Successful diabetes management result of positive attitude, education

Here we are with our third Canadian Diabetes Care Professional Pack and it seems as though we haven't even started to address many of the questions asked in the survey sent out with the first pack. A number of common topics raised by the survey related to women's health and diabetes, specifically preparing young women with diabetes for pregnancy, and counseling pregnant women on coping with gestational diabetes. Statistics are particularly worrisome for aboriginal women. According to the Health Canada publication Diabetes In Canada: National Statistics and Opportunities for Improved Surveillance, Prevention and Control, a study revealed that as high as 8.4% of aboriginal women will develop gestational diabetes and of these 70% will develop full blown diabetes within three years of delivering their babies. It would be really helpful to have input from educators who have counseled their clients considering becoming pregnant, and those who have developed gestational diabetes, so that we may share your experiences with your colleagues.

Several references were made for the need to encourage clients to adopt and maintain positive attitudes and to help them avoid feeling that, regardless of what they do, inevitably complications will set in. In fact, many educators commented that mental health and a sense of self-worth and optimism are equally important in the successful management of diabetes. By giving their clients the proper tools to achieve a positive sense of self, it allows them to feel in control and optimistic about who they are and how they are managing their lives. If you have input that would be helpful to your colleagues, please give us a call or an e-mail.

Karen Graham has given us a new meal addition (see page 2) and also mentions a special aboriginal initiative with Health Canada and the National Aboriginal Diabetes Association (NADA) which has produced a soft-cover Aboriginal version of Meals for Good Health. Aboriginal communities (or organizations working with Aboriginal communities or Metis or urban Aboriginals) are able to order a limited number of free books.

This initiative was announced at the First National Aboriginal Diabetes Association Conference held in Winnipeg in June, 2000. The two conference luncheon meals were prepared from the Meals for Good Health menus, and were a tasty compliment to the announcement by NADA.

This special initiative will help meet the need by Aboriginal communities for a valuable nutrition resource. Please make Aboriginal communities in your area aware of this special initiative. For more information contact NADA at 204-927-1220 or email: nada@escape.ca

Special Book Discount

Meals for Good Health is now being sold in clinics, diabetes education centres and Canadian Diabetes Association offices for the new low price of $22.95. On your next box purchase of 20 books you will also receive a 40% discount from the $22.95 and pay only $13.77 per book. Use the enclosed order form to order books for your clinic or diabetes education centre.
**Aspartame composition and metabolism**

Aspartame (brand name NutraSweet) sweetener is a dipeptide of the amino acids, L-aspartic acid and L-phenylalanine (as the methyl ester). Individually, these amino acids are not sweet but linked together they produce a sweet taste. Although this compound does not occur naturally, the components are identical to those commonly found in meats, vegetables, fruits, dairy products and cereal grains.

Aspartame is hydrolyzed during normal digestion to its constituent amino acids and to methanol. These components are then absorbed, metabolized and excreted in the same manner as when they occur in other foods eaten daily. Aspartame contributes very small quantities of these components to foods and beverages as compared with the amounts present in other common foods.

During digestion, hydrolysis of the methyl group by intestinal esterases yields methanol. Once the methyl group is removed, the resultant dipeptide is split at the muscosal surface by dipeptidases, and both free amino acids are absorbed. Aspartic acid and phenylalanine may be incorporated into body proteins or used for energy. The methanol is rapidly metabolized to formate and is excreted as such in the urine or further metabolized and exhaled as carbon dioxide and water. When completely metabolized, one gram of aspartame supplies 16.8 kilojoules, or 4 calories of energy. However, since so little is used to sweeten foods and beverages, aspartame does not contribute a significant amount of energy.

**Aspartame consumption**

Aspartame (NutraSweet) is the sweetening agent used in Equal sugar alternative. Prior
to approving aspartame in 1981, the Health Protection Branch (HPB) of Health and Welfare Canada (HWC) reviewed more than 100 studies in at least four animal species. Independent laboratories conducted controlled clinical studies in normal humans, both adults and children. In addition, researchers studied persons with diabetes, obesity, individuals heterozygous for phenylketonuria, and lactating women. These animal and clinical investigations make aspartame a thoroughly studied food additive. In publishing its intent to approve aspartame, HPB stated “The data on the safety of aspartame are the most comprehensive ever received by the HPB in support of food additive”. The safety of aspartame is recognized not only by the HPB, but also by the US Food And Drug Administration (FDA), the European Economic Communities, the World Health Organization and the regulatory agencies of over 80 other nations. In 1990, Health and Welfare Canada prepared a review of aspartame in response to questions regarding its use in Canada. Nutrition recommendations: The Report of the Scientific Review Committee concluded that aspartame is safe for use by the average individual and that current consumption levels are well below the ADI for all segments of the Canadian population.

Use during pregnancy and lactation
It is safe for pregnant women to use products sweetened with aspartame brand sweetener. The Federal-Provincial Subcommittee on Nutrition has stated that “Evidence suggests that consumption of aspartame by pregnant women does not pose a health hazard.” Reproductive studies indicate that consumption of

### LifeScan — New test strip makes alternate site testing possible

Patient dissatisfaction with the pain associated with fingersticks has fuelled new research into alternative testing techniques that lower the barriers to testing. Techniques that require significantly smaller blood volumes are less invasive and therefore less painful. Reducing the discomfort of testing can encourage patients to test more regularly, and ultimately help them maintain better control of their diabetes.

**A new alternative to fingersticks**
LifeScan Canada is giving Canadians with diabetes a new alternative to painful fingertip blood glucose testing with the launch of the first test strip in Canada to use blood samples obtained from the arm. The new FastTake® test strip with FastDraw™ design makes it easier and less painful for Canadians to test regularly.

**Less blood, more comfortable sampling**
This new alternate site testing method is made possible with the FastTake® test strip because the new strip needs only a small blood sample of 1.5 µL - 40 per cent less than the original FastTake® test strip, and 25 to 60 per cent less than competitive strips. The test strip’s FastDraw™ Design quickly and automatically draws the right amount of blood into the strip, making it easy and convenient to obtain a sample. The strip also features a confirmation window that helps the user see when a sufficient sample size has been provided. This in turn helps ensure an accurate test result by encouraging proper testing technique.

**End-fill testing**
The new FastTake® test strip “end-fill” blood application means the patient does not have to aim a drop of blood at a tiny dot on a strip. All that is required of the patient is to touch their finger with blood sample to the end of the strip. The new strip also makes testing easy for left-handed people since the blood is applied from the top of the strip (not the side).

**Alternate sites - viable testing option**
In a U.S. clinical study comparing arm testing with fingertip testing, more than 70 per cent of participants reported no pain or much less pain associated with arm testing than with fingertip testing.

**Patients prefer FastTake test strips**
The new strip was tested in a recent U.S. clinical study with users of LifeScan and competitive meter brands. Ninety-two per cent of the participants found the FastTake test strip to be easy or very easy to use. And thanks to the new end-fill blood application, patients also found that the new test strip was easier to use than the test strips they were currently using.

**FastTake Meters - easy, accurate, preferred**
The new strips are used with the FastTake® Blood Glucose Monitoring System, which features accurate results in as little as 15 seconds and a 150-test memory, requires no cleaning, and includes the new Penlet® Blood Sampler for less painful testing. A recent study showed that not only do the majority of patients prefer the FastTake® Meter to their current brand, they would test their blood glucose more frequently with a FastTake® Meter.

**Arriving at pharmacies soon**
The new FastTake® test strips will be available nationally in late summer 2000, and will be sold in counts of 25, 50 and 100. A package of 10 strips will also be included in the FastTake® System Kits.

**About LifeScan Canada**
LifeScan Canada is a member of the Johnson & Johnson Family of Companies. For more information on our products and services or the LifeScan Education Institute, call the LifeScan Customer Care Line toll-free at 1 800 663-5521. You can also visit our Web site at www.lifescan.ca.

1. If puncturing the arm, patients should select a soft, fleshy area (away from bone) that is free of visible veins or excess hair.
4. Four-week study conducted by Dr. B. St-Pierre of the Godin & St-Pierre Inc. Endocrinology Research Centre: December 1998.

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**Brita**
We all know the importance of water consumption as it relates to healthy living but it’s hard to know exactly what’s in your tap water. The Brita® Filter System improves the taste and quality of tap water by virtually eliminating lead, chlorine, bad taste and odour. The Brita Pitcher Filter System is ideal for use around the home, office and your clinic. Water plays a necessary role in meal planning. Many of your clients will want to lose extra pounds so an increase in water consumption should become part of their meal plan, because it helps the body metabolize stored fat more efficiently, reduces excess fluid retention and helps maintain good muscle tone. Best of all it quenches thirst with no calories, no fat and no cholesterol. Those clients not previously involved in regular exercise will, of course, need to know the importance of hydration during exercise.

Brita has an informative web site
— www.brita.ca
aspartame at many times the current consumption levels poses no risk to the mother or fetus.

The only possible exception is women with the rare genetic disease phenylketonuria (PKU). That said, RL London reviewed the body of information relating to aspartame consumption during pregnancy and concluded that it is safe to use during pregnancy for healthy women as well as those heterozygous for PKU.

Aspartame ingestion is also safe during lactation. Breast milk levels of aspartate, phenylalanine, and tyrosine (which is derived from phenylalanine) rise slightly after a 50mg/kg bolus dose of aspartame (equivalent to a 60 kg person consuming twenty 280mL cans of diet soda), from the fasting range to the postprandial range. Thus, except in homozygous PKU, aspartame is safe for a breastfeeding woman to consume and has no significant impact on the infant’s daily intake of amino acids.

Phenylketonuria (PKU)

Phenylketonuria is a rare genetic disease, usually detected at birth, that alters the body’s ability to metabolize phenylalanine. In Canada, it occurs approximately one in 15,000 births. Individuals with PKU cannot effectively metabolize the amino acid phenylalanine. Routine screening of newborns ensures early detection and subsequent treatment with diets low in food that contain phenylalanine, allowing these children to enjoy healthy lives.

The essential amino acid phenylalanine is common in many protein foods; those with PKU are placed on a phenylalanine-restricted diet from birth, usually followed until adolescence or later. Women with PKU must remain on the diet throughout pregnancy.

The phenylalanine from aspartame is metabolized

### CRYSTAL LIGHT

**CRYSTAL LIGHT BERRY SLIM**

- PLACE 1 cup prepared CRYSTAL LIGHT Strawberry-Kiwi Low Calorie Drink Mix, 1/3 cup sliced strawberries or peaches and 2 Tbsp plain yogurt in blender container.
- BLEND on high speed until smooth. Makes 2 cups.

**Canadian Diabetes Association Food Choice Value**

<table>
<thead>
<tr>
<th>Per Serving</th>
<th>Calories</th>
<th>Carbohydrate</th>
<th>Protein</th>
<th>Fat</th>
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</thead>
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<tr>
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<td>4.1 g</td>
<td>0.9 g</td>
<td>0.5 g</td>
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</table>

**CRYSTAL LIGHT MELONADE**

- PEEL and slice 1/3 ripe small cantaloupe. Place 1 cup prepared CRYSTAL LIGHT Tangerine-Grapefruit Low Calorie Drink Mix and prepared fruit in blender container.
- BLEND on high speed until very smooth. Serve over ice if desired. Makes 2 servings.

**Canadian Diabetes Association Food Choice Value**

<table>
<thead>
<tr>
<th>Per Serving</th>
<th>Calories</th>
<th>Protein</th>
<th>Fat</th>
<th>Carbohydrate</th>
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</thead>
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<td>18</td>
<td>0 g</td>
<td>0 g</td>
<td>4.1 g</td>
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</tbody>
</table>

**CRYSTAL LIGHT FOOLISH MARGARITA**

Prep time: 5 minutes.

- PLACE 1 envelope CRYSTAL LIGHT Lemon Lime Flavour Low Calorie Drink Mix, 1 1/2 cups water, 1/2 cup chilled orange juice and 2 Tbsp lime juice in blender container.
- BLEND on high speed until drink mix is dissolved.
- ADD 3 cups ice cubes; blend until smooth. Makes 4 (1 cup) servings.

**Canadian Diabetes Association Food Choice Value**

<table>
<thead>
<tr>
<th>Per Serving</th>
<th>Calories</th>
<th>Protein</th>
<th>Fat</th>
<th>Carbohydrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 serving</td>
<td>23</td>
<td>0.4 g</td>
<td>0 g</td>
<td>4.1 g</td>
</tr>
</tbody>
</table>

### Skin Deep Skincare with the DERMAL THERAPY™ Healthy Skin Guide

Look inside this kit for your DERMAL THERAPY™ Healthy Skin Guide. It’s been developed especially for diabetes clinics for use with your patients! Use it as a tent card on your desk or pin it to your wall for everyone to see. It even has a handy appointment card!

Recently, DERMAL THERAPY™ conducted a number of focus groups in Toronto to talk to diabetes sufferers about their skin health. We want to share these important findings with you!

All of the participants suffered from severe dry skin but only a few knew that their dry skin was probably linked to diabetes. In general, the level of awareness and involvement in patients managing their condition was surprisingly poor. These groups increased DERMAL THERAPY’s commitment to supporting clinics and the important work you do. Clearly, there is a huge need for increased professional education for diabetes sufferers regarding skin health.

Not surprisingly, almost all of the participants complained mostly about dry feet, especially their heels. Feet were described as dry, itchy and sore, but they were also a source of inconvenience and embarrassment. Respondents said that socks and nylons snagged or tore on their heels and they felt too self-conscious to wear sandals in the summer.

No wonder Heel Care is the fastest-selling formula of DERMAL THERAPY™.

**DERMAL THERAPY™** products include:

- Heel Care: 25% UREA and Alpha Hydroxy Acid.
- Finger Care: 20% UREA and Alpha Hydroxy Acid.
- Hand, Elbow and Knee Cream: 15% UREA, Alpha Hydroxy Acid and pure Silk Protein.
- Extra Strength Body Lotion: 10% UREA, Alpha Hydroxy Acid and pure Silk Protein.
- Face Care Moisturizing Lotion: 1% UREA, fine emollients, Alpha Hydroxy Acid and pure Silk Protein.
- Foot Massage Cream: 1% UREA, Alpha Hydroxy Acid, camphor, menthol and mint.

DERMAL THERAPY™ is a trademark of Dermal Therapy Research Inc.
When safety is your first priority, trust Novolin-Pen® 3.

INSULIN DOSING you can do ANYWHERE.

Ask your pharmacist, nurse educator, or physician for your Novolin-Pen® 3 or call Novo Nordisk at 1 800 910-PEN3. (7363)

AstraZeneca — ACE Inhibitors in Diabetes Treatment

Increasingly, clinical trials are demonstrating the benefits of ACE Inhibitors in patients with diabetes. Not only are ACE Inhibitors recommended as preferred therapy to control hypertension in diabetic patients, but there is now growing international consensus that ACE Inhibitors may reduce the progression of complications in diabetes such as nephropathy and retinopathy.

The enclosed booklet "International Consensus" from AstraZeneca (makers of Zestril®) summarizes current clinical guidelines recommending the consideration of ACE Inhibitors to control hypertension and the complications of diabetes.

Please remember that ACE Inhibitors must be prescribed by a doctor and each patient should be individually assessed to determine if ACE Inhibitors are the best therapy for their condition.

Colgate Total

As diabetes educators, alerting your clients to the special care that people with diabetes need to take is all part of a diabetes management program. It’s particularly important for them to take proper care of teeth and gums since studies have shown that people with diabetes tend to be three times more susceptible to gum disease.

Colgate Total® toothpaste is the only toothpaste clinically proven to go beyond cavity protection to fight plaque, tartar, and gingivitis, the first stage of gum disease. Therefore, brushing with Colgate Total®, flossing, eating a balanced diet, and making regular visits to your dentist are all important things to remember for proper oral health.

Aspartame and cancer

National Cancer Institute — Cancer Fact Sheet

“Recent analysis of National Cancer Institute statistics on cancer incidence in the United States does not support an association between the use of aspartame and an increased incidence of brain tumors. These data show that the overall incidence of brain and central nervous system cancers began to rise in 1973, 8 years before the approval of aspartame, and continued to rise until 1985. Increases in overall brain cancer incidence have occurred primarily in the 70 and older age group, a group that has not been exposed to the highest doses of aspartame since its 1981 introduction. Since 1985, the incidence of these cancers has stabilized, and, in the two years for which data are available (1991 to 1993), the incidence has, in fact, decreased slightly. Thus, at this time, there is no clear link, based on animal or human studies, between the use of aspartame and the development of brain tumors.”

Conclusion

Aspartame is composed of naturally occurring amino acids, similar to those found in meat and cheese and is just as the phenylalanine from protein foods. The amount of phenylalanine contributed by aspartame in foods is much less than that in other common foods eaten every day. For example one Equal packet contains 16.5 mg of phenylalanine versus one large egg that contains 343 mg or one cup of skim milk which contains 403 mg. Several studies of adult carriers of the PKU gene have demonstrated that they can consume large amounts of aspartame on a daily basis and still maintain levels of phenylalanine and tyrosine within normal limits.10,11
metabolized by the body in the same manner. It has been researched more than any other food additive in history and is considered safe. Aspartame has been widely used for almost 20 years and is an additive in more that 6,000 products. These products provide sweetness with minimal calories, effectively helping consumers to maintain a more healthy weight.

References:

The Power of Active Healing Diabetic Foot Ulcers

REGRANEX becaplermin 0.01% Growth Factor Therapy

Diabetic foot ulcers represent a significant social and economic burden for patients. They can result in severe debilitation, loss of income and a substantial reduction in quality of life. Furthermore, the failure of wound healing increases the risk of complications such as cellulitis, osteomyelitis and gangrene which often lead to amputation.

REGRANEX is an innovative, bio-engineered growth factor that can actively heal diabetic foot ulcers. It is the first treatment that offers bioactive wound healing power in a simple topical therapy. REGRANEX is indicated to promote the healing of full-thickness, lower extremity diabetic ulcers. It is safe and effective in increasing the incidence of complete wound healing and decreasing the time to complete wound healing.

REGRANEX funding assistance can be easily attained by giving your patients a prescription for REGRANEX and by asking your patients or their caregivers to call the REGRANEX Feet First Support Program at: 1-877- REGRANEX (1-877-734-7263).

REGRANEX should be used in conjunction with a good wound care regimen that includes:
- Debridement (to remove all calluses and necrotic tissue)
- Pressure relief
- Moist dressings changed

with a frequency to maintain a moist environment (usually once a day)
- Systemic treatment of wound-related infection

See the product monograph for further safety and prescribing information.

For all inquiries about REGRANEX, please call the REGRANEX Feet First Support Program at 1-877- REGRANEX (1-877-734-7263).

Foot notes!

FIBRE 1*

General Mills has included a full sized sample of their Fibre 1* cereal. Fibre 1* is a very high source of dietary fibre, is low in fat and cholesterol free. As you teach your clients to be label savvy you will probably want to point out that a half cup serving has 13 grams of fibre and although it has no sugar added, aspartame gives it a palatable sweetness. The half cup (30g) serving has a Canadian Diabetes Association Food Choice Value of 1 Starch Choice. The two separately sealed packs guarantee freshness and crunch.

CONTACT US

The Professional Pack Newsletter is published quarterly by Sampling Canada for inclusion in the Canadian Diabetes Care Guide, Professional Pack. Address all correspondence to:

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Email: alan.donaldson@sympatico.ca
Web site: www.diabetescareguide.com
Physical activity and healthy eating. A good balance between exercise and food intake is important, as this helps to maintain muscle strength and a healthy body weight. At least 30 minutes of moderate intensity physical activity, such as walking, is recommended every day. Keep fat to a minimum. Hint: look for healthy alternatives to popular meals – give these potato wedges a go, they’re better than chips, quick to make and the dishes aren’t as greasy to clean! Lean meat is best. If you’re a carnivore, watch how much saturated fat you’re eating. National Health and Medical Research Council, 2009, Australian Guidelines to Reduce Health Risk from Drinking Alcohol, Australian Government, Australia. More information here.