

# NATURE'S BIN

Naturally

## Natural Insights for Well Being®

January 2014

### New, Safe Diabetes Therapy

Resveratrol shows promise in two new studies

#### What is resveratrol?

Resveratrol is a naturally occurring acidic compound that plants produce to combat bacteria and other pathogens, and is found in the skin of red grapes, other fruits, and in Japanese knotweed.

#### Reducing diabetic complications

Those with type 2 diabetes often have complications including blood vessel damage, chronic high glucose levels, and imbalances in circulating lipids. Doctors are looking for new therapies without the side effects of current treatments.

In one of the first human studies on resveratrol, 57 participants with type 2 diabetes continued taking standard oral glucose control drugs with or without 250 mg of resveratrol per day. After six months, while there were no changes for placebo, those taking resveratrol saw a significant decrease in body weight, systolic blood pressure, total cholesterol, triglycerides, improved kidney function, and beneficial increases in circulating antioxidant enzymes. Also, resveratrol tended to decrease long-term fasting glucose levels.

#### Improving glycemic control

In this resveratrol study, 66 people with type 2 diabetes took a placebo or 1,000 mg of resveratrol per day along



with continuing to take standard anti-diabetic treatment.

After 45 days, compared to the start of the study, fasting blood sugar levels and LDL, the “bad” cholesterol, increased slightly in the placebo group, while those who took resveratrol saw significantly lower systolic blood pressure, fasting and long-term average glucose levels, and circulating insulin and insulin resistance. Also, HDL, the “good” cholesterol, significantly increased.

Discussing their findings, doctors said some of the decrease in long-term average glucose levels and increases in HDL with resveratrol are very significant and comparable to the benefits from front-line anti-diabetic drugs. Also, 1,000 mg of resveratrol per day for 45 days had no adverse effects, and resveratrol not only complemented standard medication, but increased protection in type 2 diabetes beyond standard therapy, doctors concluded.

REFERENCE: RESEARCH JOURNAL OF PHARMACY; NOVEMBER 8, 2013, VOL. 8, NO. 4, ISSN 2230-8407

JANUARY'S

### Healthy Insight Mediterranean Diet Improves Diabetes

People who ate more healthy oils and fewer carbohydrates were much less likely to develop type 2 diabetes. Doctors in this study measured the diets of 22,295 people over 11 years. Those who more closely followed a Mediterranean diet were 12 percent less likely to develop type 2 diabetes than those who did not. Also, when people combined the diet with fewer carbohydrates, they were 20 percent less likely to develop type 2 diabetes than those who had high-carbohydrate diets. Overall, participants were best able to protect against diabetes by lowering carbohydrates, decreasing saturated fats, and increasing healthy fats such as in raw nuts and extra virgin olive oil.

REFERENCE: DIABETOLOGICA; 2013, VOL. 56, NO. 11, 2405-13

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# Healthy Men

## Nutrients improve health factors in obese and diabetic men

### Resveratrol may shrink fat cells

Recent studies suggest resveratrol can imitate the health effects of reducing calories. In this study, 11 obese but otherwise healthy men took a placebo or 150 mg of resveratrol per day for 30 days, then switched resveratrol and placebo for another 30 days.

Doctors were interested in what would happen to adipose tissue, the energy-storing fatty connective tissue just under the skin. While there were no changes during the placebo phases, after 30 days taking resveratrol, the number of large and very large fat cells decreased while the number of small fat cells increased; and doctors saw less activity along the genetic pathways that help form fat cells, and more activity along the gene pathways that help break down fat cells, both beneficial changes.

### Omega-3s linked to less type 2 diabetes

Because the relationship between omega-3s and type 2 diabetes is unclear, doctors followed 2,212 men who were free from diabetes at the start of this 20-year study. About one in five of the men eventually developed type 2 diabetes.

Several times over the course of the study, doctors measured the diets, fasting glucose levels, glucose tolerance, and circulating levels of eicosapentaenoic, docosahexaenoic, docosapentaenoic, and alpha-linolenic acids (EPA, DHA, DPA, AHA). Compared to men with the lowest levels, men with the highest circulating levels of omega-3 fatty acids were 33 percent less likely to have developed type 2 diabetes over the 20-year study.

Doctors concluded that higher

concentrations of omega-3 fatty acids reduce the chances of developing type 2 diabetes over the long term.

REFERENCE: INTERNATIONAL JOURNAL OF OBESITY; SEPTEMBER, 2013, PUBLISHED ONLINE



# Healthy Circulation

## Nutrients protect against vascular disease and stroke

### Lutein and lycopene reduce artery thickness

The walls of the carotid artery, the main blood supply to the head and



neck, thicken and harden with age, and doctors check the thickening for early signs of vascular disease. In this study, 144 adults with early-stage hardening of the arteries took a placebo, 20 mg of lutein, or the lutein plus 20 mg of lycopene per day.

After 12 months, while there were no changes in the placebo group compared to the start of the study, carotid artery thickness decreased by 0.035 mm in the lutein group, and by 0.073 mm in the lutein and lycopene group. Also, beneficial blood concentrations of lutein and lycopene increased significantly.

Doctors said that to protect against hardening of the arteries, lutein appears to be effective, and lutein together with lycopene may be more effective.

### Fiber reduces chances of stroke

Doctors reviewed six separate stroke studies that followed 314,864 men and women for 12 to 18 years. Overall in the six studies combined, for every 10-gram increase in the average long-term amount of total fiber per day, participants reduced their chances of having a stroke by 12 percent.

Generally, those who consumed less than 10 grams of total fiber per day were more likely to have a stroke than those who got 11.4 grams to 29 grams of total fiber per day. Men were most likely to begin seeing the benefit at 11.4 grams of fiber per day, while women had to consume 29 grams of total fiber per day to achieve the greatest benefit.

REFERENCE: BRITISH JOURNAL OF NUTRITION; SEPTEMBER, 2013, PUBLISHED ONLINE

# Healthy Athletes

## Nutrients help reduce illness after strenuous exercise

### Probiotics reduced illness in elite athletes

Doctors said that the benefits of probiotics include boosting the immune function, and wanted to test the effects of probiotics in elite athletes. In the



study, 20 active professional rugby players took a daily combination of probiotics or a placebo for four weeks, then switched placebo and probiotics for another four weeks. The probiotics combination included several lactobacilli and bifidobacteria varieties.

During the probiotics phases, nearly half of those taking probiotics reported having no respiratory or gut illness symptoms compared to 20 percent of those during the placebo phases. Also during the probiotics phases, those taking probiotics reported 42 percent fewer days of illness compared to the placebo phases.

### Yeast beta glucan increased immunity

After strenuous exercise, the natural immune capacity of mucous membranes that line the air passageways

and digestive tract can deteriorate for up to 24 hours, increasing chances for infection.

In the first of two studies, 182 marathon runners took 250 mg of yeast beta glucan per day, or a placebo, for 28 days immediately after a marathon. Compared to placebo, those who took yeast beta glucan had 37 percent fewer cold or flu symptoms overall.

In the second study, 60 men and women took a placebo or 250 mg of yeast beta glucan per day 10 days before attempting a strenuous 50-minute cycling exercise. Two hours after completing the cycling test, compared to placebo, the yeast beta glucan group had 32 percent higher levels of a salivary antibody, signaling the mucous membranes were stronger, and could resist infection better.

**REFERENCE:** JOURNAL OF DIETARY SUPPLEMENTS; 2013, VOL. 10, NO. 3, 171-83

# Healthy Kids

## Nutrients boost bone in children and adolescent girls

### Magnesium key to bone health in kids

Magnesium is a main factor in bone health, and there is little research on magnesium and how it relates to bone mineral density in children.

Doctors in this study measured the diets, bone density, and calcium and magnesium intake and excretion in 63 children, aged 4 to 8, who were not taking any vitamins or minerals. In order to get accurate measurements, the children stayed overnight twice in the hospital, and got oral and intravenous calcium and magnesium to equal their typical diets.

While calcium did not appear to be linked to bone mineral density, the amount of magnesium the children

consumed and absorbed were key predictors of bone mineral density, researchers said.

### Vitamin D strengthens bones in girls

Doctors in this study measured bone health in 167 adolescent girls and 171 boys who took a weekly placebo, 14,000 IU of vitamin D, or 1,400 IU of vitamin D per week.

After one year, while there was no significant effect in boys, girls who took the placebo had a 4.2 percent increase in bone mass of the hip, a 6.8 percent increase in the high-dose group, and a 7.9 percent increase in bone mass for the low-dose vitamin D group.

One critical measure of the balance

between bone thickness and width, called the buckling ratio, at the narrow part of the neck of the femur bone, strengthened by 1.9 percent for placebo, by 2.4 percent in the high-dose group, and by 6.1 percent in the low-dose vitamin D group.

**REFERENCE:** JOURNAL OF BONE AND MINERAL RESEARCH; JUNE, 2013, PUBLISHED ONLINE





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## Mediterranean Polenta & Tomato Tapenade

**In a few minutes, you can have a scrumptious, satisfying treat, and please see page 1 for a new study on how the Mediterranean diet reduced chances of diabetes.**

**Tapenade ingredients:**

¾ c sun-dried tomatoes  
1-2 tbsp olive oil  
¼ c fresh basil, parsley, and/or cilantro  
2 tsp capers and/or pitted olives, rinsed  
1 clove garlic, chopped  
1-2 tbsp balsamic vinegar  
Freshly ground black pepper to taste

**Polenta ingredients:**

1 - 16-18 oz tube prepared polenta  
Olive oil or cooking spray for pan or grill

**Directions:** To start, if your sun-dried tomatoes are not soft, soak in boiling hot water until soft, drain and mix with olive oil. In a food processor, add the sun-dried tomatoes, basil, parsley, and/or cilantro, capers and/or olives, garlic, balsamic vinegar, and pepper, and pulse until coarsely chopped. Cut polenta into 12 slices. Broil, fry, or grill until crispy brown outside and heated through. Top polenta with tapenade and serve immediately.

## Thanks for shopping with us!

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