



Hamilton Family Health Team

Better care, together.

Nutrition Nibbles

2016 Edition

**Breakthrough common nutrition myths,
see what's trending, catch up on latest research, and
get great tips from our team of Registered Dietitians.**

Brought to you by the Nutrition Promotion Group:

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and to Dragana Skokovic-Sunjic, BScPhm, RPh, NCMP, author of
*Clinical Guide to Probiotic Products Available In Canada.***

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MYTH

Frozen and canned vegetables and fruit are not as nutritious as fresh.

FACT

Nothing beats the taste of fresh produce in season. But frozen and canned produce can be just as nutritious since it's usually picked and packed at the peak of ripeness when nutrient levels are highest. Frozen or canned produce gives you benefits beyond health. It allows Canadians to enjoy a variety of vegetables and fruit year-round and is a practical choice for people living in remote areas. It's also sometimes more affordable than fresh produce. And cooking with frozen or canned produce can save you time in the kitchen! Read the labels: The healthiest choices are products that contain no added sugar, fat or salt.



Alzheimer's Awareness Month

Mediterranean Diet – Does it boost brain function?

Mediterranean diet is well known to be beneficial for cardiovascular health. But, did you know, that it has also been linked to maintaining healthy brain function? Following a Mediterranean diet has been linked with reduced risk of dementia and Alzheimer's. A randomized control trial examining cognitive function after 6.5 years of following a Mediterranean diet, found higher cognitive function in the Mediterranean diet groups compared to a low fat control group. Another recent study showed that following a Mediterranean diet increases preservation of white matter connectivity, thought to represent a 10 year delay in cognitive aging.

[http://www.alzheimersanddementia.com/article/S1552-5260\(15\)02125-1/abstract](http://www.alzheimersanddementia.com/article/S1552-5260(15)02125-1/abstract)

<http://www.ncbi.nlm.nih.gov/pubmed/19204158>

<http://jnnp.bmj.com/content/early/2013/04/19/jnnp-2012-304792>

Coconut Oil – Could it help or hinder?

There are claims that coconut oil could be used as a treatment, or even a cure for Alzheimer's disease. The claim is based on the theory that the nerve cells in the brains of people with Alzheimer's disease are unable to use glucose to produce energy properly and therefore 'starve'. The theory is that coconut oil may act as an alternative energy source by forcing the body to metabolize fats. However, there is also evidence to suggest that fats like coconut oil could indirectly result in increased levels of a protein called acetylcholinesterase which would work against the current treatments for Alzheimer's disease. A clinical trial examining the effects of coconut oil on memory, as well as the safety of coconut oil, in people with mild to moderate Alzheimer's disease, is currently being conducted. The results of this trial are due in mid-2017.

http://www.alzheimers.org.uk/site/scripts/documents_info.php?documentID=2211&pageNumber=4

Type 3 Diabetes – Is Alzheimer's disease another form of diabetes?

In Alzheimer's disease, the brain loses the ability to use glucose. Research conducted in 2005 (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2769828/>) suggests that problems with insulin production and uptake within the brain leads to the formation of plaque; plaque destroys receptors in the brain, resulting in insulin resistance and memory loss. Insulin in the brain helps the neurons absorb glucose for healthy functioning. It is thought that insulin's primary function in the brain is to form memories at synapses; if the insulin receptors on neurons are unable to take in glucose, the brain does not get the energy it needs to make new memories. The good news? What's good for the body is good for the brain: regular activity (to enhance insulin sensitivity) and a healthy diet (to maintain a healthy weight) are important factors in preventing and managing all types of diabetes.

Non-Smoking Week: January 18-24

National Non-Smoking Week (NNSW) has been observed for more than 30 years. It is one of the longest running and most important events in Canada's ongoing public health education efforts. Go to <http://nnsw.ca> for e-Help, Quitlines and research.

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MYTH

Sea salt is natural, so it is better for you.

FACT

Sea salt, just like kosher and gourmet salt, has about the same amount of sodium as table salt. It is not a healthier choice. Too much sodium can be harmful to your health. The differences between sea salt and table salt are taste, texture and how they are made. Table salt is mined from dried-up ancient salt lakes. Some table salts include iodine, a nutrient that helps prevent thyroid disease. Sea salt is made by evaporating seawater and tastes different depending on where it's from. Whichever salt you choose, use less. For a flavour boost, sprinkle food with orange or lemon juice, garlic, herbs or spices.



Heart Health Awareness

***NEW* from the Heart and Stroke Foundation**

Heart and Stroke Foundation recently released their new position statement regarding Saturated Fat Heart Disease and Stroke. The emphasis is on balanced eating, and "minimally processed foods", rather than providing specific numerical limits on Saturated fat content of the diet. They state the focus is on improving overall dietary quality, which will lead to reduced saturated fat intake, alongside reduced sodium intake and added sugars. So, the emphasis is on increasing vegetable and fruit intake, choosing a variety of protein sources (lean meats, lentils and legumes, seeds,), limiting sugary drinks and fast food, and cooking more meals at home that are minimally processed, rather than emphasizing a low-fat diet.

Refer to this link for the full position statement:

http://www.heartandstroke.com/site/c.iKlQLcMWJtE/b.9314923/k.E0FA/Saturated_fat_heart_disease_and_stroke.htm

Are All Trans Fats Bad for Your Health?

Not necessarily. The 2009 WHO Scientific Update on Trans Fatty Acids

(<http://www.nature.com/ejcn/journal/v63/n2s/pdf/ejcn200915a.pdf>) noted that, although ruminant trans fatty acids may negatively impact blood lipid levels, their intake "is low enough in most populations that they do not constitute a significant risk factor" for coronary heart disease. Similarly, a 2011 review

(<http://advances.nutrition.org/content/2/4/332.full>) found that study results suggest "at lower doses, ruminant trans fatty acids do not affect lipids and lipoproteins, but at higher doses, which are not attainable by diet, ruminant trans fatty acids may have similar effects as industrially-produced trans fatty acids". Furthermore, studies have generally shown an inverse association or no association between the consumption of trans fatty acids from ruminants and coronary heart disease, but that more research is needed to tease out the association between ruminant trans fatty acids and the risk of coronary heart disease, especially with regards to gender.

Can Probiotics Lower Cholesterol?

Some probiotics are being investigated for their ability to lower cholesterol. Currently, Cardioiva™ (Lactobacillus reuteri NCIMB 30242) is the only probiotic that has been shown in peer reviewed and published clinical trials to safely reduce total cholesterol by 9.14% and LDL-cholesterol levels by 11.6% in adults with moderately elevated cholesterol (1,2).

Cardioiva helps to reduce LDL and TC, in 2 ways: by reducing the amount of cholesterol your body produces and by reducing the amount absorbed from food. One capsule, with food, twice daily is required to produce similar results shown in trials. Cardioiva is available at some Shopper's Drug Mart and Loblaw locations. To learn more about Cardioiva click on the links below.

<http://newsroom.heart.org/news/daily-doses-of-a-new-probiotic-239562>

1. Jones ML, Martoni CJ, Prakash S. Cholesterol lowering and inhibition of sterol absorption by Lactobacillus reuteri NCIMB 30242: a randomized controlled trial. 2012b; Eur J Clin Nutr.
2. Jones ML, Martoni CJ, Parent M, Prakash S. Cholesterol-lowering efficacy of a microencapsulated bile salt hydrolase-active Lactobacillus reuteri NCIMB 30242 yoghurt formulation in hypercholesterolaemic adults. Br J Nutr. 2012 May; 107(10):1505-13. Epub 2011 Nov 9.

Eating Disorder Awareness Week: February 1 - 7

The National Eating Disorder Information Centre (NEDIC) is a Canadian non-profit providing resources on eating disorders & weight preoccupation. The NEDIC team discusses myths, facts and false stereotypes surrounding eating disorders.

Visit www.nedic.ca for more information!

Danielle's Place is a non-profit organization in Burlington that offers hope and healing, complimentary to the medical model, to those affected by an eating disorder. They promote a holistic and self-directed approach to healing through which families and individuals can begin, maintain or resume their healing journey. For more information, go to <http://www.daniellesplace.org>

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MYTH

There is no difference between a dietitian and a nutritionist.

FACT

Dietitians are one of a kind; they are uniquely trained to advise you on food, healthy eating and nutrition. Dietitians must be part of a regulatory body, just like doctors, pharmacists and nurses. The terms "Registered Dietitian," "Professional Dietitian" and "Dietitian" are protected by law. Only qualified health professionals can legally use those titles. In many provinces, there are no laws to protect the title "nutritionist."

March



March is Nutrition Month! This year's theme is: Take a 100 Meal Journey, making small changes to one meal at a time. Follow us over the course of this month as we discuss tips and strategies for making small healthy changes to your diet. We will be posting to the Hamilton Family Health Team Twitter feed and Yammer. Stay tuned!

A dietitian is your smart choice for credible advice on healthy eating

Healthy eating advice from a Registered Dietitian can help in many ways.

Numerous studies have shown that RD intervention can help to significantly lower health care costs as well as risk of chronic disease, and reduced hospital admissions.

○ **Diabetes Prevention and Management:**

- A Canadian study of patients with type 1 and 2 diabetes, found that A1c reduced 0.6% in diabetics receiving RD counselling vs only a 0.3% reduction with routine care, (<http://www.ncbi.nlm.nih.gov/pubmed/22533481>)
- **Results in Hamilton (2007)- Wendy Gamblen, RD,** Statistically significant lowering of A1c (8.0% to 6.6%), and fasting blood sugar, following intervention by Dietitian (<http://dcjournal.ca/doi/abs/10.3148/68.2.2007.81>)
- In the Diabetes Prevention Program Research Group studies, incidence of Diabetes was reduced by 58% in the intensive lifestyle group and 31% in the Metformin group compared to Placebo.- The intensive lifestyle group had a greater reduction than the medication! (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1370926/>)

○ **Cardiovascular Health:**

- DASH diet and weight management counselling lowered blood pressure (BP) by 16.1/9.9mmHg, DASH alone lowered BP by 11.2/7.5mmHg, vs usual diet controls (3.4/3.8mmHg); Significant differences were observed with the two active treatment groups (DASH and DASH and weight management) on both systolic and diastolic BP when compared with the usual diet control group (<http://archinte.jamanetwork.com/article.aspx?articleid=415515>)

○ **Malnutrition & Seniors Health:**

- Dietitians can help to lower malnutrition risk among seniors, resulting in lower hospitalization rates, lengths of stay, and readmissions.
- A randomized control trial comparing outcomes between a group of seniors receiving Dietitian care vs normal GP follow-up after discharge from hospital, found that RD care resulted in significant increases in mobility, weight, protein intake, and kcal intake after 12 weeks vs the GP routine care group (<http://www.ncbi.nlm.nih.gov/pubmed/23258932>)

○ **RD services Result in Healthcare Cost Savings**

- “For every \$1 spent on dietetic interventions, a Net NZ \$22-99 is saved in terms of improved health, total healthcare costs and productivity gains, depending on the intensity of the dietetic intervention.” Note: (NZ \$1.00= 0.92 CDN, Feb 3/2016) (<http://www.ncbi.nlm.nih.gov/pubmed/26668838>)
- In the Diabetes Prevention Program Research Group Studies, costs associated with lifestyle counseling were lower than the metformin intervention. Cost over 3 years per case of diabetes prevented (societally) was \$24,400 for lifestyle vs placebo, and \$34,500 for metformin vs placebo (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1360736/>)

As Dietitians, we are the only Regulated Nutrition Professionals uniquely trained to provide the best evidence based counseling to patients on:

- Infant feeding concerns, Childhood Nutrition and Activity, Healthy eating in Pregnancy,
- Renal Disease,
- Food Access,
- Heart Disease, and Hypertension
- GI disorders: celiac disease, Crohns, colitis, IBS,
- Seniors Nutrition, dysphasia, and malnutrition prevention.
- And many more!

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MYTH

All foods that contain probiotics will benefit your health.

FACT

Probiotics are “good” bacteria that are either naturally found in food or may be added to foods such as dairy products including yogurt, cheese and milk-based beverages. When eaten regularly, in the right amounts, probiotics may help keep your immune system healthy and help maintain the good bacteria in your intestine. Certain types of probiotics may help reduce some forms of diarrhea and symptoms of irritable bowel disease in some people. Not all foods with added probiotics will offer health benefits. We're still learning which probiotics are best, how much to take, and how long to take them for different health benefits.

APRIL

Irritable Bowel Syndrome (IBS)

IBS definition- chronic functional abdominal pain with diarrhea and/or constipation, not connected to a particular health condition.

Using Probiotics in IBS

Probiotics is an umbrella term for micro-organisms which are believed to have health benefits, specifically with digestion and with offering protection from harmful bacteria. The effects of probiotics are strain-specific: the benefits of one genus and species may not be seen in a similar genus and species; exact identification of the strain is important. Probiotics need to be administered alive, and in doses large enough to have an effect (often in the billions).

Prebiotics are non-digestible carbohydrates which provide food for probiotics. Food sources of prebiotics include bananas, artichokes, garlic, leeks, and onions, as well as in barley, rye and other whole grains. Prebiotics help probiotics to grow and thrive within the digestive system.

Probiotic bacteria are naturally found within the body, as well as within some types of fermented foods (ie yogurt, kefir, kimchee, miso, and sauerkraut). Of commercially available food products, Activia yogurt has been shown to be effective in the management of IBS. Dietary supplements, such as Align, TuZen, ibSium, and Digestive Care Daily Relief, have been shown to have Level I evidence to support their use in the management of IBS; other probiotic supplements, which are supported by Level II and Level III evidence, are also available.

For more information on the above products, and their supporting studies, visit: <http://www.probioticchart.ca/>

The FODMAP Diet

In recent years, there has been growing interest in dietary therapies for IBS, particularly a diet low in FODMAPs (Fermentable Oligosaccharides, Disaccharides, Monosaccharides And Polyols). The fermentation of FODMAPs by bacteria in the bowel is a normal and healthy part of digestion. However, for people with IBS, eating foods high in FODMAPs may trigger symptoms.

Research to date has shown that about 3 out of 4 people with IBS have some relief of symptoms while following the low FODMAP diet. While avoiding foods that are high in FODMAPs may improve symptoms, this is not a cure for IBS.

This is not a lifetime diet. A strict low FODMAP diet should only be followed for a period of 4-6 weeks. Then, under the guidance of a Registered Dietitian, FODMAPs are re-introduced to a level of acceptable tolerance. The type and amount of FODMAPs that trigger symptoms are identified so that a long term diet can be established.

[www.gastrojournal.org/article/s0016-5085\(13\)01407-8/pdf](http://www.gastrojournal.org/article/s0016-5085(13)01407-8/pdf)

Link to 1 hour educational video about the low FODMAP diet

<http://www.med.monash.edu.au/cecs/gastro/education/2013-public-lecture.html>

Using Natural Health Products (NHP) in IBS

Likely Effective: Peppermint oil, blond psyllium (also called psyllium husk). These have been determined to be likely safe.

Possibly Effective: Cascara, Chamomile, Karaya gum, Artichoke leaf, Clown's mustard plant, Aloe. These have been determined to be possibly or likely safe to use.

Insufficient evidence to rate: Turmeric, Fennel, Ginger, Melatonin, Coriander

Review of peppermint oil: decreases abdominal pain, diarrhea, flatulence, distention, and bowel movements. Proposed to relax the smooth muscles in the GI tract, and prevent hypercontractility of the gut.

Amount suggested for proposed benefit- Enteric coated peppermint oil capsules 1-2 capsules (0.2mL, 180-225mg, peppermint oil in each capsule) 3x/d. Enteric coated is recommended to reduce possible heartburn associated with peppermint oil.

Review of blond psyllium: Seed and seed husk are the components used in therapy. The soluble fibre acts as a bulking agent to encourage peristalsis and bowel movements in patients with constipation. In diarrhea, psyllium increases water holding ability and viscosity of stool to help slow GI emptying and improve consistency of stool. Psyllium also creates a gel, lubricating the stool and making it easier to defecate. In IBS overall, psyllium helps normalize bowel movements, and improve gas and abdominal pain.

Amount suggested for proposed benefit: constipation: 7-40g/d 2-4 divided doses, diarrhea 7-18g/d 2-3 divided doses, IBS: 10-30g/d 2-3 divided doses. These fibre ranges are high, keep in mind that TOTAL daily fibre intake is generally recommended between 21-25g/d for females, and 30-38 g/d for males. Total fibre is a combination of insoluble and soluble fibre (psyllium is a type of soluble fibre). Consider this when making recommendations regarding the daily amount of psyllium fibre. It is always a good idea to start at the lower ranges and gradually increase with adequate fluid intake, individual amounts needed to see improvements will vary.

Each of these NHP have different benefits for the symptoms of IBS (ie. diarrhea, constipation, or dyspepsia), therefore, check which NHP would be the most beneficial for your patient's presenting symptoms. For example, it would be unhelpful to recommend a NHP that has shown evidence for managing symptoms of IBS related to diarrhea, if your patient is presenting with constipation. When considering a NHP, review the evidence, safety data, potential drug interactions, and appropriateness for your patient, on an individual basis.

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MYTH

Everyone should eat a gluten-free diet.

FACT

A gluten-free diet is the only healthy way of eating for people with celiac disease or gluten sensitivity, but is not necessary for everyone else. Gluten is a type of protein found in grains like wheat, barley and rye, and any foods made with these grains. Unless you have celiac disease or a gluten sensitivity, or you are allergic to one of these grains, you don't need to avoid them. Whether the grain you choose is gluten-free (such as corn, rice, millet or quinoa) or not, enjoying more whole grains is a healthy choice. For good health, make at least half of your grain choices whole grain each day.



Celiac Awareness Month

Enzyme Therapy for Celiac Disease

The symptoms of celiac disease occur when undigested parts of the gluten proteins from foods cause an immune response, leading to damage to the small absorptive sites in the intestines (called villi). The damage to these villi means that there is poor nutrient absorption. Interestingly, there are some products on the market with enzymes said to help breakdown gluten. So, if an individual accidentally ate gluten, i.e. cross-contamination at a restaurant, there would be less of a reaction. There is some promising research with an enzyme called An-PEP; however, as of yet, a review of commercial enzyme supplements available on the market indicate that they are not effective at properly breaking down gluten. In summary, the only treatment for celiac disease is a strict gluten-free diet.

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0128065>

<https://celiac.org/blog/2015/08/study-demonstrates-current-enzyme-supplements-for-celiac-disease-ineffective>

Celiac Screening & Diagnosis:

The Canadian Celiac Association recommends the measurement of TTG or EMA for the screening of celiac disease. Serum IgA also needs to be measured with these tests to rule out possible IgA deficiency. Unfortunately, not all provinces cover the laboratory screening for celiac disease (Ontario is not covered). The gold standard for diagnosis of celiac disease is an intestinal biopsy, as there is a 10% chance of a false positive result. Patients who test positive on the blood test, or negative with symptoms of celiac disease, should have an intestinal biopsy. A person must continue to consume gluten after testing positive on a blood test. According to the Canadian Celiac Association, the equivalent of one to four slices of gluten containing bread should be consumed every day until the endoscopy for the biopsy to be accurate.

http://www.celiac.ca/?page_id=896

What is Non-Celiac Gluten Sensitivity?

Following a gluten-free diet requires careful planning to ensure that it is nutritionally complete; of particular concern are iron, calcium, B-vitamins and fibre. Individuals who have been diagnosed with celiac disease must follow a gluten-free diet for life, as exposure to gluten causes damage to the villi in the small intestine.

On the other hand, there are individuals without celiac disease who experience gastrointestinal symptoms with

the ingestion of gluten without any damage to the small intestine; often, extra-intestinal symptoms (i.e. headache, migraine, foggy mind, fatigue, joint or muscle pain, leg or arm numbness, depression, anxiety) are also present. Due to the restrictive nature of a gluten-free diet, the potential for nutritional inadequacy, and the increased cost associated with the purchase of specialty products, undertaking a gluten-free diet should be supported with the expertise and guidance of a Registered Dietitian. For individuals with non-celiac gluten sensitivity, there is some evidence to suggest that a low-FODMAP diet may be of greater benefit (for more information on FODMAP's, see the April 2016 edition of Nutrition Nibbles).

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4406911/>

Food Allergy Testing: Did You Know?

Blood tests for food specific IgG are widely available through alternative practitioners and some pharmacies and medical doctors. Despite the lack of evidence, they are promoted as a reliable method to uncover hidden food intolerances and allergies. The Canadian Society of Allergy and Clinical Immunology strongly discourages the practice of using food specific IgG testing for identifying or predicting adverse reactions to food. There is no body of research to support the use of this test for those purposes. The literature currently suggests that the presence of specific IgG to food is a marker of exposure and tolerance to food, hence positive test results for food-specific IgG are to be expected. Therefore testing of IgG to foods is considered irrelevant and should not be performed in cases of food related complaints.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3443017/>

<http://onlinelibrary.wiley.com/doi/10.1111/j.1398-9995.2008.01705.x/full>

What's New About Food Allergies in Infants and Children?

In 2013, a joint statement from the Canadian Pediatric Society and the Canadian Society of Allergy and Clinical Immunology, and endorsed by Dietitians of Canada, provided an update on the timing of the introduction of allergenic foods. For infants at high-risk of developing a food allergy (i.e. those who have a parent or sibling with an allergic condition, such as atopic dermatitis, a food allergy, asthma or allergic rhinitis), the recommendation is to not delay the introduction of any potentially allergenic foods, as doing so does not reduce a child's risk of developing a food allergy. The statement also recommends that, once allergenic foods are introduced, it is important to continue to offer them regularly (i.e. several times per week) in order to maintain a child's tolerance. Furthermore, the statement notes that there is no evidence that avoiding potential food allergens during pregnancy and lactation helps to prevent the development of allergies in children, and thus women should be advised against unnecessarily restricting their diet.

<http://www.cps.ca/en/documents/position/dietary-exposures-and-allergy-prevention-in-high-risk-infants>

Oh Nuts! What About Peanut Allergy?

Previous research has shown that rates of peanut allergy are lower in parts of the world where peanuts are introduced into a child's diet at an earlier age. Furthermore, recent research has shown that the early introduction of peanuts to high-risk infants helps to prevent the development of peanut allergy. The LEAP-ON study has shown that among high-risk infants who consumed peanuts during the first 5 years of life, and then avoided peanuts for 12 months, there was no increase in the prevalence of peanut allergy as compared to those who continued to include peanuts in their diet during the 12 month period. Locally, McMaster University is involved in research looking at whether children with a peanut allergy can be desensitized to peanuts through prolonged, low-level exposure...stay tuned!

<http://www.nejm.org/doi/full/10.1056/NEJMoa1414850#t=articleTop>

<http://www.nejm.org/doi/full/10.1056/NEJMoa1514209>

[http://www.jacionline.org/article/S0091-6749\(08\)01698-9/fulltext](http://www.jacionline.org/article/S0091-6749(08)01698-9/fulltext)

<http://www.thestar.com/life/2015/02/25/new-studies-provide-hope-but-no-cure-for-peanut-allergy-sufferers.html>

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MYTH

You can get enough vitamin D from your diet.

FACT

It is almost impossible to get your Vitamin D needs met by food alone. A combination of vitamin D rich foods, sunshine and a vitamin D supplement ensures adequate vitamin D.



Vitamin D – The Sunshine Vitamin

Vitamin D Rich Foods and Fortification:

Our bodies are able to produce vitamin D when our skin is exposed to the sun, but many factors (such as age, skin colour, and sunscreen) impact how much vitamin D we produce. Vitamin D is naturally found in fatty fish (especially salmon) and egg yolks. In Canada, fluid cow's milk, infant formula, and margarine are required by law to be fortified with vitamin D; yogurt and cheese are not fortified but may be made with fortified milk. Non-cow's milk beverages (such as goat milk, soy milk and other plant-based milk beverages) and orange juice, may be fortified with vitamin D, but be sure to check the Nutrition Facts label.

<http://www.hc-sc.gc.ca/fn-an/nutrition/vitamin/vita-d-eng.php>

Another Reason to Eat Your Fruits and Veggies!

Research suggests that carotenoids, such as beta carotene and lycopene, could reduce our skin's sensitivity to UV light and provide some protection against sun damage. Carotenoids are found in fruits and vegetables with the highest amount of lycopene being found in processed tomato products, i.e. tomato paste. Carotenoids are believed to neutralize the harmful effects of UVA and UVB rays by scavenging skin-damaging free radicals. These antioxidant micronutrients should be consumed regularly for at least 10 weeks to obtain their sun protection benefits. While consuming more carotenoids can help build up our skin's defense against the sun, they are not an adequate substitute for standard sun precautions such as protective clothing and sunscreen.

<http://ajcn.nutrition.org/content/96/5/1179S.long>

How Much Sun Exposure Do You Need to Make Enough Vitamin D?

The farther you live from the equator, the more exposure to the sun you need in order to generate. In Canada, a fair skinned person would need about 20 minutes of sun exposure to produce 15,000-20,000 IU's of vitamin D. Regular short exposures, i.e. 15-30 minutes two to three times a week, have been found to be much more effective and safer than intermittent long ones. If you're going to be out in the sun for longer periods, wear a hat to protect your face and light colored clothing that blocks the sun and keeps you cool or use a sunscreen.

Holick, MF (2011). *The Vitamin D Solution: A 3-Step Strategy to Cure Our Most Common Health Problems*. Plume 1st edition. ISBN 978-0452296886.

You Tube Video by
Dr. Holick: Sunlight
and Your Health: An
EnLIGHTening
Perspective

https://www.youtube.com/watch?v=oAAIMY_WtF_s

Canadians Should Be Taking a Vitamin D Supplement:

Canadians are at risk of vitamin D deficiency from October to April because winter sunlight in northern latitudes does not allow for adequate vitamin D production. Vitamin D is essential to the treatment and prevention of osteoporosis because it promotes calcium absorption from the diet and is necessary for normal bone growth. Some research suggests it may also ward off immune diseases, infection and cancer. The new guidelines recommend daily supplements of 400 to 1000 IU for adults under age 50 without osteoporosis or conditions affecting vitamin D absorption. For adults over 50, supplements of between 800 and 2000 IU are recommended. Canadians can safely take daily vitamin D supplements up to the current definition of tolerable upper intake level (4000 IU), but doses above that require medical supervision. There is a call for research into optimal doses and safe upper limits for vitamin D intake. Despite a great deal of new research in the past decade, these major clinical questions still have not been addressed.

<http://www.osteoporosis.ca/news/press-releases/new-vitamin-d-guidelines/>
<http://www.hc-sc.gc.ca/fn-an/nutrition/vitamin/vita-d-eng.php>

Talk to your Registered Dietitian for more information.

Recipe of the Month

Panko Crusted Salmon Recipe (*SimplyRecipes.com*) Makes 4 servings.

Ingredients

4 tsp olive oil
4 pieces thickly cut, boneless salmon (each 6 oz.)
Salt and pepper to taste
2 tbsp honey mustard or sweet-hot mustard
2 tsp chopped fresh thyme
2/3 cup panko bread crumbs
2 tbsp chopped Italian parsley
1/2 tsp Hungarian sweet paprika

Instructions

- 1) Preheat the oven to 400°F (convection or regular). Set the salmon on a foil-lined baking sheet skin side down. Sprinkle with salt and pepper.
- 2) In a small bowl, combine the honey mustard and 1 teaspoon of the thyme. In another small bowl, mix the panko with the remaining 1 teaspoon of thyme, 4 teaspoons of olive oil, parsley, and paprika. Add salt and pepper (a light sprinkle).
- 3) Using a small spoon spread the mustard mixture on the salmon; top with the bread crumb mixture.
- 4) Roast the salmon for 12-14 minutes (test at 10) or until it is almost completely firm to the touch and flakes when poked with a fork. Serve at once.



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MYTH

Organic foods are the safest and healthiest choice for you.

FACT

Both organic and non-organic foods are nutritious and safe for you to eat when you're making healthy choices. Many factors affect a food's nutritional value, such as where and how it was grown, stored, shipped and even how it was cooked. Organic foods may have more, about the same, or less nutrients than non-organic foods. And both organic and non-organic foods are grown and produced under strict regulations to make sure they are safe for you to eat. Like any food purchase, buying organic food is a choice.



The Dirt of Farming: Part 1 – Hormone and Antibiotic Use in Food and Eating Locally

How are growth hormones used?

In Canada, growth hormones are only approved for use in cows used for beef. They help to produce leaner beef at a lower cost to consumers by helping cows convert the food they eat into muscle more quickly and easily. Before going to market, the acceptable level of synthetic hormones left in beef must be zero. However, hormones also occur naturally in all animals, people and plants. So there is no hormone-free beef. Growth hormones are not used in cows that produce milk. They are also not used poultry and pork production.

How are antibiotics used?

Keeping livestock healthy is a top priority. Antibiotics are used (with veterinary supervision) to treat sick animals, prevent or manage disease or promote growth in some animals. Antibiotics are approved for use in beef, dairy cattle, chicken, laying hens, turkey, pork and fish. They may also be sprayed on fruit and given to honey bees. Milk cows who are on antibiotics are still milked but their milk is discarded for a certain period during and after antibiotic use. Antibiotic use must meet strict standards for human and animal safety.

Are there hormones and antibiotic residue left in food?

Health Canada sets maximum levels of hormones and antibiotics that can be left in food. These limits are set at levels far below the amount that could pose a health concern. Test results from the Canadian Food Inspection Agency show that hormone and antibiotic levels are rarely found to be above the recommended levels.

How are growth hormones and antibiotics regulated?

Health Canada highly regulates the use of growth hormones and antibiotics in Canada. To protect human and animal health, and the safety of our food supply, Health Canada:

- Reviews hormones and antibiotics for safety before approving them.
- Monitors the safety, quality and effectiveness of growth hormones and antibiotics.
- Sets rules for the proper use of hormones and antibiotics.
- Sets limits for hormones and antibiotics that can be left in food.

How are growth hormones and antibiotics monitored?

It's the job of the Canadian Food Inspection Agency to monitor the use of growth hormones and antibiotics. Food produced in Canada and other countries is regularly and randomly tested to check the safety levels of hormones and antibiotics. If the standards are not met, the food can be removed from the food supply.

<https://www.dairynutrition.ca/facts-fallacies/product-quality/cows-and-hormones>

<https://www.eatrightontario.ca/en/Articles/Farming-Food-production/Hormones-and-antibiotics-in-food-production.aspx#.V1644Rbrx0g>

<http://health.beefinfo.org/en/questions/basics/default.aspx>

<https://www.eatrightontario.ca/en/Articles/Farming-Food-production>

What does it mean to eat locally and why do it?

"Eat Local" is a movement which aims to minimize the distance between production and consumption. The top reasons most people eat local are for freshness, to support local economy and to know where the product came from. Although definitions of "local" vary, the University of Guelph, defines local being within 250 km from where the food is produced. Some people who only eat local foods call themselves locavores or localvores.

<https://www.uoguelph.ca/sustainability/living-green/eating-green>



How can I eat local?

For foods that are produced in Ontario, look for the Foodland Ontario sticker when shopping in the grocery store. You can also check out the Environment Hamilton

www.environmenthamilton.org and the Harvest Ontario www.harvestontario.com for farms in your area.

Where can I grow my own produce?

Hamilton offers community gardening throughout the city. The different types of community gardens, locations and costs can be found on the Hamilton Community Garden Network website: <http://hcgcn.ca/garden-directory/>

Talk to your Registered Dietitian for more information.

Recipe of the Month

Hummus Pizza *(Kate Park, RD)*

Ingredients

Hummus:

1 can of chick peas
1/4 cup of olive oil
juice from one lemon
1-2 cloves of garlic diced
salt and pepper to taste

Salad:

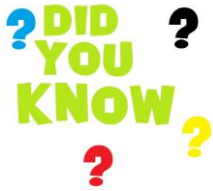
Grape tomatoes cut in halves
Spinach (washed)
Balsamic dressing (2 parts olive oil to
1 part balsamic dressing)
Greek style whole wheat pitas

Instructions

- 1) Drain and rinse chick peas. Blend all ingredients for hummus in food processor until smooth. Add salt and pepper as needed.
- 2) Spread hummus onto top of pita.
- 3) Top with spinach and tomatoes.
- 4) Add balsamic dressing.



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...every year, consumers in rich countries waste almost as much food as the entire net food production of sub-Saharan Africa (222 million tonnes).

... worldwide, we lose a soccer field of farm land every second, while adding two more people to the world's population.

...Canadians enjoy one of the lowest-cost "food baskets" in the world, spending only about \$0.10 of every dollar on food – compared to \$0.25 in Mexico and \$0.31 in Russia.



The Dirt of Farming: Part 2 – Organic Food & Grass Fed Beef

What is organic agriculture?

The National Standard of Canada for organic agriculture was first published in 1999. This document outlined the principles for organic agriculture: sound production and management practices to enhance the quality and sustainability of the environment, and the ethical treatment of livestock. Since then, they have been revised to include major international trading partners. To check out the latest 2015 standards, go to:

<http://www.tpsgc-pwgsc.gc.ca/ongc-cgsb/programme-program/normes-standards/comm/32-20-agriculture-eng.html>

What's the difference between organic and non-organic foods?

The difference between organic and non-organic (conventional) food has to do with how food is produced. Organic food like vegetables, fruit, eggs, milk and meat is produced without:

- Synthetic (human-made) pesticides, herbicides and fertilizers
- Genetically modified organisms (GMOs)
- Antibiotics or growth hormones
- Irradiation or ionizing radiation

How do I know if a food is organic?

The CFIA regulates the use of the Canada organic logo. Use of the logo is optional. It is only allowed to be used on products that have an organic content of 95% or more, and have been certified according to the requirements of the Canada Organic Regime. Any product which uses the Canada organic logo, or claims to have 70% or more organic ingredients, must include the name of the certification body that certified it.



How are organic foods regulated?

The Canadian Food Inspection Agency (CFIA) regulates all agricultural products which are labelled organic; producers must be able to show that organic claims are truthful and not misleading, and that specific requirements have been met. The CFIA oversees, monitors, and enforces the Canada Organic Regime. The Canada Organic Regime regulates all parties involved in the certification of organic products, and verifies that all applicable regulatory requirements, standards, and guidance documents are being met.

Do organic foods have less pesticide residue than non-organic foods?

Organic produce typically carries fewer pesticide residue than conventional produce. However, residues on most products – both organic and non-organic – don't usually exceed government safety thresholds. Organic farmers manage pests, weeds, and diseases primarily by physical, mechanical, and biological controls instead of with synthetic pesticides and herbicides. However, natural or plant-based pesticides may still be used in organic food production.

Is organic produce more nutritious than conventionally grown produce?

A 2009 systematic review examined the past 50 years' worth of scientific articles about the nutrient content of organic and conventional foods. The researches concludes that the nutritional differences between organic and conventional foodstuffs are minimal.

Bottom line: Like any food purchase, buying organic food is a personal choice.

What is the difference between grain-fed and grass-fed beef?

All beef cattle are raised on pasture (grass) after they're weaned. However, conventionally raised cattle are sent to a feedlot, where they're fed a grain-based diet (usually corn) before going to market. Grass-fed cattle forage exclusively their whole lives and must have continuous access to pasture during the growing season.

Is grass-fed beef more nutritious than grain-fed beef?

A number of studies have revealed that meat from grass-fed cows has nutritional advantages over conventionally raised cattle. Grass-fed beef has been shown to have a healthier fat profile (higher amounts of conjugated linoleic acid (CLA), *trans* vaccenic acid (a precursor to CLA), and omega-3 fatty acids). While the overall concentration of total saturated fatty acids (SFAs) is not different between feeding regimens, grass-finished beef tends toward a higher proportion of cholesterol neutral fatty acids. Grass-fed beef is also higher in antioxidants such as beta carotene and vitamin E, as well as cancer fighting antioxidants such as glutathione and superoxide dismutase, as compared to conventional beef. However, whether the amounts are large enough to be significant to health remains to be seen. Both grain-fed and grass-fed beef are nutritious options, though there will be a difference in taste and marbling.

<http://pediatrics.aappublications.org/content/130/5/e1406#ref-64>

www.organicfederation.ca/node/43

<http://thinkcanadaorganic.ca/organic101/#what>

www.inspection.gc.ca/food/organic-products/labelling-and-general-information/regulating-organic-products/eng/1328082717777/1328082783032

www.eatrightontario.ca/en/Articles/Farming-Food-production/Organic-Foods-and-Growing-Methods-FAQ.aspx

<http://ajcn.nutrition.org/content/90/3/680.full.pdf+html>

<http://www.theglobeandmail.com/life/health-and-fitness/health/is-grass-fed-beef-more-nutritious-than-regular-beef/article28948990/>

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2846864/>

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MYTH

People with high cholesterol should not eat eggs.

FACT

It's true that egg yolks have a lot of cholesterol, about 190 – 235 mg depending on the size of the egg. But cholesterol in foods has little impact on most people's blood cholesterol level. That's why the 2015 U.S. Dietary Guidelines, dropped its daily cholesterol intake limit of 300 mg. Not all experts, however, agree that there's no link between food cholesterol and blood cholesterol. Studies suggest that people with diabetes absorb more cholesterol from foods and are more responsive to its blood cholesterol-raising effect. For this reason, people with heart disease and/or diabetes should still limit cholesterol intake to 200 mg/d.



The Dirt of Farming: Part 3 – Genetically Modified Foods and Chicken and Egg Facts

What are Genetically Modified (GM) Foods?

The World Health Organization defines genetically modified organisms (GMOs) as, “organisms (i.e. plants, animals or microorganisms) in which the genetic material (DNA) has been altered in a way that does not occur naturally by mating and/or natural recombination”. The terms genetically modified (GM) and genetically engineered (GE) usually refer to the same concept and are often used interchangeably.

What GM foods are available in Canada?

Currently, four main genetically modified crops are grown in Canada: canola, corn, soybean and sugar beet. Most of these crops are exported to other countries. Four GM crops are available via import: alfalfa, cotton, papaya and squash. Few GM foods are consumed whole. The majority of GM foods are used in processed ingredients and foods such as oils, soy lecithin and high fructose corn syrup. Recently, two GM foods, the Arctic Apple and AqaAdvantage salmon, were approved for production and sale in Canada.

How are GM foods regulated in Canada?

Health Canada completes a thorough safety assessment on all GM foods before they are allowed to be sold. A safety assessment can take many years. Canada does not currently use post-market monitoring to evaluate the safety of GM foods. Visit the link below for a full explanation of how GM foods are regulated in Canada.

http://www.hc-sc.gc.ca/sr-sr/pubs/biotech/reg_gen_mod-eng.php

What are the benefits of GM foods?

Producer benefits: reduced loss, lower costs and faster time to market (ie. AqaAdvantage Salmon)

Environmental benefits: reduced insecticide use, improved soil quality

Consumer benefits: lowered food costs due to increased yields, improved sensory properties of foods (ie. GM apples have less bruising and browning) and improved nutrient profile (ie. have more of a certain nutrient like vitamin A found in Golden Rice, a GM rice crop used to fight malnutrition in developing countries)

What are the concerns of GM foods?

Human Health: gene insertion could lead to the generation of toxins and to the creation of allergens - although there has been no evidence to support this; nutrient malabsorption (ie. GM soybeans have a component that interferes with the breakdown of protein which non-GM soybeans do not have).

Environment: gene insertion and flow into other crops; possible reduced biodiversity.

Socioeconomic: monopolization of seed and agricultural markets by GM companies.

<http://www.eatrightontario.ca/en/Articles/Food-technology/Biotechnology/Novel-foods/Understanding-Genetically-Modified-Foods.aspx#.V63yQhbrx0g>

Bottom line: GM foods available in Canada are considered safe for us to eat. While Canada does produce some GM crops, most of them are exported. Labelling GM foods is not required in Canada, so it can be difficult to know if a food product contains GM ingredients. If you are concerned about eating GM foods, call food companies to see if they use GM ingredients, look for “GMO free” foods, try buying organic foods or plant your own garden with GMO-free seeds.

How are chickens raised?

In Canada, all chickens raised for meat (called broilers) are kept in barns. They are never kept in cages. They are free to roam around the barn, they are able to walk about and spread their wings, and they have access to feed and water 24 hours a day.

What’s the difference between “free range” and “free run” chickens?

In Canada, there is no legal definition for free run and free range. Free range chickens are generally allowed to have access to the outdoors (as weather permits). Free run chickens are typically raised in an open barn, and they can move freely within the barn. All chickens raised for fresh meat in Canada are considered to be free run.

What do the different labels on chicken eggs mean*:

- **Standard or conventional** – Hens are raised in battery cages without access to nest boxes, perches or litter. Each cage houses 5 to 7 hens, and movement (such as wing-flapping, nesting, and perching) is severely restricted. Most egg-laying hens in Canada are raised in battery cages.
- **Furnished or enriched cage** – The debate over the use of battery cages has led to the use of furnished or enriched cages. Hens are provided with a nest area and perches, but the cage is still crowded and the birds’ movements are still restricted. Eggs from these hens may also be labelled “Comfort-Coop Eggs” or “Nest-laid Eggs”.
- **Free-run or cage-free** – Hens are not confined to cages and can move freely within an open barn. Standard practice is to provide hens with access to nest boxes and they may also be provided with perches and litter.
- **Free-range** – Hens have access to all the features described in the free-run system, and are also given access to the outdoors (weather permitting).
- **Organic** – Hens are provided with nest boxes, perches and dust-bathing materials. They also have access to the outdoors, and have a guaranteed amount of space. In addition, hens are fed 100% organic feed which is free of additives and animal by-products. The Canadian Food Inspection Agency (CFIA) regulates the organic-certifying organizations.

**It is important to note that in Canada, except for organic eggs, there is no independent inspection or verification system to ensure hens are raised in the way described on the label.*

Bottom line: Regardless of which type you buy, all eggs deliver plenty of nutrition. They’re an excellent source of protein, vitamin B12 and selenium. (Brown eggs and white eggs are equally nutritious; shell colour depends on the breed of the hen.)

<http://www.chicken.ca/ask-us/>

<http://www.choosencagefree.org/what-do-different-egg-labels-really-mean>

<http://www.eggs.ca/onthefarm/article/9/the-laying-barn>

<http://www.virtualfarmtours.ca/en/eggfarms/index.html>

<http://www.realdirtontofarming.ca/assets/docs/flipbook2014eng/#p=9>

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MYTH

Superfoods will keep you super-healthy.

FACT

Sorry! No food has superpowers to keep you healthy on its own. Even if a food is bursting with a beneficial nutrient, your body needs more than that to be healthy. Unfortunately, there's no "superfood" definition, and the term is sometimes used to market trendy, expensive foods, like goji berries and açai berries, that don't always live up to their superior claims. In fact, some basic foods that aren't called "super", such as apples, can be equally nutritious, less costly, and more widely available. Enjoying a diet that is rich in a variety of healthy foods, not just the trendiest, is key to good health.



Breast Cancer Awareness Month

1 in 9 Canadian women will be diagnosed with breast cancer

Lifestyle Factors

- You have a higher risk of developing cancer if you are overweight.
- Having one or more drinks per day is associated with a slight increase in breast cancer risk.
- Eating well will help against developing cancer – eat lots of veggies and fruit, lots of fibre, and little fat and sugar. Red meat and processed meat increase your risk of cancer.
- Regular physical activity helps protect against cancer.



About one-third of all cancers can be prevented by eating well, being active and maintaining a healthy body weight.

What about the controversy with soy foods and breast cancer?

Foods produced with soy (ie. veggie burgers, tempeh, tofu, miso, soy flour, etc.), contain isoflavones, which are a phytochemical (plant chemical) similar to estrogen. There is concern that these "estrogen-like" plant compounds will result in an increased risk of breast cancer. The research regarding these concerns mainly comes from studies on mice and rats. However, soy is metabolized differently in humans than it is in rodents. Additionally, not all animal studies have shown negative effects.

Another interesting fact is that isoflavones also have anti-estrogen properties. They bind to estrogen receptors, blocking natural estrogen. Since isoflavones are weaker than natural estrogen, they actually reduce the effects of estrogen. The isoflavones also encourage the production of a protein, which binds to estrogen in the blood, further reducing the binding ability of estrogen to its receptors. Also, isoflavones have anti-inflammatory and anti-oxidant properties, which can reduce cancer growth.

To date, human studies examining the effects of soy on breast cancer have been observational in nature. Research on healthy women and breast cancer survivors have shown either no adverse relationship between soy exposure and breast cancer, or a protective effect.

The majority of human studies report that soy is likely safe for breast cancer survivors when consumed in amounts found in a typical Asian diet (3 servings/d). However, it is recommended to avoid the use of soy supplements, as less is known about the health effects of these isolated forms.

Bottom Line: Despite mixed information in animal studies on breast cancer and supplement use, studies in humans have not shown harm from eating soy foods. Moderate intake of soy foods appears to be safe for breast cancer survivors and the general population, and may even lower breast cancer risk. It is prudent to avoid soy supplements, until further research is done.

To learn more about our fight against breast cancer and how you can show your support by taking action against this disease, go to

<http://www.cancer.ca/en/get-involved/events-and-participation/find-an-event-near-you/breast-cancer-awareness-month-on/?region=on#ixzz4LInNnn3o>

References:

<http://www.cancer.ca>

PEN- Allison Duncan, *Soy and Breast Cancer: What Dietitians Need to Know*

Talk to your Registered Dietitian for more information.

Recipe of the Month

Pineapple Tofu Power Smoothie

(Kate Park, RD) Makes 2 servings

Ingredients

- 1 block of soft tofu
- 1 banana
- 1 cup low fat milk (regular or almond)
- 1.5 cups pineapple
- 2 tbsp ground flax
- 1 cup loosely packed spinach

Instructions

- 1) Combine all ingredients in blender and blend until smooth.



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MYTH

If you eat too much sugar, you'll get diabetes.

FACT

You will not get diabetes from eating sugar. It's wise, however, to limit your sugar intake. Foods that are high in sugar, such as cookies, candies and soft drinks, are often low in nutrients and high in calories. Diets with too many calories can lead to weight gain, and being overweight is one of the main risk factors for type 2 diabetes. You can reduce your risk of developing type 2 diabetes by eating a healthy diet, maintaining a healthy weight and being physically active.



Diabetes Awareness Month

What is a Glycemic Index vs. Glycemic Load?

The Glycemic Index (GI) ranks carbohydrate foods according to how much they raise blood sugar levels as compared to a standard food. The standard food (white bread) is given a value of 100, which is equivalent to pure glucose. Low GI foods (55 or less) release glucose more slowly and steadily; most fruits, vegetables, and legumes are in this category. Medium GI foods (56 - 69) and high GI foods (70 - 100) cause blood glucose levels to increase more quickly; as a general rule, the more processed the food the higher the GI value.

The GI of a food can change depending on how that food is prepared and served; including fat, fibre, and protein as part of a meal or snack will help to lower the GI response. The GI response may be different from one person to the next; also, the same person might get a different GI response depending on their age, their level of insulin resistance, their level of activity, as well as the time of day a food is consumed. Using the GI is only one part of a healthy eating plan.

The glycemic load (GL) of a serving of food puts together its carbohydrate content and its glycemic index to give a more accurate estimate of how much it will affect blood glucose level. Once you know a food's glycemic index and the carbohydrate content of the amount you plan to eat, you can calculate your portion's glycemic load. Whereas the glycemic index is a good way of making food choices, glycemic load helps to work out how different sized portions of different foods compare with each other in terms of their blood glucose raising effect.

For more information, lists of low, medium, and high GI foods, and patient handouts, please visit the following: <http://www.diabetes.ca/diabetes-and-you/healthy-living-resources/diet-nutrition/the-glycemic-index> <http://guidelines.diabetes.ca/CDACPG/media/documents/patient-resources/glycemic-index.pdf>

For more information on how Glycemic Index and Glycemic Load work together, please visit the following: <http://www.diabetesselfmanagement.com/nutrition-exercise/meal-planning/carbohydrate-counting-glycemic-index-and-glycemic-load-putting-them-all-together/>

A Review of Some Natural Health Products (NHPs) in Diabetes Management

Milk thistle: Randomized controlled studies of three months duration or longer have shown that silymarin, a constituent of milk thistle, lowers HbA1C levels $\geq 0.5\%$ in adults with type 2 diabetes. Silymarin seems to decrease insulin resistance and have a protective effect on the pancreas. This is thought to be due to silymarin's antioxidant effects. Oxidative stress is thought to contribute to pancreatic beta-cell dysfunction, reduced insulin secretion, and insulin resistance.

Amount suggested for proposed benefit: A specific silymarin product (Legalon, Madaus GmbH, Cologne, Germany) 200 mg three times daily for 4 months to one year has been used. A different silymarin product (Luna Co., Cairo, Egypt) 200 mg daily for 120 days has also been used.

Honey: Some human and animal studies suggest that honey modestly decreases fasting blood glucose, HbA1C, cholesterol levels, and weight in patients with diabetes. Fructose, one of honey's main constituents, is thought to work synergistically with glucose to enhance intestinal fructose absorption and/or stimulate insulin secretion in the gastrointestinal tract and pancreas. Other reviews suggest that oligosaccharides, rather than fructose, have a role in honey's antidiabetic effects. Honey is considered likely safe in adults and children over 1 year of age. However, honey produced from the nectar of Rhododendrons may be unsafe. This type of honey may lead to cardiovascular symptoms.

Amount suggested for proposed benefit: 1-2.5 g/kg or 0.5 mL/kg daily for 8-12 weeks of natural unprocessed honey.

Magnesium: In people with existing type 2 diabetes, hypomagnesemia occurs in 25% to 38% of patients. Also, hypomagnesemia is more common in people with poorly controlled diabetes. Some research suggests magnesium supplements can decrease fasting blood glucose and improve insulin sensitivity. Magnesium is likely safe when used orally and appropriately. However, magnesium could possibly be unsafe when used orally in excessive doses. Doses greater than the tolerable upper intake level (UL) of 350 mg frequently cause loose stools and diarrhea.

Amount suggested for proposed benefit: 350 mg daily.

Magnesium for Diabetes prevention? Higher dietary magnesium intake is associated with lower fasting insulin concentrations and a reduced risk of developing type 2 diabetes in adults and obese children.

Amount suggested for proposed benefit: A 100 mg/day increase in dietary magnesium intake is associated with a 14% to 15% risk reduction for developing type 2 diabetes. This is equivalent to the magnesium found in 4 slices of whole grain bread, 1 cup of beans, 1/4 cup of nuts, 1/2 cup of cooked spinach, or 3 bananas.

Other NHPs:

Possibly effective: Alpha-lipoic acid, milk thistle, chromium - these have been shown to be likely safe or possibly safe.

Insufficient reliable evidence to rate: Cassia cinnamon – safe when used orally and appropriately, but may be possibly unsafe when used orally in high doses, long term. Bitter melon – likely safe in most people, but likely unsafe in pregnancy.

Possibly ineffective: garlic, omega 3 fats (DHA and EPA), selenium

Bottom Line: *NHPs are not recommended for glycemic control in individuals with diabetes. There is insufficient evidence about their efficacy, and long term safety has not been established for many products. Most studies investigating NHPs are single small trials, so it would be premature to recommend their widespread use.*

<http://guidelines.diabetes.ca/browse/chapter21>

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Health At Every Size Approach to Weight Management

The key tenants of the Health at Every Size (HAES) approach are as follows:

- Focus is on body acceptance vs weight loss. People strengthen their ability to take care of themselves and sustain improvements in health behaviors when they learn to value their body right now.
- Following your body's own hunger & satiety cues, rather than dietary restriction of foods. This has also been termed intuitive, or mindful eating.
- Choose enjoyable activities, rather than structured exercise.

The focus is on behavior changes, rather than weight, as a goal for improving health outcomes. Remember weight is not a behavior; therefore it should not be a lifestyle goal! Weight loss may occur with behavior changes, but it is not the focus.

MYTH

FACT

Weight loss increases life expectancy.

- Observational studies have in fact found the opposite in that intentional weight loss of obese individuals resulted in increased risk of premature death.
- Short-term studies have shown improvements in health measures with weight loss, however weight changes are also accompanied by behavior changes. So, was the improvement in health status related to the weight loss itself or the health behavior changes? In fact, liposuction studies that reduced fat mass, but made no change in health behaviors found that there was no change in health measures (triglycerides, insulin sensitivity, etc.). Interestingly, improvement in glycemic control, have been found in intervention studies early on even before large weight loss has occurred.

Therefore, behavior change as opposed to the weight loss itself may play a greater role in health improvement!

MYTH

FACT

Anyone can lose weight, and maintain weight loss through diet and exercise.

- Mostly all long-term studies show individuals regain all the weight they lost.
- Experts from the National Institutes of Health (NIH) acknowledged that majority of the weight lost is regained in 5 years.

MYTH

Weight loss is the only route overweight/obese individuals can improve health.

FACT

- The pursuit of weight loss results in weight cycling, which has been shown to increase morbidity and mortality.
- Emphasis on weight loss contributes to weight bias and discrimination, and encourages development of eating disorders. Individuals may avoid health visits, and exercise due to the fear of stigmatization.
- Weight loss improves health in obese individuals long-term is an untested hypothesis.
- Dieting can increase the risk of osteoporosis due to lowered bone mass.
- Changes in health indicators can occur with behavior changes, independent of weight loss, ie., blood pressure, lipids, glucose and others.

MYTH

Adiposity (“obesity”) has a significant morbidity/mortality risk.

FACT

- NHANES, a large representative cohort survey done in the USA, found that the highest longevity was found in the overweight group; this finding has been replicated in other research.
- Obesity paradox- increased survival of obese persons with type 2 diabetes, hypertension, and cardiovascular disease than thin persons with these diseases.
- Life expectancy has increased during the same time weight has increased.
- Not a causal conclusion. Obesity has been found to be associated with disease risk, however causation has not been shown.
- When epidemiological research controls for other factors, such as: fitness, nutrient intake, weight cycling, socioeconomic status, then disease risk no longer exists or is largely reduced.
- Body image has a larger impact on disease risk than actual weight; in locations where weight is not stigmatized, BMI has a limited association with health. (ex., in South Pacific).

For more information, check out:

Websites: <https://www.sizediversityandhealth.org/index.asp>

Videos: https://www.ted.com/talks/sandra_aamodt_why_dieting_doesn_t_usually_work?language=en

<https://www.youtube.com/watch?v=H89QQfXtc-k>

HAES curriculum: <https://haescurriculum.com/>

Blog: Health At Every Size® Blog at <http://healthateverysizeblog.org>

Book: The Surprising Truth About Your Weight- Health At Every Size; Linda Bacon PhD, 2010

Articles:

Weight Science: Evaluating the Evidence for a Paradigm Shift. Bacon L, Aphramor L. Nutrition Journal 2011 (10:9)

<http://nutritionj.biomedcentral.com/articles/10.1186/1475-2891-10-9>

Success: Lives Changed, Not Pounds Lost. Ann Douglas

http://www.radiancemagazine.com/issues/1998/spring_98/health.html

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