



MEDIFAST NEWS

Updates on clinical obesity management with Medifast



summer 2008

Welcome to Medifast News!

Here's what's new from Medifast, your resource for clinical management of obesity.

This month:

Program update - New products with antioxidants and resveratrol

Food science - Acesulfame Potassium (Ace-K)

Nutrition - Potassium

Compliance - Overcoming Temptations

Medifast Program Updates and News

New products with antioxidants and resveratrol

Medifast's new Shakes and Flavor Infusers™ contain antioxidants, substances that can counteract the damaging effects of free radicals and oxidative stress in animal tissue. Free radicals are highly unstable, chemically active atoms. They act as scavengers in the body, donating or stealing electrons from other cells, proteins, and genetic materials such as DNA to balance themselves, thus causing damage to cells. Antioxidants help break the cycle of free radical damage by neutralizing these active atoms.

Free radicals come from two sources: Endogenous sources such as normal respiratory function, catabolism, anabolism, and inflammation; and exogenous sources, including pollution, sunlight, strenuous exercise, smoking, alcohol, and emanating radiation.

Antioxidants include vitamins E, C, and beta carotene; minerals such as selenium; and phytochemicals. Phytochemicals include carotenoids, flavonoids, isoflavones, and phenols.

One of the most interesting phenols in the news today is resveratrol, a small antioxidant molecule found in red wine, grape skins, peanuts, blueberries, cranberries, and other foods.

The health benefits of resveratrol look promising in clinical studies. Research conducted in 2003 by David Sinclair, Associate Professor of Pathology at Harvard Medical School, has shown resveratrol increases lifespan and negates the negative impact of a high caloric intake in a population of various organisms. The

study subjects included yeast, fungus, worms, flies, fish, and mice. Resveratrol was shown to extend the lifespan of all organisms tested, with worms and flies living nearly 30% longer, and fish nearly 60% longer.

Resveratrol is thought to improve health and longevity by activating a conserved genetic pathway. Sirtuins, a family of proteins that are NAD⁺ - dependent histone/protein deacetylases, are important in cellular processes such as gene silencing, regulation of p53, fatty acid metabolism, cell cycle regulation, and lifespan extension.

Seven sirtuin homologs (SIRT 1-7) exist in the human body, and resveratrol has been found to be most potent in activating SIRT-1, with some research revealing an activation rate of up to eight times normal. This translates into improved health biomarkers such as glucose, insulin, and inflammation, a prolonged lifespan, and protection of vital organs such as the heart and liver.

continued on page 2

Current human clinical trials will yield more conclusive data on resveratrol's health benefits, and may reveal the substance to be highly significant in clinical nutrition.

High ORAC value

Each Medifast antioxidant product packs a powerful oxygen radical absorbance capacity (ORAC) value of 1,000. The ORAC scale rates the antioxidant capacity of a food by measuring both time and degree of free-radical inhibition. All antioxidant capacity measurements are estimated by ferric-reducing power, and are expressed as micromole

Trolox equivalent (TE) per 100 grams (μ TE/100 g). Experts suggest consuming between 3,000 and 5,000 ORAC units a day for the best possible protection and health.

Patient information for the new products

The new Shakes are whey-protein based, and come in Blueberry, Cherry Pomegranate, and Dark Chocolate. The Flavor Infusers™, which are added to water and not considered meals, come in Citrus Margarita, Raspberry Açai, and White Grape Peach. Patients on the Medifast 5 & 1 Plan can consume up to five total antioxidant Flavor Infusers™ per day and still maintain ketosis.

These statements have not been evaluated by the Food & Drug Administration. These statements are not intended to diagnose, treat, cure, or prevent any disease.

Sources:

Athar, *et. al.*: "Resveratrol: A review of preclinical studies for human cancer prevention." *Toxicology and Applied Pharmacology*, Vol. 224, Issue 3, Nov. 2007.

Borra, Smith, Denu: "Mechanism of Human SIRT1 Activation by Resveratrol." *The Journal of Biological Chemistry*, Vol. 280, No. 17, pp. 17187-17195, 2005.

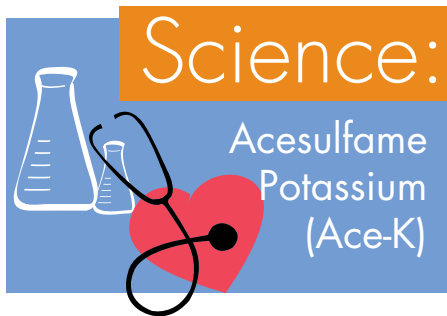
Mayo Clinic Staff: "Red wine and resveratrol: Good for your heart?" *Mayo Foundation for Medical Education and Research*, March 9, 2007.

National Cancer Institute: *Antioxidants and Cancer Prevention*, 2003.

Sinclair, *et. al.*: "Resveratrol improves health and survival of mice on a high calorie diet." *Nature*, Vol. 444, pp 337-342, November 2006.

Stip: "Can red wine help you live forever?" *CNNMoney.com*, Jan. 19, 2007.

Food



Medifast uses a combination of sweeteners in conjunction with acesulfame potassium (Ace-K). The combination enhances taste and quality without contributing significantly to carbohydrates or calories. Most Medifast products contain acesulfame potassium, except the bars, scrambled eggs, Momentum Flavor Infusers™, and soups (excluding Cream of Tomato).

Acesulfame potassium is a high-intensity, non-nutritive sweetener that is approximately 200 times sweeter than sugar. A combination of acetoacetic acid (an organic compound) and potassium, it is not metabolized or stored in the body, and is excreted unchanged. Acesulfame potassium does not promote tooth decay, and is suitable for people with diabetes. Several long-term animal studies have revealed no evidence of carcinogenicity. It is not a significant source of dietary potassium.

Artificial sweeteners reduce unnecessary calories in foods and beverages, and help many patients achieve and

maintain a healthy weight. Acesulfame potassium is approved in more than 100 countries, and is used in over 5,000 food and beverage products worldwide. On the basis of numerous scientific studies, national and international regulatory agencies have classified acesulfame potassium as safe for human consumption. The USFDA has deemed it safe for all segments of the population, including children and pregnant women. (Pregnant and nursing women, however, should follow the advice of their physician regarding their nutrition, including artificial sweeteners.)

Nutrition

Corner:

Potassium



For comments or questions regarding nutrition, please contact:

NutritionSupport@ChooseMedifast.com

Potassium is a mineral that is found abundantly in foods and is especially critical for the normal functioning of nerve and muscle cells. Research shows that a high potassium intake can help prevent hypertension and osteoporosis.

Potassium-rich food groups like fruit and dairy are best avoided while on

the Medifast 5 & 1 Plan for weight loss; however, Medifast Meals provide 280 mg to 620 mg of potassium per serving.

Patients on the 5 & 1 Plan can increase their potassium intake by including tomatoes, fresh spinach, and greens in their daily Lean & Green

Meal. Cod, halibut, and flounder are excellent sources of potassium, and liquid egg substitutes also provide a good amount per serving. Capers are loaded with potassium and are a great way to enhance the flavor of meals, as are certain salt substitutes. Physicians can also prescribe a potassium supplement when appropriate.

The following sample meal plan meets the adequate intake for potassium:

Medifast Program Foods	K+ (mg)
Tropical Punch Fruit Drink	500
Chocolate Pudding	480
Chicken Noodle Soup	620
Ready-to-Drink Chocolate Shake	480
Iced Tea (Peach or Raspberry)	500
Lean & Green Meal	
7 oz halibut	1143
spinach & tomato salad	
2 c spinach,	335
1/2 c tomato	213
2 tbsp capers (condiment)	510
	4781 mg



MedifastMD.com: Saving you time and money!

The new Web site for Medifast Medical Providers is streamlined for easier navigation and faster online purchasing. Plus, you get an **additional 4% discount** for ordering online. Check it out at www.MedifastMD.com

In the next issue of

MEDIFAST NEWS

Program update: New! Nursing Mother's Meal Plan

Food science: Fructose

Nutrition: Battling Constipation

Compliance: Surviving Celebrations

Effective July 1, 2008, Medifast is increasing product prices due to rising fuel costs and shortages of raw material supplies. For more information, call 1.800.223.1809

Compliance:

Overcoming Temptations

“The road to success is dotted with many tempting parking spots.”

--Anonymous

The appealing sights, smells, and sounds of food – and opportunities to indulge in them – are ever-present in our daily lives. Such temptations can challenge even the most resilient individuals’ weight-management efforts.

Promote dietary adherence and increase weight-management success by sharing the following tips and tricks for overcoming food temptations with your patients.

• **Head off temptation:**

- Patients can keep hunger at bay and blood glucose levels more stable by eating every two to three hours.
- Confusing thirst for hunger is avoided by staying well-hydrated. Patients should strive to drink at least 64 ounces of water and other zero-calorie beverages each day.
- Plan ahead: Patients can keep Medifast Meals in easily-accessible places at home and work, or even

in the car or purse when running errands or attending special events.

• **Get to know your eating cues and food triggers:**

Being aware of personal triggers and vulnerabilities is the key for developing strategies to overcome them.

- **Time:** Just because the clock says noon doesn’t mean it is time for lunch.
- **Places:** Patients might crave chocolate chip cookies when at the house of a parent or friend, or want bread when walking past a bakery.
- **Activities:** Many patients are used to munching on something when watching television or eating the leftovers when clearing the dishes.
- **Thoughts:** Examples of trigger thoughts: “I’ve worked really hard and I deserve this...” or “I don’t want to seem rude by not having any.”
- **Emotions:** People seek out food in response to feelings of stress, anger, anxiety, boredom, depression, and even happiness.

• **Work to counteract eating cues or develop healthier substitutes:** After identifying their personal

patterns, patients can work to break free from these habits, develop alternative ways to distract themselves, or substitute a more constructive response.

- Instead of eating at night when watching TV, patients can try knitting, chewing on a piece of sugar-free gum, or taking a walk to avoid the situation altogether.
- If habit takes someone past the coffee shop that typically provides their daily latte and muffin fix, switching routes can help, as can having plain coffee. Patients can save the money that would have been spent on calorie-heavy snacks in a special fund to go toward a non-food related reward. Smaller, more frequent rewards tend to work better than larger ones.

• **Look elsewhere for comfort:**

Patients can use exercise, meditation, music, or a special non-food related activity as a means to relieve stress or other emotions.

• **Out of sight, out of mind:**

Patients should avoid keeping tempting foods around the house or visible at work. When buying treats for others, they can choose something others enjoy, but that the patient is able to decline.



11445 Cronhill Drive
Owings Mills, MD 21117

PRE-SORTED
STD U.S.
POSTAGE
PAID
RIDGELY, MD
PERMIT #40