

Boost Your Performance!

By Adam Mougey

The allure of nutritional supplements is undeniable; everyone has a limited amount of time, and nobody wants to spend hour after hour in the gym just to get a little stronger or to trim a few pounds. When presented with an alternate route to fitness — particularly one which comes in an easy-to-take pill form — we tend to jump at the opportunity. Unfortunately, not only is this path generally not effective, it can have some unhealthy side effects.

Tweaking your diet to enhance performance is not a particularly new idea to most college students. Your high school health teacher used to patiently explain the importance of a healthy diet, perhaps through a series of inspiring films and a well-placed poster or two expounding on the wonders of vegetables. Unless you spent the entire time asleep, you are aware that nutrition can affect your performance and physical well-being.

Something your health teacher probably did not mention was the possibility of supplementing your diet with anything other than your average multivitamin. Between the use of supplements by famous athletes, and the claims of others in advertisements, the idea of supplying your body with nutrients it may not be getting from that steady diet of fast-food has become more appealing.

However, before you buy that box of Super Muscle Gain XXL, stop and think about some of the risks and how they rank against the potential benefits:

“Can the supplement be found more cheaply than in powder or pill form?”

Often supplements, such as protein powders, can be easily obtained in a well-balanced diet. Buying the powdered or pill form will only increase the cost, not the quality, of the supplement.

What evidence exists which supports the claims made by the supplement manufacturer?

Supplement companies have been known to run their own studies or even extrapolate the results from animal studies in order to advertise benefits which cannot be confirmed by independent laboratories. If the study wasn't published in a peer-reviewed journal or was not performed on humans, its results may be questionable.

Is the supplement pure?

Independent testing of supplements for purity have been known to reveal a number of impurities in the form of fats, flavoring agents, and stimulants. Check if the company supplying your supplement has been certified as adhering to the standards of Current Good Manufacturing Practices and is pharmaceutically registered. This means that the manufacture of the supplement follows current standards, and that supplement has been inspected by the FDA.

What are the possible short and long-term side effects?

Many supplements which were popular a few years ago have been found to have long-term effects which could plague the user later in life. Also, some supplements can have serious short-term side effects, which can vary in impact from annoying to life-threatening. Before starting use of a supplement, check with your doctor for any possible complications.

Am I spending enough time in the gym for this supplement to work for me?

Most performance-enhancing supplements are intended for use by athletes who have already pushed their bodies as far as possible. Supplements are meant to raise the potential of the athlete to push them

Supplement: Amino Acid (Protein) Supplements

Myth: Provides the ideal low-fat, high protein source of energy for growing muscles.

Fact: 140 g protein from tuna, \$2.80

Fact: 140 g protein from protein powder, \$9.80.

Supplement: Androstenedione

Myth: Raises testosterone levels, increasing lean body mass by acting as an anabolic steroid.

Fact: No increase in performance; testosterone levels are unaffected in males. Side effects include an increase in estrogen levels, causing breast enlargement in some men.

Supplement: Beta-Hydroxy-Beta-Methylbutyrate (HMB)

Myth: Decreases the breakdown of muscle tissue for energy during exercise, causing a net effect of increased muscle size and strength.

Fact: Only one lab has actually studied this compound in humans, most research was done on animals and may not apply to humans.

Supplement: Chromium Picolinate

Myth: Promotes the function of insulin, causing an increase in fat metabolism and an increase in lean body mass.

Fact: No perceivable increase in lean body mass or performance-enhancing effects. Has demonstrated mutagenic effects at high cellular concentrations.

Supplement: Creatine Monohydrate

Myth: Provides tremendous weight and strength gain.

Fact: Can slightly increase performance in approximately 2/3 of the population. Side effects of diarrhea, muscle cramping, and dehydration have been reported.

Supplement: Dehydroepiandrosterone (DHEA)

Myth: “Fountain of Youth”; Raises testosterone levels, increasing lean body mass by acting as an anabolic steroid.

Fact: Studies disagree, but it is thought that DHEA supplementation may have similar consequences and side effects to androstenedione.

past plateaus in their performance. If a plateau has not been reached, than that extra push is probably unnecessary.

This is not to say that supplements do not work; some individuals have benefited through the use of nutritional supplements. However, before supplement use is begun, the individual should take care to evaluate the risks against the potential benefits. It has been demonstrated that

simply maintaining a healthy and varied diet (such as following the guide established by the Food Pyramid) can increase energy, decrease stress, and lower cholesterol. All of this without potential side effects.

If you have further questions about sports supplements for performance enhancement, contact the author in the Peer Education Office at 346-4456.

Spring (and smoke) Is In The Air

By Annie Dochnahl

When you have survived another Eugene winter, and the grey atmosphere gives way to spring's green airiness, it's a natural time to consider what makes Eugene, Eugene. You may conjure up images of bike paths, the Willamette River, Saturday Market, outdoor activities galore and Bijou movies. Eugene also has the dubious honor of being perceived as a pot-friendly town. According to the 1998 UO CORE survey, students on campus have the misperception that approximately 94% of students smoke marijuana once a month, when in fact less than 30% of students smoke pot monthly. Although far fewer students smoke than most of us imagine, 30% of the student body smoking pot is a situation that poses many questions.

How many students get caught smoking pot and what happens when they do?

I spoke with Chris Loschiavo, Director of Student Judicial Affairs; he's the chap in Oregon Hall who deals with the students who are caught smoking pot. In the 1998/1999 school year, there were 210 reports to his office of non-alcohol drug offenses; the lion's share involving marijuana use in the resident halls. At the midpoint of the 1999/2000 school year, that number was already 219 cases. As in the previous year, most of these cases are pot related and involve smoking in or around the dorms. For those readers who need a prompt with the math, that's potentially a doubling of the number students being reported on campus for smoking weed. Several possible explanations, much like a multiple choice test, spring to mind: a) more students are smoking, b) they're smoking more boldly out of doors, c) oth-

ers in the dorm are fed up and are reporting more, d) all of the above, e) other. The answer is not readily available, but allow me to provide some answers to questions that are often pondered by students who are confronted with pot smoke.

What are the health risks of smoking pot?

First, some background on the immediate effects. THC, the active ingredient in marijuana, is absorbed rapidly (6-8 minutes) and completely when smoked. It is metabolized slowly, with a half-life of 30 hours-4 days. Since THC and its metabolites are fat soluble, it can be found in minute quantities in the body and urine for weeks after a person has smoked. It passes across the blood brain barrier and has numerous pharmacological effects. Nearly every region of the brain has receptors for “cannabinoid” and thus many aspects of the central nervous system are affected. Researchers' short list of effects includes general psychoactive effects such as altered perception of time, relaxation, mild euphoria, and disassociation of ideas. Other immediate effects include increased heart rate and blood pressure, increased appetite, and dizziness. At higher doses of THC, the user can experience intensification of emotional response, depressive or panic reaction. In addition, tolerance and withdrawal symptoms, such as irritability, insomnia, nausea, craving, also develop, illustrating

the addictive aspects of marijuana use.

Over time, pot smokers tend to experience a suppressed immune system, which renders them susceptible to numerous infections and diseases. Their lungs also take a beating. Compare the toxins found in marijuana to that found in tobacco (Table 1). Many pot smokers argue that there's no conclusive evidence that shows pot smoking causes lung cancer. Consider that the tobacco industry has been trying to make that same argument for years and yet the number of cigarette smokers who die annually is 400,000 in the US alone. The concept is pretty simple: when we breathe toxic air, our lungs suffer.

What about second hand effects on those around the pot smoker?

Some pot smokers also say that smoking doesn't adversely affect others in the same negative way that excessive alcohol use can. “Weed makes for easy and laid back fun,” is the common argument. Unfortunately, this isn't always so. Second hand smoke issues aside, there are several studies which link trauma injuries (largely motor vehicle accidents) to marijuana use. One such study reveals that 35% of those injured were smoking pot, 33% drinking alcohol and 16% a combination of the two. For a local and anecdotal point of view, Loschiavo shared that it's common knowledge that the one wing in the resident hall that has the most marijuana incidents is also the

wing that has the most problems with adversarial and anti-community energy. The CORE survey revealed that 67% of students said they would prefer not to have marijuana and other drugs at the parties that they attend. Not only can short-term experimentation lead to longer-term health problems, not everyone sees the effects as “easy, laid back fun.”

How can one compare the drug equivalent of apples and oranges to make the conclusion that getting drunk is worse than getting stoned or that smoking cigarettes is worse than a joint?

I wonder how a student can answer this strange question. My hunch is the pot smokers will find a way to justify pot, the cigarette smokers will justify tobacco and the drinker will justify alcohol. But do we learn anything when we just keep sucking down our drug of choice, fortified with sketchy excuses for why this drug is better than that drug?

How about taking a real risk? How about getting together with your friends and as an experiment come up with a list of activities that you could try that provide “mild euphoria, relaxation, and altered perception of time” that don't involve any of the above discussed drugs. And then go out and try one of them this weekend. I'll give you a bit of list for starters: rock climbing, white water kayaking, cross country skiing, long runs, meditation, reading poetry, falling in love.

Come to the Peer Health Education office to check out the book *A Primer of Drug Action* (1998) by Robert Julien to read about the studies cited in this article. Or talk with one of the Peer Health Educators to brainstorm more ideas on how to get a drug-free high in Eugene.

Table 1: Comparison of just a few of the toxic gases in marijuana and tobacco smoke

Gas Phase Analysis	Carbon monoxide (mg)
Marijuana 3.99	Tobacco 4.58
Ammonia (ug)	
Marijuana 228	Tobacco 178
Acetone (ug)	
Marijuana 443	Tobacco 578
Benzene (ug)	
Marijuana 76	Tobacco 67
Toluene (ug)	
Marijuana 112	Tobacco 108