Nutra Living

Health, wellness and living your best life – *naturally*.

nutrasource diagnostics inc.

Spring 2013 | Volume 3, Issue 2

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Let's get social!

Welcome to the spring 2013 issue of NutraLiving!

NutraLiving is a quarterly health, nutrition & wellness newsletter published by Nutrasource Diagnostics Inc.

A bit about us...

Nutrasource Diagnostics is a research and consulting company focused on the natural health and functional food industry.

We help companies bring their health and wellness products to market by providing regulatory, product testing and clinical trial services.

Get in touch with us at info@nutrasource.ca!

The problem with sodium: Why too much is harmful and how you can eat less

You have probably heard many times over that too much sodium is harmful to one's health. Healthcare practitioners, educators, the popular media and, in some cases, even the food industry have been putting the spotlight on sodium for a while now. The message? We as a general population are consuming way too much of it and are suffering as a result.

Although your body needs some sodium to function properly (1500 mg per day is the Adequate Intake [AI]) , excess sodium intake—defined as more than 2300 mg per day, which is the Tolerable Upper Intake Level (UL)—can lead to high blood pressure, or hypertension. High blood pressure can lead to the development of life-threatening illnesses like heart disease, stroke and kidney disease.

Excessive sodium consumption is a problem for children, too. It can lead to a greater likelihood of developing high blood pressure later in life as well as a preference for salty (that is, high sodium) foods.

This is all very concerning given that **Canadians aged 1 year and older consume an estimated 3400 mg of sodium per day**!

Following a low-sodium diet sounds simple enough, but many of us struggle when it comes to choosing the right foods.

Part of the problem may be that sodium isn't always easy to spot. Sure, table salt contains high amounts of sodium, but so does ketchup, processed meats, veggie burgers, breads, canned tomato sauce and dill pickles.

So where does all the sodium come from and how can we use this information to make better choices? We typically get our dietary sodium from four main sources:

- **5% of our total intake is added during cooking**, such as by seasoning a piece of meat
- **6% of our total intake is added at the table**, including the salt shaker, dips and condiments
- **12% of our total intake is found naturally in foods**, such as fresh salmon
- **A whopping 77% of our total intake is found in processed foods**, including restaurants and fast foods

Simply being aware of these sources can help us eat less sodium. By lowering our sodium intake by 1840 mg per day, the incidence of high blood pressure in Canada would decrease by up to 30%. This translates to hundreds of millions of dollars in healthcare savings and a generally healthier population overall.

Use these tips to help lower your sodium intake:

- Eat fresh or frozen **vegetables** or canned vegetables with lower sodium or no added salt
- Buy **bread products** that are lowest in sodium, and try sodium-free grains like quinoa and barley
- Choose **dairy products** wisely—milk, fortified soy beverages and yogurt are low in sodium
- Buy unseasoned **proteins**, unsalted nuts and low-sodium canned legumes
- Eat at home more often and make your own **condiments, dressings and dips**
- **Taste your food** before adding salt—it's probably flavourful enough as is!
- Experiment with herbs **and spices** which are sodium-free. Examples include fresh parsley, basil, rosemary and cilantro and dried cumin, turmeric, coriander, curry powder, paprika, cayenne or black pepper.

Source: Health Canada, 2012

Ask Jenny: *Natural health products*

Jennifer Andrews, M.Sc., a nutritional scientist at Nutrasource Diagnostics, answers all your burning questions about the not-so-straightforward world of natural health products (a.k.a. dietary supplements).

Q: What's the difference between enteric coated and non-enteric coated fish oil supplements? Is one better than the other?

A: Enteric coating is a protective outer layer that is added to supplement capsules during manufacturing.

The coating helps prevent the product from breaking down prematurely in the stomach's harsh acidic environment, allowing for optimal absorption in the neutral pH of the small intestine. This delayed release helps ensure that the active ingredient (omega-3s) has the highest possible degree of bioavailability and, ultimately, incorporation into cell membranes.

Enteric coated products can also help reduce side effects commonly associated with fish oil supplementation. Side effects vary depending on the individual (and may go away entirely after consuming fish oil for a while) but can include an unpleasant fishy aftertaste and fishy burps. If side effects like these are a problem for you, enteric coated fish oil may be a better alternative. Look for products that state "enteric coated" on the label.

As for increased bioavailability, studies have shown that an enteric coating does enhance omega-3 absorption. But for the average consumer, it is more important to first pay attention to the dose of omega-3s from EPA and DHA rather than the fact that it is enteric coated.

Q: I'm not a fan of vegetables but don't want to miss out on key nutrients. Is a multivitamin/mineral supplement a good enough substitute?

A: Well, yes and no. Multivitamin/mineral products typically contain dozens of essential nutrients required for the maintenance of good health - everything from vitamin A to zinc! What they *don't* contain, however, are active plant compounds like flavonoids and carotenoids, among many others. Although they are not classified as essential nutrients, these and other plant-derived compounds have shown potential health effects ranging from antioxidant, antibiotic and anticancer effects to anti-inflammatory and cardioprotective benefits.

Another key reason why a pill cannot mimic the health benefits of vegetables: Fibre! Dietary fibre increases stool bulk, regulates blood sugar, reduces "bad" cholesterol levels and promotes satiety to make you feel full longer.

Your best bet is a wide variety of vegetables. If you still can't stomach them, puree milder ones like squash or dark leafy greens and 'hide' them in smoothies, pasta sauces, chili, soups and stews.

Sources: Belluzzi et al., 1994; 1996; 2002; Linus Pauling Institute at Oregon State University; Medline Plus Medical Encyclopedia; University of MD Medical Center Encyclopedia

Have a question? Just ask!
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What's trending in the world of supplements?

The fascinating field of natural health products is constantly evolving. Here are the latest facts, figures and trends about supplement use and new products to help you stay up-to-date.

Hot ingredients to watch for:

> Herring roe extract
> Lebifem (a fenugreek extract for female libido)
> Vitamin K2
> Seaweed & algae

Health Canada recently approved the use of **monk fruit** (a.k.a. luo han guo) extract as a natural sweetener. Expect to see it in food products and as a tabletop sweetener.

5 product trends that are going strong...

> GMO labelling

> 3rd-party certifications

> Gluten-free

> Allergen labelling

> Sustainability concerns

Consumer interest in non-GMO products is soaring!

32% of parents who learned about GMO through the news were significantly more likely to buy organic products.

EPA & DHA are still hot among the omega-3 market. Two fun facts:

DHA makes up 97% of the omega-3s in the brain, 93% in the retina and up to 60% in the heart.

EPA is broken down in the body to form anti-inflammatory compounds that help quell chronic inflammation.

Sources: New Hope 360; Organic Trade Association (2013); Nutracon 2013; Nutra-Ingredients USA

In season now: Fresh spring vegetables ripe for the picking!

Spring is the perfect time of year to get re-acquainted with garden-fresh herbs and vegetables! Head to your farmer's market for the highest quality seasonal picks and throw together a big superfood salad.

Radishes

These crunchy, peppery tasting root vegetables are a good source of vitamin C, an essential nutrient required for the maintenance of healthy bones, cartilage, teeth and gums. Plus, ten small radishes contain just 8 calories! Add thinly sliced fresh radishes to salads and sandwiches or try them roasted, steamed or stir-fried either whole or halved.

Green Peas

Fresh green peas start appearing in Ontario gardens just as spring turns to summer. A particularly good source of fibre, peas also contain health-boosting vitamins A and C as well as potassium. Toss a cup of peas into pasta and rice dishes, soups or stir-fries. Just be sure not to overcook them—a bright green colour means they are at their nutritional peak.

Chives

Like other members of the allium family, chives have a distinct oniony flavour and antiseptic properties. The long, thin green tops, or *scapes*, are used much like a fresh herb. Try adding finely chopped chives to pastas, soups, seafood and egg dishes.

Sources: Foodland Ontario, Health Canada's Nutrient Value of Some Common Foods (2008); Health Canada Monograph: Vitamin C (2007)

All about energy drinks: How they're classified, regulated and controlled

The regulation and safety of caffeinated energy drinks has become a controversial topic among regulators, public health officials and the beverage industry globally.

After numerous changes in the way they are classified and controlled by the government, coupled with recent health scares associated with specific brands, energy drinks have come a long way since their introduction in the late 1990s.

The question is, How are they regulated now and how do we make sure they are used safely?

Energy drink regulation in Canada: From natural health product to food

In Canada, all energy drinks were previously classified as natural health products. However, in 2011 Health Canada announced that caffeinated energy drinks (but *not* energy shots – see sidebar) would be transitioned from natural health products to foods. The purpose of this change was to support more informed consumer choices with consistent nutrition and labelling information.

So now that caffeinated energy drinks have been shifted under the regulatory umbrella of foods, does this mean they are considered regular beverages like carbonated sodas and colas? Not quite.

Energy drinks may look like and be consumed in the same fashion as drink products like soda, but in Canada they are actually *not* considered to be standardized beverages. Instead, energy drinks are defined as unstandardized beverages because they contain ingredients that are not permitted in standardized beverages including vitamins, minerals and amino acids. As for caffeine, certain standardized beverages such as colas may contain caffeine but only up to a certain amount.

During this transition period, Canadian consumers will notice some changes to caffeinated energy drink containers. Firstly, the maximum amount of caffeine allowed in

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What about energy shots?

Products known as "**energy shots**" are still classified and regulated as natural health products in Canada.

This is because they are not perceived as traditional foods due to their smaller volumes and different product representation.

a single serving (defined by the Reference Amount of 500 mL) cannot exceed 180 mg. This amount is similar to that found in a strong cup of coffee.

Secondly, caffeinated energy drink labels must now include:

- A nutrition facts table
- The amount of caffeine from all sources and a qualitative description of the amount (e.g., "High caffeine content")
- The amount of certain bioactive ingredients such as ginseng or taurine
- Appropriate allergen labelling

Also, the following caution statements must be listed on energy drink labels:

- "Do not consume more than (X) container(s)/serving(s) daily"
- "Not recommended for children, pregnant or breastfeeding women and individuals sensitive to caffeine"
- "Do not mix with alcohol"

What's going on stateside?

In the U.S., energy drinks may be considered foods *or* dietary supplements depending on how they are formulated. Most companies choose to add dietary ingredients like vitamins, minerals and amino acids to their products, making them dietary supplements. This means that the products do not have to be reviewed or approved by the U.S. FDA.

And while the FDA defines limits for caffeine in soft drinks (which are considered foods) as containing no more than 71 mg caffeine per 12-ounce soda, there is no upper limit for dietary supplements. This means that the majority of energy drinks available in the U.S. market do not have limits for caffeine content.

Safety concerns associated with energy drinks

Energy drink use among youth is a particular concern among the medical community, including the Canadian Medical Association and American Academy of Pediatrics.

In the U.S. and Canada alike, energy drinks are sold alongside soft drinks in corners stores and are readily available in restaurants and bars. Because of the way they are positioned in the marketplace, youth are more likely to consume an energy drink for unintended purposes such as hydration or in combination with alcohol. When mixed with alcohol or consumed in greater quantities than recommended, energy drink consumption can lead to dehydration, electrolyte disturbances, nausea, vomiting and heart irregularities.

Some important regulatory changes need to be made in the U.S., including setting upper limits for caffeine and adding label advisories and warnings for children and pregnant women. Until then, consumers should exercise caution when consuming energy drinks.

Energy drinks by the numbers

1997 The year the first caffeinated energy drink was introduced to Canada

$287 million Total energy drink sales in 2008

12% Proportion of Europeans who are considered high chronic users of energy drinks

4 to 5 times per week The definition of high chronic energy drink use

180 mg Amount of caffeine allowed in a single energy drink serving in Canada

2011 The year Health Canada declared their intent to regulate caffeinated energy drinks (but not energy shots) as foods rather than natural health products

Sources: Babu et al., 2008; Bernstein et al., 2002; DeNoon, 2012; FDA, 2013; Godefroy, 2012; Health Canada, 2012; Lee, 2013; National Post, 2012; Pollack and Bright, 2003; Seifert et al., 2011; Strain et al., 1994; Temple, 2009; Zucconi et al., 2013.

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We want to hear from you!

If you have a question or comment, or would like to suggest a topic for a future issue of NutraLiving, we're all ears! Just drop us a line:

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