severity of migraines.

Involved in neurotransmitter function and so may help with mood or anxiety.



Magnesium – Which one to take?

Magnesium Citrate – laxative, used for constipation

Magnesium glycinate – improves sleep, reduces anxiety

Magnesium Oxide – used for constipation and indigestion

Magnesium chloride – general supplementation

Magnesium sulfate – general supplementation

Maximum recommended dose is 420 mg for males and 350 mg for females (elemental).



Magnesium – Side Effects

Diarrhea (especially magnesium oxide)

Nausea/abdominal cramps

Interacts with thyroid medications

Toxic amounts can dangerously lower blood pressure and slow breathing.



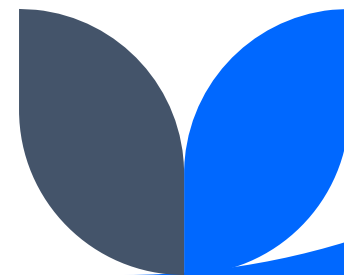
Probiotics

Live bacteria and yeasts that boost immunity and aid in digestion.

These species already live in our body. Supplements just add to our existing supply.

Stress and food choices can diminish our gut microbiome. Probiotics restore it.

A healthy gut not only improves your immune system, it can also reduce inflammation.



Probiotics – Which one to take?

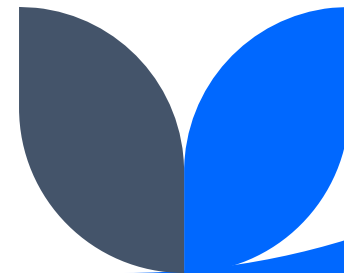
Lactobacillus – L. acidophilus

Bifidobacterium – B. longum, B. breve

Saccharomyces boulardii – a type of yeast

Also can be found in yogurt, cottage cheese, sauerkraut, pickle juice.

Look for at least 1 billion CFU's (Colony Forming Units).



Probiotics – Side Effects

Allergic reactions

GI discomfort (bloating, gas, diarrhea, constipation)

Can increase GI gas production, especially initially.

Can cause infection if immunocompromised.



Meal Replacement and Supplement Shakes



Meal Replacement versus Supplement Shakes

Meal Replacement shakes are intended to replace a meal and provide balanced nutrition with a mixture of protein, carbs, fats, vitamins and minerals.

Protein shakes focus mainly on protein, and have fewer carbs and fats, and likely no vitamins and minerals. These are meant to be a supplement to your diet.



Meal Replacement Shakes

Look for a balance of protein, carbs and fats.

High protein, lower in sugar

Avoid artificial additives like maltodextrin or xanthan gum.

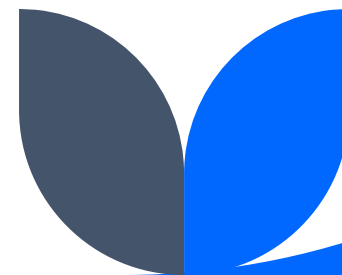
Protein – at least 15 grams per serving

Fiber – at least 3 grams per serving

Vitamins and minerals – A, B, C, D, E, K, calcium magnesium and potassium.

Minimize added sugars.

Calorie count between 200-400 calories.





Meal Replacement Shakes

Based on Health Conditions
and Age



Diabetes

Look for lower or minimal added sugars.

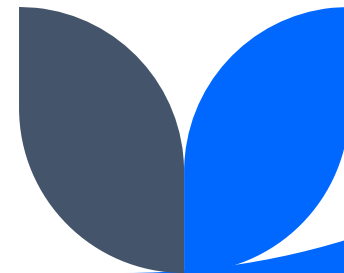
Stick to your carbohydrate goal for meals.

Higher protein (15-20 gm per serving) and higher fiber (at least 3 gm per serving).

Shakes specifically formulated for diabetes typically contain carbs that take longer to digest, minimizing blood glucose spikes.

Contain chromium and magnesium

Examples: Glucerna



Kidney Disease

Choose lower protein.

Whey protein is easily absorbed, even if on dialysis.

Lower sodium, potassium, and phosphorus.

Factor in the overall fluid intake to your daily fluid goals/restrictions.

Examples: Nepro, Novasource Renal

Hypertension

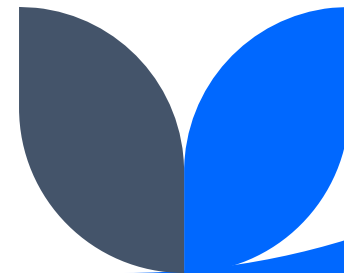
Low in sodium (less than 140mg per serving), but high in potassium, calcium, and magnesium.

Low in added sugars.

High protein – 20-30gm per serving

High fiber – 5gm per serving

Examples: Genepro protein powder, Premier, SOLO Organic Pea Protein



High Cholesterol

Look for low saturated fat.

Avoid any trans fat.

Plant-based protein sources (like soy or pea) are best.

Minimize added sugars, as this may contribute to weight gain.

At least 3 gm per serving of fiber.

Examples: Kate Farms (plant-based), GNC Lean Shake, Ka'Chava (plant-based, organic)



Thyroid Disease

Can help with weight management (loss or gain).

Look for a shake with moderate amount of iodine if hypothyroid.

Hashimoto's – consider shakes with a protein source from hemp, pea, or hydrolyzed beef, avoiding soy and dairy. Hemp protein is gluten-, dairy- and soy-free.

Continue to take thyroid medication on an empty stomach, wait 30 minutes to an hour before consuming your shake.

Soy can interfere with thyroid hormone production.

Whey as protein source is from dairy – can be inflammatory.

Examples: Thyro Fuel+ - plant-based, available on Amazon

Rootcology protein powder



Seniors

Seniors need more protein to maintain muscle mass. Look for at least 20 gm of protein per serving.

Calcium and Vitamin D

Fiber 3-5gm per serving

Digestive Enzymes will aid in protein absorption.

Some Medicare Advantage plans may cover shakes.





Thank you

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NEXT CLASS:

July 16th

Bland Hall

Room 104