

“SUPPLEMENTS: WHAT’S IN IT FOR ME?”

Your Questions Answered

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“The Art of Living Beyond Cancer”

5/4/26

Disclosures

- Retired and loving it!
- Still natural product consultations
- Information Provided
 - Reflects review of the literature
 - My opinion
 - No information provided is intended to diagnose or treat you

Learning Objectives

At the end of this session the learner will be able to –

- Identify personal risks and benefits when considering the use of natural medicines
- Discuss the methods to determine the quality of available products

Coffee

(Caffeine)

- Uses
 - CNS stimulant
- MOA
 - Blocks the activity of adenosine which slows brain activity
- Dosing
 - Regular brewed coffee – 80-100mg caffeine
 - 400mg/day considered safe for most
- Side Effects – generally dose related
 - GI upset, jitteriness, heart palpitations
- Caution
 - 1-3 cups of regular coffee daily may decrease the risk of dementia
 - > 6 cups per day may increase risk

Calcium

- Uses
 - Natural tranquilizer, calms stressed nerves; Sleep, Strong bones and teeth
- Mechanism of Action
 - Depression - Neurotransmitter and hormone release and function
 - Cancer – Possible antiproliferative actions
- Dose
 - Goal is 1200-1500 mg elemental calcium a day (no more than 500mg at a time)
 - Add up dietary intake + supplement as necessary = dose/day
 - Calcium citrate best - absorbed with out without food, Calcium carbonate – must take after a meal
- Interactions
 - Can decrease the absorption of nutrients (Fe, Zn, Mg, Phos) and some medications (etidronate, 4-quinolones, tetracyclines)
 - Take 1 hr before /2 hours after other medications, 4hrs after thyroid
 - Alcohol, PPIs, aluminum-antacids, laxatives, oxalic acid (cauliflower, spinach, rhubarb), high sodium intake, caffeine - decrease Ca absorption
- Foods
 - Dairy, dark leafy vegetables, fish, sesame seeds, almonds, chickpeas, sunflower seeds, figs, prunes
 - 8oz low-fat yogurt, 1ounce low-fat cheese, ½ C tofu, 1C cooked bok choy

Vitamin D

(D3 – cholecalciferol)

- **Potential Benefits**
 - Immune system health, bones and teeth, energy
 - Induction of cell differentiation and antiproliferation
 - Inverse relationship of Vitamin D levels and some malignancy
 - May also decrease the aggressiveness of tumors
 - Higher levels may not be beneficial in aggressive prostate cancer but data are conflicting in other types and phases
- **Interactions**
 - Synergistic therapeutic activity reported with cisplatin carboplatin, doxorubicin
 - Additive therapeutic effects with busulfan, etoposide, tamoxifen, 5-fluorouracil, carboplatin
 - Laxatives, steroids and some anti-cholesterol meds decrease Vitamin D absorption
- **Dose**
 - 2000 IU a day
 - OR as prescribed by your HCP

Magnesium

- Uses

- Strengthens nerves, tranquilizer, relaxing, healthy bones, tissue and blood circulation, synthesis of parathyroid hormone, regulation of calcium in bone, converts VD to its active form calcitrol

- Dose

- Usually 350mg (men) / 280mg (women), NMT 500mg/day
- Dose too high = diarrhea
- Magnesium citrate, magnesium chloride, magnesium lactate and magnesium aspartate = most bioavailable

- Foods

- Seeds, nuts, rye, millet, barley, green leafy vegetables, endive, celery, alfalfa, figs, grapefruit, oranges, corn, wheat, soybeans, seafood, bananas
- High in fiber = high in magnesium = 1 C cooked black beans, 6-8 Brazil nuts, 1 C okra, 1 C cooked brown rice, 1 oz almonds, ...

Vitamin K

K1 (*phylloquinone -foods/plants*) or (*phytonadione – synthetic*)

K2 (*menaquinone – 1-10*)

- **Actions**

- Improves low VK levels
- May improve calcium utilization in bones and CVS, moves calcium from CVS into bones
- May decrease risk of hip fracture, improve bone density and/or decrease bone loss but data is mixed
- May decrease HS muscle cramps

- **Side Effects**

- Overall well tolerated

- **Caution:**

- Derived from fermented soy

- **Drug Interactions**

- Not for use if taking warfarin – decreases effectiveness
- Other fat-soluble vitamins (D, E, A) may decrease absorption of VK

Vitamin K

K1 (*phylloquinone -foods/plants*) or (*phytonadione – synthetic*)

K2 (*menaquinone – 1-10*)

- Dosing

- Vitamin K
- Women: 90mcg
- Men: 120mcg
- MK-7 100mcg
- MK-4 500mcg
- Regimen: one dose daily with a meal
- Slow onset of benefit
- Requires lab testing to demonstrate benefit on CVS and bone density

Adaptogens - Ginsengs

Agent	Potential Benefits/ Mechanism	Side Effects/Cautions	Dosing	Drug Interactions
<p>Panax ginseng (Asian)</p> <p><i>P. quinquefolius</i> (American)</p>	<p>PG - Decreased tissue insulin resistance and increased insulin release, Anti-Stress, cognition, Immunomodulation, Antiviral, Anticancer, Anti-Cholesterol</p> <p>PQ – Antifatigue, Increased tissue sensitivity to insulin and may increase release, memory, Immunomodulation, Cardiovascular benefits</p>	<p>Gas, upset stomach, nervousness, excitation, sedation</p> <p>Caution: hypertension, heart palpitations, anxiety</p> <p>Diabetes in high doses</p> <p>ALL - Not for use in pregnancy</p>	<p>4-5 % ginsenosides</p> <p>1-2 g whole root</p> <p>100-300 mg extract TID</p> <p>Maximum dose is 4 grams a day</p>	<p>Additive: blood thinning, arrhythmias, low blood sugar, stimulation</p> <p>CYP3A4 inhibition – do not use with lamotrigine, imatinib</p> <p>Caution in bipolar disorder</p>
<p>Ashwaghanda (Withania somnifera)</p>	<p>Relieves stress, may cause growth of dendrites and axons, antioxidant, anti-inflammatory, anticancer, antidepressant, immune enhancing</p>	<p>Well tolerated</p>	<p>1-5% withanolides</p> <p>Extract 300mg 1-2x/day</p> <p>1 to 6 grams whole root</p>	<p>Additive Central Nervous System depression</p> <p>Decrease the effect of immuno-suppressants</p>

Rhodiola

(Rhodiola rosea)

- Potential Benefits
 - Adaptogen Increase energy, stamina, and mental capacity, decreases stress, antidepressant, anti-anxiety, and stimulating actions
 - Antiproliferation - prostate and liver cancers; Decrease in mutations and increases repair
- Mechanism of Action
 - CNS stimulation
 - Monoamine inhibition
- Dose
 - Standardization 3% rosavin
 - 50-340mg twice a day – AM and Noon Before a meal
- Side Effects
 - Dizziness, dry mouth, stomach upset; Caution in bipolar
- Drug Interactions
 - May have effects at 3A4 and p-glycoprotein
 - Additive hypoglycemia

The Vitamins B

- Thiamine (B1)
 - Assists nervous function
 - Yeast, peas, beans, grains, oats, wheat germ
- Riboflavin (B2)
 - Maintains vision and skin
 - Almonds, scallops, pink salmon, spinach, milk, mackerel, wheat germ, eggs, oats
- Niacin (B3)
 - Assists with release of energy from carbohydrates
 - Tuna, salmon, trout brown rice, nuts, mushrooms, meat
- Pyridoxine (B6)
 - Assists with metabolism, immune and nervous function
 - Peanuts, raw milk, egg yolk, tuna, salmon, white-meat, bananas, avocados
- Folic Acid (B9)
 - Prevents birth defects and heart disease
 - Dark green leafy vegetables, oranges, nuts, mushrooms, asparagus
- Cyanocobalamin (B12)
 - Reproduction, blood, and nerve function
 - Meat, poultry, free-range eggs, fish, soybeans

Siberian rhubarb

(Rheum rhaponticum)

- Uses
 - Hot flashes, night sweats, mood issues, sleep
- MOA
 - Works on estrogen receptor beta
 - Regulatory and protective effects in the brain, vessels and bone
- Dosing
 - 4mg of standardized extract ERr 731 from root
 - HCP monitoring recommended
 - N-1 monitoring also recommended
 - After 4-8 weeks can consider medication holiday to assess for ongoing need
- Cautions
 - Can interact with estrogen dependent conditions
 - Not recommended if pregnant, breast feeding, history of estrogen dependent cancer
- Used as a prescription type agent in Germany and European countries not an herbal agent

Black Cohosh

(Cimicifuga racemosa)

- Uses
 - Alleviation of the symptoms of perimenopause and menopause
 - May have cardiac and bone protective activity
- Mechanism of Action
 - May affect neurotransmitters
- Dosing
 - Standardized to triterpene glycoside content (1mg)
 - 300mg – 2000mg a day of the dried rhizome or root three times a day
 - Standardized product (Remifemin®)
 - Tincture or Extract also available, Change of dosage forms may improve response
- Side Effects
 - Stomach upset, headache, dizziness, cramping, weight gain
- Risk / Benefit

Flax(seed)

(Linum usitatissimum)

- Uses
 - Anti-inflammatory, cancer, arthritis, menopausal symptoms
- Mechanism of Action:
 - Omega-3 fatty acids (linolenic, linoleic, oleic acids), omega-6 fatty acid
 - High in lignans (phytoestrogens)
 - enterodiol, enterolactone, matairesinol
 - Anti-estrogenic: interferes with estrogen activity
- Side Effects
 - Laxative in large doses
 - May decrease clotting
- Dosing
 - Start low and increase as tolerated
 - 2-5 tablespoons of whole seed
 - 15 – 30 ml a day of flaxseed oil or 1000mg capsule
- Oil – contains no lignans only omega-3 and 6 fatty acids

Soy

(Glycine max)

- Avoid isolated isoflavone use in breast cancer/survivor
- Soy foods are not an issue
- Intake can be up to 1/3 - 1/2 of daily protein intake
- Sources
 - 1 cup Soy milk 3-10 grams
 - 4 oz Tofu 5-13 grams
 - 1/2C textured soy protein 6-11 grams
 - 1/2C Soy flour 20 grams
 - 3 T soy protein isolate 22 grams

Garlic

(*Allium*)

- Uses
 - Immune enhancing, antioxidant, anticancer, antibiotic, antiviral, anti-inflammatory, decreases in BP, cholesterol and BS, antivampire
 - Anticancer - Decrease in stomach, colorectal, endometrial, prostate cancers, number and size of colon adenomas
- Daily Dose
 - 1 - 4 cloves; 4-12 mg allicin daily
 - Odorless dosage forms should specify *non-heat* process
 - Enteric coated tablets can be used but only assists with breath odor
 - Heat destroys active constituents *If use in cooking crush/dice the garlic, let sit for 15 minutes prior to use*
- Side effects
 - Upset stomach Odor of garlic will come out of all pores
- Drug Interactions
 - Additive blood thinning: Aspirin, NSAIDS, Warfarin, Ginkgo biloba
 - Inhibits CYP2E1 - decarbazine
 - May inhibit CYP2C19 (letrozole)
 - May inhibit CYP 3A4 (vinca alkaloids, anastrozole, exemestane, taxanes, carboplatin, docetaxel),
 - May affect p-glycoprotein
 - No effect on CYP1A2 or 2D6

Green Tea

(Camellia sinensis)

- Uses
 - Antioxidant, antibacterial, anti-inflammatory , osteoporosis
 - Anti-mutagenic effects, anti-angiogenic, inhibits tumor cell proliferation, induces apoptosis, promotes cell cycle arrest, disables multi-drug resistance pumps, protects against cardiotoxicity
- Chemopreventive
 - Bladder, esophageal, ovarian (2 + cups daily decreased risk ovarian cancer 46%), pancreatic
 - Decreased oxidative DNA damage in a cohort of smokers
 - Angiotensin-converting enzyme (ACE) activity: high use of GT -> decreased risk in high activity genotype (women)
- Interactions
 - May inhibit 3A4 and P-glycoprotein
 - Tannin content may decrease the absorption of iron and codeine
 - Take two hours before or four hours after iron
 - May increase tamoxifen and verapamil bioavailability
 - Irinotecan – increased blood levels

Omega – 3 Fatty Acids

(Fish Oil-eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA))

- Uses
 - Anti-inflammatory, decrease cholesterol and TG, may increase HDL *and* LDL, brain (DHA), increases insulin sensitivity, increase weight after treatment induced weight loss
- Mechanism of Action
 - Multiple actions: suppress neoplastic transformation, increase apoptosis, inhibit cell growth, decrease angiogenesis
- Side Effects
 - Halitosis, heartburn, GI upset
- Drug Interactions
 - Additive blood thinning
 - Caution Large doses increase risk for hemorrhagic stroke
- Dosing
 - 2-4 grams a day in divided doses
 - 7.5-grams EPA

Melatonin

- Potential Benefits

- Sleep
- Decreased toxic effects from chemotherapy and/or radiotherapy
- Enhanced adriamycin effectiveness and decreased adriamycin cardiotoxicity
- Oncostatic role in breast cancer, decreasing aromatase activity and expression in MCF-7 cells
- Immune enhancer
- Stimulate bone marrow cell production

- Mechanism of Action

- Hormone secreted by the pineal gland in response to daily light - suppresses secretion and dark increases secretion
- Re-sets the normal circadian rhythm stabilizing sleep patterns
- Increases GABA binding in the brain, decreases neurotransmission
- Involved in growth hormone secretion, pain control and sexual function

Melatonin

- Side Effects
 - Mostly absent of adverse effects at doses < 8mg
 - Minor side effects: drowsiness, headache and dizziness
- Drug Interactions
 - Additive CNS depression
 - Long-term use of benzodiazepines may decrease endogenous melatonin
 - Fluvoxamine increases endogenous melatonin levels, inhibition of 1A2, 2C19 decreases elimination of exogenous melatonin
- Dosing
 - Jet Lag: 5-10 mg (at sleep time) upon arrival at destination and 3-4 days thereafter.
 - Insomnia: 0.3 to 5 mg administered one hour before sleep
 - Cancer : up to 20mg – with HCP
 - Immediate and slow release products

Chamomile

(Matricaria recutita, Chamaemelum nobile)

- Potential Benefits
 - Sedative, antispasmodic and anti-inflammatory
- Mechanism of Action
 - Anti-Inflammatory
 - Antihistaminergic
 - Sedative
- Side Effects
 - Rarely, may cause allergic rxns - Swish and spit test
- Dose
 - Standardized to 1.2% apigenin (extracts)
 - Teabags in one cup hot water; steep 10-15 min. Strength of tea depends on desired effect
 - For stronger tea use more bags

Valerian

(Valeriana officinalis)

- Potential Benefits
 - Sedative-Hypnotic, antispasmodic, anticonvulsant
- Mechanism of Action
 - Sedative
- Dosing
 - 200mg three times a day for anxiety
 - 400mg at bedtime to help with insomnia
- Side Effects
 - Nausea, sedation, excitability, headache, cardiac disturbances
- Drug Interactions
 - Alprazolam - one report of coma
 - May inhibit CYP3A4
- Caution
 - Possible hepatic toxicity

Alpha-Lipoic Acid - Neuropathy

- Uses
 - Diabetes, peripheral neuropathy, chronic fatigue syndrome, liver disease, cardiovascular disease, antioxidant
 - Improve insulin resistance and glucose effectiveness
- Mechanism
 - Antioxidant
 - Other?
- Dose
 - Diabetes 600 and 1200 mg daily
- Side Effects
 - Rash, GI
- Drug Interactions
 - Additive hypoglycemia
 - May counter anticancer medications due to antioxidant activity

Mushrooms

- Reishi Mushroom (*Ganoderma lucidum*)
 - Free radical scavenger, hepatoprotective
 - No known side effects
 - Interactions
 - Additive Hypotension
 - May interact with agents that work through free radicals (theoretical)
 - Inhibit CYP2E1, CYP1A2, and CYP3A
- Shitake, Enoki
 - Decrease cholesterol by 25% after 4 weeks
- Maitake Mushroom (*Grifola frondosa*)
 - Enhances immune system, may help with liver health
 - Anti-tumor action
 - Decreased doxorubicin toxicity
 - Normalizes cells
- Coriolus versicolor
 - Immune modulator
- Agaricus blazei given with traditional ChemoTx
 - Higher NK activity
 - Decreased side effects

Lion Mane Mushroom

- Uses

- May help protect against dementia by stimulating the growth of brain cells and preventing neuronal damage, potentially improving cognitive function and memory.
- Extract could help relieve mild depression and anxiety due to its anti-inflammatory effects and ability to regenerate brain cells, particularly in the hippocampus region responsible for emotional responses.
- May reduce heart disease risk by improving fat metabolism, lowering triglyceride levels, preventing cholesterol oxidation, and decreasing blood clotting, thereby benefiting overall cardiovascular health.

- Dosing

- Varies, generally 3-5grams daily in divided doses with meals

- Considered safe with few if any side effects

Turkey Tail Mushroom

(Coriolus versicolor)

- Improved immune function, better cognitive health, increased exercise performance, a healthier gut, reduced inflammation, stronger bones, and lower blood sugar
- Overall generally well tolerated
- Dosing
 - Variable
- Cautions
- Not for PG and breast feeding
- Interactions 2C9
 - Additive low blood sugar
 - Cyclophosphamide
 - Tamoxifen

Ginger

(Zingiber officinale)

- **Potential Benefits**
 - Anti-inflammatory, antispasmodic, motion sickness, nausea and vomiting with chemotherapy or after surgery, migraine
- **Side Effects**
 - Abdominal discomfort, heartburn, diarrhea, and a pepper-like irritant effect in the mouth and throat, may cause some sedation or drowsiness
- **Dosing**
 - Cook with it, Candied Ginger
 - 1gram for nausea and vomiting
- **Drug Interactions**
 - Additive interactions

Tumeric

(*Curcumin, Curcuma Longa*)

- Uses

- Anticancer, gastrointestinal disorders, liver and gallbladder issues, headaches, Alzheimer's disease, anti-inflammatory

- Mechanisms

- Inhibits oncogenesis during promotion and progression stages
- Antiproliferative
- Down-Regulates: the activity of EGFR and expression of HER2/neu, activation of nuclear factor *kappa*-b (NF-*kappa*-b), activation of STAT3 pathway
- COX-2 expression
- Inhibits androgen receptors, angiogenesis
- Increases sensitivity to apoptosis in resistant cancer cells
- Suppresses: the induction of adhesion molecules, the expression of MMP9 and inducible Nitric Oxide Synthase (iNOS)
- Preventive against skin, stomach, colon, and oral cancer
- May inhibit lung metastasis

Tumeric

(*Curcumin, Curcumae Longa*)

- Side Effects
 - Gastrointestinal (GI) adverse effects: nausea and diarrhea
 - No toxicity even at high doses
- Dosing
 - 500mg three to four times a day with food
 - Eat Curry, add to soups, and other foods
- Drug Interactions
 - Additive blood thinning
 - May enhance the cytotoxic effects of tamoxifen, doxorubicin, cisplatin, camptothecin, daunorubicin, vincristine, and melphalan
 - May decrease effects of cyclophosphamide
 - Docetaxel no interaction
 - May affect CYP enzymes (3A4, 1A2, 2D6)
 - May inhibit P-glycoprotein

Milk Thistle

(Silybum marianum)

- Potential Benefits
 - Antioxidant, antifibrotic, anti-inflammatory, immune enhancing , anticancer
- Mechanisms
 - May interfere with cancer promotion and progression
 - Decreases chemotherapy induced hepatotoxicity - alters the outer membrane of hepatocytes preventing toxin penetration
 - May assist with hepatocyte regeneration
 - Prevents glutathione depletion
- Side Effects
 - GI, diarrhea, gas, loss of appetite

Milk Thistle

(Silybum marianum)

- Standardized
 - 70% to 80% silymarin, newer 58%
- Dose
 - 200-240mg three times daily
- Drug Interactions
 - Increases clearance of estrogen
 - May inhibit cytochrome P450 2C9
 - Affects glucuronidation
 - No interaction seen with cisplatin, doxorubicin, vincristine, L-asparaginase
 - May be dose related, monitoring is suggested


Guidelines for Purchasing an Herbal Product

- Avoid imported products
- Avoid products that contain multiple (>5) herbs
 - “Proprietary Blends”
- Avoid “Cure-alls”
- Watch out for *conspiracies*
- Double check health claims with reference sources that are NOT trying to sell you something
 - NCCAM Web page – How to evaluate a web site
- Stores
 - Clerks are not healthcare professions
 - Are product knowledgeable in general
- Use products from reputable / established companies
- Labels
 - 1-800 company phone numbers/ Address/Web pages
 - Lot numbers and expiration dates
 - Label should indicate how plant obtained (cultivated vs wild) and part (e.g., root, leaves) used
 - Label should indicate standardization (if applicable)
 - Label should give milligram dose / dosage form

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Product Review: Ashwagandha Supplements

Initial Posting: 12/20/14 | Last Update: 3/1/15

Sections: Jump to a section by clicking on its name.

- What It Is
- What It Does
- Quality Concerns and What CL Tested For
- What CL Found
- Test Results by Product
 - CL's Top Pick
- What to Look for When Buying
- Concerns and Cautions
- Full list of Ingredients by Product
- How Products Were Evaluated



Summary: What You Need to Know About Ashwagandha Supplements

- Preliminary studies suggest that ashwagandha may help reduce anxiety, improve physical and

ConsumerTips™:

What to Consider When Buying and Using:

Choose an ashwagandha supplement that lists its amount of withanolides (either as a percentage the amount of ashwagandha or a milligram amount). Products made from root powder should contain a minimum of 0.3% (wt/wt) total withanolides and extracts should contain at least 1.5% (wt/wt) total withanolides. Look for products which provide a minimum of 6 mg of withanolides when taken at the number of servings suggested on the label.

Dosage:

Daily doses between 1,000 mg and 6,000 mg of ashwagandha root powder and from 500 mg to 1,500 mg of extract have typically been used in clinical studies. See the What It Does section for dosage details for specific medical uses.

Concerns and Cautions:

Ashwagandha is generally well tolerated. However, large doses may cause gastrointestinal upset, vomiting, or diarrhea when taking higher doses in some people.

Some preliminary research suggests ashwagandha could potentially lower blood pressure. It should be used with caution in people with low blood pressure and in those taking medications to lower blood pressure, as it may enhance the effect of these medications. It may also have sedating effects, and should not be used with other herbs or medications that cause sedation, or prior to receiving anesthesia.

Ashwagandha may lower blood sugar levels; it should not be used by people with diabetes or hypoglycemia except under physician supervision (Andallu, Indian J Exp Biol 2000).

What It Is:

Ashwagandha (*Withania somnifera*) is an herb grown in India and in certain regions of Nepal. The roots contain withanolides, which are compounds thought to be responsible for some of the herb's effects (Prabhakaran, Pak J Pharm Sci 2012). Ashwagandha is sometimes referred to as "Indian ginseng" because it is thought to have similar "adaptogen" qualities, such as modulating the immune system and supporting the body's response to stress. It is also sometimes referred to as "winter cherry," but should not be confused with another plant, *Physalis alkekengi*, which is also commonly referred to as "winter cherry."

What It Does:

A number of small, short-term studies suggest a variety of potential uses for ashwagandha, but larger, long-term studies are needed to confirm these findings.

Anxiety/Insomnia

Clinical studies suggest that ashwagandha can reduce anxiety and stress. One randomized, double-blind study of 75 middle-aged adults with moderate to severe anxiety found that anxiety was dramatically reduced, and fatigue, motivation and concentration significantly improved, in those who received 300 mg of ashwagandha root extract (standardized to 1.5% withanolides) twice per day (a total daily dose of 600 mg ashwagandha extract containing 9 mg of withanolides), plus a daily multivitamin for 12 weeks (Coolidge, PLOS One 2009). A second group of patients in the study who, instead, received a weekly psychotherapy sessions and a placebo, had a smaller reduction in anxiety. Both groups were encouraged to reduce their intake of stimulants (caffeine, chocolate, tobacco, etc.) and were instructed in deep-breathing exercises.

A small study among people with generalized anxiety disorder, panic disorder, and anxiety mixed with depression, found that those who took ashwagandha extract (two to six 250 mg tablets per day, for a total

RESULTS OF CONSUMERLAB.COM TESTING OF ASHWAGANDHA SUPPLEMENTS						
Click on a plus (+) icon, beneath a product name to find a vendor that sells it.						
To find retailers that sell some of the listed products click here.						
Product Name, Amount Listed of Ashwagandha per Unit, Serving Size, and Servings Per Day Suggested on Label	Claimed Amount and Form of Ashwagandha Per Labeled Daily Serving	--TEST RESULTS--				Cost for Daily Suggested Serving on Label
		OVERALL RESULTS: APPROVED or NOT APPROVED	Contained Labeled Amount or Expected Amount of Withanolides (Includes Withanostides)	Did Not Exceed Contamination Limit for Lead, Cadmium and Arsenic	Disintegrated Properly (NA=Not Applicable)	
Click on "Ingredients" for Full Listing	Expected Daily Amount of Withanolides (C = Claimed; M = Minimum Expected1)				Other Notable Ingredients/Features ² Price Paid	
Planetary Herbals Full Spectrum™ Ashwagandha (500 mg Ashwagandha root powder [% withanolides not stated] and 70 mg Ashwagandha root extract [% withanolides not stated] per tablet, 1 tablet, twice daily)	1,000 mg ashwagandha root powder 140 mg ashwagandha root extract	NOT APPROVED	Found 5.4 mg of withanolides per daily serving — in-line with listed amounts but a slightly low daily dosage ⁸	✓	✓	\$0.19 [Cost 6 per mg of withanolides] Calcium \$11.32/120 tablets
Dist. by Planetary Herbals, LLC Ingredients plnt™ by V8 [The Vitamin Shoppe] Ashwagandha (380 mg Ashwagandha root powder [% withanolides	380 mg to 1,140 mg ashwagandha root powder	APPROVED (when 2 to 3 capsules taken daily)	Found 3.3 mg to 9.6 mg of withanolides per daily serving	✓	NA	\$0.19-\$0.57 [Cost 34 based on amount found]

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- Does not contain harmful levels of specified contaminants
- Will break down and release into the body within specified amount of time
- Has been made using safe, sanitary and well-controlled manufacturing practices according to FDA and USP guideline

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Multi-Daily Vitamins & Minerals

Why Does Quality Matter?
More than half of all Americans take a vitamin or supplement, many on the advice of a health professional. However, few realize that the quality of products available on store shelves

Verified Products
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USP Verified Dietary Supplements

Over 100 different dietary supplement formulas have received the USP Verified Mark, representing several different brands and retailers. Here are three different ways you can find a quality supplement.

Supplement Types	Brands	Retailers
Minerals	Nature Made	COSTCO WHOLESALE
	KIRKLAND Signature	

Quality Product - NSF

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Keep your business alive with NSF's expertise in Pharma Biotech, Medical Devices and Dietary Supplements

LEARN HOW OUR KNOWLEDGE CAN MINIMIZE YOUR RISK

NSF International

Founded in 1944, our mission is to protect and improve global human health. Manufacturers, regulators and consumers look to us to develop public health standards and certifications that help protect food, water, consumer products and the environment. As an independent, accredited organization, we test, audit and certify products and systems as well as provide education and risk management.

LATEST NEWS

NSF International Selected by Watercoolers Italy as Its Sole Approved Bottled Water Inspection Body

1 Day Ago

NSF International has been selected by Watercoolers Italy (WI) as its sole approved inspection body to perform annual audits of...

Looking for Certified Products & Systems?

We certify **Millions**

The NSF Mark

This mark is your assurance that the product has been tested by one of the most respected independent certification organizations in existence today. It is valued by consumers, manufacturers, retailers and regulators.

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Health and Beauty

Supplements and Vitamins Cosmetics / Personal Care

As part of our efforts to educate consumers, we put together an array of information to help protect public health specifically related to cosmetics, supplements, vitamins and personal care products. These include resources on sport supplements, organic personal care products and safer cosmetics, so we can help make ourselves safer and healthier by being aware of what we put in and on our bodies.

Trying to find a supplement or vitamin can be challenging unless you are looking for a certified product. Our listings show you which products we have certified to contain what is on the label.

Organic personal care and cosmetics are a lifestyle choice. Our scientists and researchers have developed methods for testing and verifying that these products are safer and that what is on the label is actually in the product.

RELATED TOPICS

- Drinking Water Filters, Testing and Treatment
- Information to help you find certified filters and treatment systems.
- LEARN MORE

Search for Certified Products

Have Questions?

Contact Our Consumer Information Office

info@nsf.org
p: +1 734.418.6612

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Supplements and Vitamins

Supplements and Vitamins Certification Dietary Supplement Claims, Labels, and Regulations

Supplement Frequently Asked Questions

Certified for Sport Program

While not all dietary supplements pose a problem, it can be confusing to know which supplements are safer to purchase. How do you determine the good products from the bad?

If you are concerned about the contents of your vitamins, minerals, herbs, botanicals, protein bars or other supplements, you're not alone. In the last decade, the dietary supplements industry has grown tremendously. The fact that these products do not receive the same regulation as prescription or over-the-counter drugs can raise questions in the minds of many people.

Whether you have questions about how these products are regulated, the scope and benefits of certification or how to read a supplement label, you can find useful information on this site to help you make an educated decision when shopping for dietary supplements, sports supplements or other nutritional products.

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Selecting Dietary and Nutritional Supplements

SHARE TWEET EMAIL

If you've shopped for supplements recently, you've probably noticed that the shelves are filled with many different types of products. While the array of choices may seem overwhelming at first, product labels can help guide your decision. Some key things to look for include:

- Outrageous Claims.** Some supplements promise to help make us thinner, smarter, stronger or faster without making any other changes in lifestyle. Just as with other products, if it sounds too good to be true, it probably is.
- Catch Phrases.** In an effort to appeal to health-conscious consumers, many supplements claim to be "all natural." Unlike "organic," the phrase "all natural" is not an official term that is regulated by the federal government and does not offer any guarantee as to a product's safety. Other phrases to watch for include "clinically tested/proven" and "pharmaceutical strength." There is no such thing as pharmaceutical strength for over-the-counter supplements.

Claims of Certification

Two types of product certification are available to companies that manufacture dietary or nutritional supplements.

- NSF Certification to NSF/ANSI 173. This American National Standard helps confirm that what's on the label is in the product and that the product contains no unsafe levels of contaminants such as heavy metals, pesticides and herbicides. Products

RELATED TOPICS

- Dietary Supplement FAQ: Most frequently asked questions about supplements.
- LEARN MORE

Supplement Labels: What you should know about supplement label claims.

LEARN MORE

Sample Recommended Companies

- James Duke, PhD
- Herbalist/Botanist
 - Bioforce
 - Eclectic
 - Enzymatic Therapy
 - Nature's Herbs
 - Nature's Way
 - Phytopharmica
 - Quanterra
 - Schwabe
 - Solaray
 - Solgar
- Others
 - From CL and USP
 - Gaia
 - HerbPharm
 - Vitamin World
 - GNC
 - Spring Valley

Dosing

- Label doses target the 70kg male
 - Adjust doses to your weight
- Droppers
 - One normal pump = 30-40 drops
 - Two droppers full in a cup of hot water = amount for a cup of tea
- Try different formulations

Is it working? N-1 Study

- N = YOU
- Document Symptoms/Target goals
 - Baseline
 - Periodic – if dose adjustment is needed
 - End – trials last about 4 months depending
- Scale(s)
 - 0-----5-----10
 - Date it, mark it and put it away
- Intervention(s)
 - Follow the recommended dosing. More is *not* necessarily better.
- Side Effects
 - Monitor them on a new scale
- Outcome
 - Difference from baseline
 - Is it worth continuing??

Herbs, Supplements and Surgery

- Discontinue 14 days prior to surgery
- If not stopped, inform the surgeon of the product being used
- Increased risk of bleeding complications
 - Garlic, Ginkgo, Ginseng, Vitamin E
- Enhanced anesthetic effect
 - Kava, Valerian
- Decreased anesthetic effect
 - Saint John's wort

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- mskcc.org/about/herbs>
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- cancer.gov
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- American Herbal Foundation (herbs.org)
- allherb.com

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- consumerlabs.com (subscription)
- naturalmedicines.com (subscription)
- quackwatch.com
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