

Nutrition SENSE

UNIVERSITY OF MASSACHUSETTS – DINING SERVICES

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We're on the web:

www.umass.edu/diningservices/nutrition

OCTOBER

quick tip

More does not always
mean better!

DIETITIAN

on duty

Get free nutrition advice in the
DCs at the following times!

5:30-7:30 pm

Oct. 3 – Franklin DC

Oct. 10 – Hampshire DC

Oct. 17 – Worcester DC
Hillside Room

Oct. 24 – Berkshire DC

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Be Smart. Eat Smart.



Nutrition
UMASS AMHERST DINING SERVICES



*Taking a multivitamin?
Meal replacement shakes?
Protein supplements?
What's in it?
Does it really help?*

Supplements

What is a Supplement?

A supplement is neither a food nor a drug, but is intended to support good health and nutrition. The most popular supplements in the United States are vitamin and mineral supplements. These are not intended to replace foods in the regular diet, but instead support the diet with more nutrition.

Dietary Supplements

The term "dietary supplement" can be found on a myriad of products in the United States, some of which may be the most healthful of choices. For example, many energy drinks now come with a supplement label. These drinks may be fortified with some B-vitamins (oftentimes even up to 8000% over the daily value recommended), but they also tend to have significant amounts of caffeine and sugar, which means you may feel a "crash" in energy level after a couple of hours. Health claims on cans of energy drinks may not be true and accurate, as the product and its ingredients are not regulated by the FDA.

Who Takes Supplements?

Some groups of people with certain health conditions or severely restricted diets are prescribed supplements by a doctor, such as:

- **Pregnant and breastfeeding women** take prenatal vitamin and mineral supplements to support the health of the growing baby and themselves
- **Strict vegetarians** may be told to take a supplement to help make up what nutrients they are not consuming from animal products

- **Individuals with diseases affecting their digestion or absorption of nutrients** may also be encouraged to take supplements in order to help ensure that they do not become malnourished. Calcium supplements are often recommended for preventing osteoporosis, especially among women.
- **People with anemia** are often prescribed iron supplements

Are Supplements Safe?

When prescribed or recommended by a physician, supplements can be extremely beneficial, especially to groups of people who are at a high nutritional risk without them. For a healthy individual with a well-balanced diet, however, it is unlikely that supplements will provide any extra benefits. Remember, supplements are not made to replace foods. The best way to get nutrition is always through a healthy and balanced diet whenever possible.

Choosing a Supplement Safely:

1. Talk with your physician about supplements. They can help you explore exactly what type of supplement you should look for and the benefits of taking a supplement.
2. Purchase supplements from reputable stores or pharmacies.
3. Look to make sure that no more than 100% of the daily requirements for a given vitamin or mineral are in each tablet.



Megadoses: Certain supplements may contain a "megadose" (an amount of vitamin or mineral more than 10 times the recommended daily intake) of some nutrients. Remember, supplements are like medication and more doesn't always mean better. In some case, megadoses of vitamins and minerals can be extremely detrimental to health and may even be fatal if taken for extended periods of time without the physician's recommendation. This is especially true in the case of vitamins that are "fat soluble" (Vitamins A, D, E, and K). These vitamins are stored in the body and amounts of them can build up and damage your liver and other organs. Megadoses of water-soluble vitamins can also be dangerous depending on the vitamin. Read the label carefully before buying to help ensure that you are getting the right amounts of each nutrient. The chart below indicates the side effects of megadoses.

Nutrient	Daily Values	Toxicity Associated with Megadosing
Vitamin A	5000 IU	Fatigue, vomiting, blurred vision, death
Vitamin D	400 IU	Excessive thirst and urination, vomiting, loss of appetite, loss of bone calcium
Vitamin E	30 IU	May interfere with blood clotting
Vitamin K	80µg	Toxicity extremely rare, except in infants
Vitamin C	90mg	Nausea, cramps, diarrhea, nose bleeds, can also increase iron absorption which may be harmful to some people
Vitamin B3 (Niacin)	15 mg Male 19 mg Female	Skin flushing, glucose intolerance, blurred vision, liver abnormalities
Vitamin B6	2.0 mg Male 1.6 mg Female	Irreversible nerve damage, numbness in extremities
Iron	8 mg Male 18 mg Female	Reduces zinc absorption, constipation, may increase risk for heart disease, accidental overdose may cause death (especially in children)

Fat soluble vitamins in purple Water soluble vitamins are in green Iron is a mineral

Meal Replacement Bars/Drinks

What about Meal Replacement Bars or Specialty Drinks?

Some meal replacement products such as bars or shakes may also be considered supplements, depending on the amounts of vitamins and minerals added to them. You can tell a supplement from a non-supplement by looking for a supplement label, which is identical to a nutrition facts label, except for the fact that it lists daily values of vitamins and minerals instead of (or in addition to) calories, carbohydrates, protein, fat, etc.

The following is an example of a supplement facts label that could be found on vitamin/mineral supplement. A meal replacement shake or bar also has a regular nutrition label.

While these products may be helpful to people who need meal replacements for weight loss/gain or because they simply don't have time to eat, for most healthy people, eating balanced meals is best. As with any other supplement, avoid meal replacements or drinks which have more than 100% of your daily value for any given vitamin or mineral.

Supplement Facts

Serving Size: 2 Capsules Servings Per Container: 60		
Amount Per Serving	% Daily Value	
Vitamin A (100% as Betatene®)	5000 IU	100%
Vitamin C (Ester-C® calcium ascorbate)	60 mg	100%
Vitamin E (d-alpha tocopherol succinate)	100 IU	333%
Vitamin B-1 (Thiamin)	3 mg	200%
Vitamin B-2 (Riboflavin)	6 mg	588%
Vitamin B-6 (Pyridoxine)	10 mg	300%
Folic Acid	400 mcg	100%
Vitamin B-12 (Cyanocobalamin)	20 mcg	333%
Zinc Orotate	10 mg	67%
Selenium (Organically bound)	20 mcg	29%
Phosphatidyl Serine (Leci-PS®)	100 mg	‡
GABA (Gamma Amino Butyric Acid)	60 mg	‡
Ginkgo Biloba Standardized Leaf Extract 24% ginkgo flavone glycosides and 6% terpen lactones	50 mg	‡
Masquelier's® Patented oligomeric proanthocyanidins complex (seed, bark)	50 mg	‡

* Percent Daily Values are based upon a 2000 calorie diet.
‡ Daily Value not established.

Protein Supplements

What are protein supplements?

Protein supplements have been used by athletes to maintain and increase lean muscle mass. Supplement formulas differ depending on the goals of the sportsperson, which can include weight gain, fat burning or improved stamina. Protein supplements can be a convenient way to increase daily protein intake when protein from dietary sources is inadequate.

Is Too Much Protein Dangerous?

A little extra protein for most people will not do much harm, so feel free to have a protein bar now and then. But you can definitely overdo it. According to a recent report, a protein overload can cause...

Stomach Trouble

Damage To The Liver

Immune Dysfunction

Dehydration

Bone Loss

Cancer Promotion

Gout

Osteoporosis

Very Low Energy

Calcium Loss

Damage to Kidneys

Since the body cannot store amino acids (the building blocks of protein), there is no advantage to consuming large quantities of protein supplements. When too much protein is ingested, the body must eliminate it, resulting in dehydration and calcium loss through the urine. As a result of this natural process, the body does not gain many of the benefits that many people incorrectly believe the body gains from bulking up on protein.

There is no clear-cut line between safe and dangerous amounts of protein, but experts agree on this: whether you're a writer or a weight lifter, it is better to get your protein from a balanced diet than from protein supplements.

Healthful Protein from Diet Alone:

Soy Products, including Tofu Dairy Products
All Meats (Beef, Pork, Poultry, Fish) Peanut Butter and Nuts

For more information on the amount of protein in foods, go to www.umass.edu/diningservices/nutrition.

Protein Requirements for Different Types of Activity Levels

Weight of individual by weight	Regular 0.36 grams of protein per pound	Advanced 0.5 - 0.8 grams protein per pound
120 lb	43.2 grams	60 – 96 grams
150 lbs	54 grams	75 – 120 grams
200 lbs	72 grams	100 – 160 grams
250 lbs	90 grams	125 – 200 grams

Regular refers to students who exercise 3-5 times per week for 20-60 minutes per day. **Advanced** refers to students who are building muscles and some sports, such as football which requires strength training.

UMass Athletes have their own Sports Dietitian

If you are an athlete on a UMass team, you can meet individually or with your team with the Sports Dietitian by signing up for an appointment on the door of 254 Boyden.

Students not on a UMass athletic team can also meet with the dietitian at University Health Services to set up a personalized diet by calling 413.577.5314.



Supplements and Meal Replacement/Drinks researched and compiled by Heather Morin, Nutrition Major, Class of 2008.

Protein Supplements researched and compiled by Taylor Geer, Nutrition Major, Class of 2008.

Special thanks to Caren Weiner, MS, RD

Winner of ten national awards from National Association of College and University Food Services:

“Outstanding College and University Menu for Residential Dining”

in 2000, 2001, 2002, 2004, 2005, 2006, 2007

“Most Creative Nutrition Promotion”

2003, 2004, 2006



Go to our website:

www.umass.edu/diningservices/nutrition

for more specifics to improve your eating habits

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