

# TO YOUR GOOD HEALTH

Welcome to our Spring 2010 issue of **To Your Good Health** where you'll find helpful tips for dealing with your diabetes, scientific breakthroughs in the treatment of the disease and offbeat items of interest. As always, we welcome your feedback. You can call us at 1-800-575-2345 or e-mail us at [service@amsdiabetic.com](mailto:service@amsdiabetic.com). We look forward to hearing from you.

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## New Discovery May Change Treatment of Diabetes

Scientists at the Joslin Diabetes Center have moved closer toward correcting the root cause of diabetes rather than just managing its symptoms. Researchers have identified a protein (G6PD) and its antioxidant product (NAPDH) that both prevent the death and promote the growth of beta cells that produce and release insulin in the pancreas.

In experiments with mice modified to produce less G6PD, researchers looked into the effects on the pancreas where beta cells are found in

structures called islets. They found the islets were tinier than normal, suggesting that the beta cells had been extensively damaged.

In follow up research, researchers went on to demonstrate that NAPDH can regulate the growth and death of beta cells. They found that increases in blood glucose levels cause a decrease in NAPDH that ends up killing beta cells. Conversely, boosting production of this key antioxidant guards against the damage in

mice beta cells.

“Preventing the death of beta cells or stimulating beta cells to grow is a Holy Grail in diabetes prevention”, said Robert Stanton, M.D., principal investigator. “Treatments aimed at increasing this essential antioxidant hold great promise for treating or preventing diabetes.”

*Source: Federation of American Societies for Experimental Biology (FASEB) Journal, December 2009.*

## Say Aye to Yearly Eye Exams

Vision loss is a particular threat to diabetics. Yet, 90 percent of diabetic eye disease can be prevented simply by regular eye examinations and treatment and by controlling blood sugar. Yet more than half of all people living with diabetes do not get the recommended annual dilated eye exam.

Diabetes causes more new cases of legal blindness among working-age Americans than any other disease. If diabetics are monitored regularly by their ophthalmologist, this vision loss is almost always avoidable.

*Source: American Academy of Ophthalmology*

### INSIDE THIS ISSUE:

The fat that makes you lean.	2
Obesity surgery without scars.	2
Smokers and Diabetes.	2
The 11 best foods you aren't eating.	3
Change lifestyle, reduce diabetes risk.	3
Diabetic Socks, Ulcers and Choosing diabetic socks.	4



## The Fat that Makes You Lean

Ever thought body fat could help you lose weight? Well, it turns out that one kind does. Brown fat actually burns calories to generate body heat, unlike the more familiar white fat that stores calories. Until recently, scientists had believed brown fat was found only in infants and some animals, which both use it to stay warm. But three groundbreaking studies

have not only identified brown fat in adult humans but found its calorie-burning mode can be switched on by subjecting people to a chilly environment.

Tiny pockets of heat-producing fat—found along the upper back, on sides of the neck, between the collarbone and the shoulder and along the spine—were more plentiful in young, thin people

with lower blood glucose levels but could be detected in most others, too.

Next, research will focus on how to activate brown fat without the need for meat-locker temperatures. If successful, that could lead someday to powerful anti-obesity medications.

*Source: New England Journal of Medicine*

## Obesity Surgery without Scars

Recent studies have suggested that Type 2 diabetics benefit from bariatric (weight loss) surgery. Now, doctors are testing a new kind of obesity surgery that does not require any cuts through the abdomen. Instead, surgeons thread a tube down the throat to snap staples into the stomach.

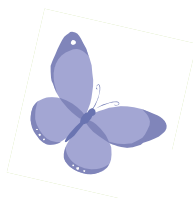
The experimental scar-free procedure creates a narrow passage that slows the food as it moves from the upper stomach into the lower stomach, helping patients feel full more quickly and eat less. The procedure includes no skin incisions, no surgical pain and patients bene-

fit from a short recovery time.

Studies are ongoing in Europe and America. Results so far indicate the experimental procedure is slightly better than the conventional stomach stapling procedure.

Surgery is generally considered a last-resort treatment for obesity which affects more than 15 million Americans.

*Source; CBS News June26, 2009*



## Smokers and Diabetes

A recent study suggests that quitting smoking may raise the risk of developing Type 2 diabetes in the short term, but as ex-smokers log more years without touching cigarettes, the risk gradually comes down.

Cigarette smoking is a well-established risk factor for Type 2 diabetes, but when smokers quit, they typically put on extra pounds. Researchers suspect the weight gain is the main reason why the diabetes risk goes up in the short term.

However, they stress that these findings should not be used as an excuse to keep smoking that is also a risk factor for many other diseases.

Their message: If you smoke, give it up, but watch your weight.

*Source: Annal Internal Medicine, January 5, 2010*

## The 11 Best Foods You Aren't Eating

The list comes from nutritionist and author Dr. Jonny Bowden. Note: Consult with your health-care giver. Not all foods may be appropriate for you.

**Beets:** Think of them as red spinach. Eat fresh, raw and grated.

**Cabbage:** Loaded with nutrients. Eat as Asian-style slaw or as crunchy topping on burgers.

**Swiss Chard:** Leafy green vegetable packed with carotenoids. Chop and sauté in olive oil.

**Cinnamon:** May help control blood sugar and cholesterol. Sprinkle on coffee or oatmeal.

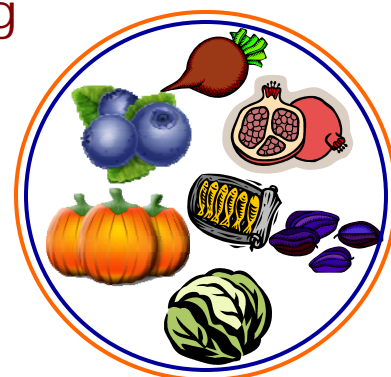
**Pomegranate juice:** Loaded with antioxidants. Appears to lower blood pressure.

**Prunes:** Packed with antioxidants: Wrap in prosciutto and bake.

**Pumpkin Seeds:** Packed with magnesium; high levels of minerals. Roast as snack or sprinkle on salad.

**Sardines:** High in omega-3, loaded with calcium, iron, manganese, phosphorous, potassium, zinc, copper and manganese and full complement of B vitamins. Eat plain, mixed with salad, on toast.

**Turmeric:** Superstar of spices. May have anti-inflammatory and



anti-cancer properties. Mix with scrambled eggs or in any vegetable dish.

**Frozen Blueberries:** Available year-round and don't spoil. Blend with yogurt or chocolate soy milk and sprinkle with crushed almonds.

**Canned Pumpkin:** Low-calorie vegetable, high in fiber and immune-stimulating Vitamin A. Mix with a little butter, cinnamon and nutmeg.

## Change Lifestyle, Reduce Diabetes Risk

A new study confirms prior evidence that intensive lifestyle changes aimed at modest weight loss and increased physical activity reduce the rate of developing Type 2 diabetes after 10 years.

Results from the Diabetes Prevention Program Outcomes Study (DPPOS) indicate that

lifestyle intervention reduced the onset of Type 2 diabetes by 34 percent for those in a randomized study, compared with those in the study who did not participate in the lifestyle intervention.

According to the study, participants in the lifestyle intervention group also had more favorable cardiovascular risk factors, such

as lower blood pressure and triglyceride levels, even though they were taking fewer drugs to control their risk for heart disease.

Source: NIH-funded DPP and DPPOS Supported by the American Diabetes Association.

## **Diabetic Socks**

### **Why Diabetic Socks**

Neuropathy, foot ulcers and other foot-related problems pose particular risks for diabetics. Diabetic socks help protect against these risks. Diabetic socks control moisture that can reduce the risk of infection. They are made without seams or wrinkle-prone material to reduce pressure. Another benefit is a non-binding top. Loose tops constrict less and improve blood flow.

### **Ulcers**

A particular problem for many diabetics is ulcers. An ulcer is a sore on the skin or a mucous membrane, accompanied by the disintegration of tissue and often the formation of pus. Ulcers can result in complete loss of both the outer and inner layers of skin and even the subcutaneous fat below. A ulcer on the skin is often visible as an inflamed tissue with an area of reddened skin. Skin ulcers are often visible as the result of exposure to heat or cold, irritation or a problem with blood circulation. Through lack of mobility, there may be prolonged pressure on the tissues. This stress in the blood circulation is transformed to a skin ulcer, commonly known as a bedsores.

### **Choosing diabetic socks**

Choice of a diabetic sock should always be discussed with your podiatrist or other healthcare giver to determine the proper sock for your condition. The proper sock could be cotton blend with stretch top, non-cotton with antimicrobial properties or just a plain non-binding sock to allow circulation to flow freely. If excessive edema is present, extra-wide socks may be appropriate.

Today, diabetic socks look much like regular socks and come in different styles and colors. However, if one has open wounds or sores, usually white socks are recommended. Lighter-colored socks may alert wearers with compromised sensation to a draining wound.

It is important to wear whatever socks are comfortable and fit well without constricting cuffs, lumps, or uncomfortable seams. Fitted socks are preferable to tube socks. You can judge for yourself which type of fabric feels the most comfortable.

# Diabetic Socks

These socks give your legs the blood circulation they crave and the quality you deserve. With a stretchy 11" cross stretch to allow increased circulation and a reciprocated heel and toe that will not wear out like other diabetic socks. **Physician's Choice** footwear is doctor approved.

**Order Now 1.800.575.2345**



Note: Information contained in this newsletter is not intended as a substitute for informed medical advice. You should not take any action before consulting with your physician.