



ON TRACK WITH BARIX

Support to Keep You On Track With a Healthful Lifestyle

Vitamin A

Vitamins are nutrients required in small amounts, and are vital for life. Vitamin A is a fat-soluble vitamin that plays an important role in vision, bone growth, cell division, reproduction, cell differentiation, the making of white blood cells to fight off infections, and healthy linings of the eyes, respiratory, urinary and intestinal tracts.

Our bodies get Vitamin A from both plant and animal sources. Preformed Vitamin A is found in animal sources such as eggs, milk, and liver. Provitamin A carotenoids, like beta-carotene, are found in colorful fruits and vegetables (like carrots, cantaloupe, sweet potatoes and spinach) and are converted to the active form of Vitamin A, retinol, in the body.

Weight loss surgery, especially gastric bypass, may increase the risk of a vitamin A deficiency if the body isn't supplemented with vitamins and minerals as recommended. Vitamin A does not just function by itself. In the body's complex design and balance, a deficiency in one nutrient can lead to a deficiency in another. For example, a deficiency in iron can also contribute to a vitamin A deficiency because iron is necessary to convert beta carotene to the active form of vitamin A. A deficiency in zinc, copper or protein

Common Multi-Vitamin Supplements

Supplement	Vitamin A (Preformed)	Carotene (Provitamin A)
Flintstones Complete chewable (1 tab)	2000 IU	1000 IU
Flintstones Complete chewable (2 tabs)	4000 IU	2000 IU
Centrum Complete chewable (1 tab)	2485 IU	1015 IU
Centrum Complete chewable (2 tabs)	4970 IU	2030 IU
Celebrate chewable complete (2 tabs)	5000 IU	5,000 IU

hinders the body's ability to move vitamin A stores from the liver to the body tissues, possibly leading to a vitamin A deficiency. The bottom line is that a healthy vitamin A status depends upon overall good nutritional health.

Night blindness, dry skin, dry hair, broken fingernails, and decreased resistance to infections are among the first signs of vitamin A deficiency. Lab tests can determine if these symptoms are due to a vitamin A deficiency.



Treatment for vitamin A deficiency often includes a daily oral vitamin A supplement of 10,000 IU and an increase in foods that are a good source of vitamin A or beta-carotene. It should also include a complete lab panel to determine if other nutritional deficiencies are contributing to the problem. Follow-up lab tests should be conducted about 3 months later to check the progress of treatment and adjust supplementation levels. High levels of vitamin A supplementation should only be done for a limited time and closely monitored to prevent toxicity.

Preventing vitamin A deficiency requires regularly taking a high-quality complete multi-vitamin and mineral supplement, and a healthy well-rounded diet will prevent deficiencies of other nutrients. The Dietary Reference Intake of vitamin A for females is 700 RAE (or 2300 IU) and

for men 900 RAE (or 3000 IU). Supplements designed specifically for post-bariatric surgery often have higher amounts of vitamin A due to the higher potential for deficiencies.

Too much of a good thing is a bad thing in the case of vitamin A. High amounts of supplementation from preformed vitamin A sources can cause vitamin A to build up in the body and do more harm than good. A Tolerable Upper Limit Intake (the maximum daily intake unlikely to result in adverse health effects) has been established to help prevent this from occurring. The upper limit is 3000 IU of preformed vitamin A. Vitamin A in the form of carotene (provitamin A) from plant sources or as a supplement is generally considered safe because it is not converted to vitamin A when body stores are full. High intake of carotene can turn the skin yellow-orange, but this is not considered harmful. Those having undergone gastric bypass (or other bariatric surgeries) may need amounts of vitamin A above the Tolerable Upper Limit Intake to prevent deficiency. Work with your surgeon and dietitian to find a safe level of supplementation to meet your individual needs.

Excess intake of preformed vitamin A can lead to bone fractures, birth defects, liver abnormalities, nausea, irritability, anorexia, vomiting, blurry vision, headaches, hair loss, muscle and abdominal pain, drowsiness, lack of muscle coordination, and altered mental status. Toxicity can occur when large amounts of liver are consumed, but most cases are due to excessive vitamin supplementation, especially over long periods of time.

To summarize; vitamin A is an essential nutrient for good health. Maintaining healthy levels after

*The Vitamin A content of foods is measured in **Retinal Activity Equivalent** to account for the different types of Vitamin A (preformed vitamin A from animal sources and provitamin A from plant-based foods) and the availability of the retinal.*

Food	Serving Size	Retinal Activity Equivalents
Liver	3 oz	6582
Chicken giblets	1 cup	2542
Carrot juice	1 cup	2256
Pumpkin, canned	1 cup	1906
Carrots, cooked	1 cup	1342
Sweet potato, cooked	1 each	1228
Spinach, cooked	1 cup	1146
Collard greens, boiled	1 cup	978
Vegetables, mixed	1 cup	949
Pumpkin pie	1 piece	660
Beet greens, boiled	1 cup	552
Squash, winter	1 cup	534
Cantaloupe	1 cup	270
Cheese, ricotta	1 cup	263
Peppers, sweet, red	1 cup	234
Tomato paste	1 cup	199
Egg	1 large	170
Peas, frozen, cooked	1 cup	168
Papaya	1 each	167
Cereals, dry, fortified, varies by product	1 serving	150
Milk, skim	1 cup	149
Spinach, raw	1 cup	141
Cheese, muenster	1 oz	84
Cheese, cheddar	1 oz	75

weight loss surgery (especially gastric bypass) requires lab monitoring and possibly additional supplementation above the amount of vitamin A found in multi-vitamin and mineral supplements. When using additional supplements, follow-up with labs and readjust supplementation as needed to prevent toxicity. Vitamin A as found naturally in dark green leafy and orange vegetables and fruits, as well as beta-carotene supplements, can help to safely maintain healthy vitamin A levels.



SUBSCRIBE

to

On Track With Barix

[www.barixclinicsstore.com/
newsletter_sign_up.html](http://www.barixclinicsstore.com/newsletter_sign_up.html)

RECONSTRUCTIVE SURGERY

To receive a **FREE RECONSTRUCTIVE SURGERY** guide, call 800-282-0066 or send us an email at rc@barixclinics.com with your name and contact information. Our reconstructive surgery program is currently performed at our centers in Michigan, Ohio, and Pennsylvania. **Call us today for more information!**

SHARE YOUR SUCCESS

Tell us about how your life has changed as a result of your weight loss surgery. Your story may be printed in this publication or on one of our websites and can serve as an inspiration to others.

Submit your story online (http://www.barixclinicsstore.com/share_your_story.html).

We'd love to hear from you.

QUESTIONS ABOUT FINANCING YOUR SURGERY?

Call a Barix Patient Service Representative at 800-282-0066

It Worked for Me

The Barix Forums are about people supporting each other through tough times and WOW moments. No one can quite understand what you are going through like someone who has walked in your shoes. Here is just one example of a posting (edited) that supports the person posting and also inspires others. If you have not checked out the forums, what are you waiting for? Just create an account and find the support you need (forum.barixclinics.com).

POSTING:

I am happy with the consistent way in which I have lost weight over the last 11 weeks and am learning new behaviors that will carry me well into maintenance. HOWEVER... there is something wrong with my brain.

Now that I have seen other weight loss surgery people who proudly display their surgery dates and the amount of weight they have lost...I am constantly comparing myself to them. Why in the world does my brain understand that everyone is different, feel good about the weight I have lost, but still get upset when I see others doing so much better?

RESPONSE 1

It is a terribly normal thing that we all do. I was guilty of it too but it really is like comparing apples and oranges.

RESPONSE 2:

I look at others and often feel as if I've lost slower than some, but all that matters is the end result.

It's not a race. Just do everything you can do be as healthy as you can and make sure to get the protein and exercise in, they really help.

RESPONSE 3

Remember your journey is your journey. Don't look at those weight/date postings — think more about your own milestones. Start by listing all the things you can do that you couldn't before. A simple thing like bending over and tying your own shoes without turning purple is a huge accomplishment! Bask in the joy and happiness and celebrate all the things that make you uniquely you! I'm sure someone out there is, sadly, comparing themselves to you and your wonderful success.



In the News

The Centers for Medicare and Medicaid Services (CMS) are considering a proposal to cover laparoscopic sleeve gastrectomy for Medicare patients. Medicare has covered bariatric surgery since 2006 (including the gastric bypass and the adjustable gastric band) and have asked for public comments to help determine "whether there is adequate evidence, including clinical trials, for evaluating health outcomes of laparoscopic sleeve gastrectomy

(LSG) for the indications listed in the current Bariatric Surgery for the Treatment of Morbid Obesity National Coverage Determination." Public comments were welcome through October 30, 2011.

The agency plans to make a final decision by June 30, 2012 and potentially cover gastric sleeve surgery for those covered by Medicare who qualify.

Recipes

Pumpkin Roll

- | | |
|-----------------------------------|---|
| 1 cup almond meal | 4 eggs |
| 1 tsp baking powder | ¼ cup canola oil |
| 2 tsp cinnamon | ½ cup water |
| 1 tsp ginger | 1-8 oz pkg light cream cheese, softened |
| ½ tsp nutmeg | 1 tsp vanilla |
| ½ tsp allspice | ¼ cup sugar-free maple syrup |
| ¼ tsp salt | |
| 1-½ tsp unflavored gelatin powder | |
| ¾ cup Splenda | |
| 1 cup canned pumpkin | |

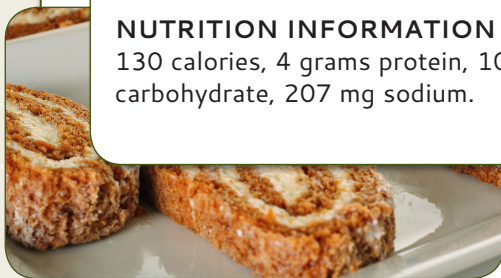
Preheat oven to 375° F. Prepare pan – spray a 10X15 inch jelly roll pan with non-stick spray, line with parchment paper, spray the top of the parchment paper.

Mix dry ingredients well. Add pumpkin, eggs, oil and water and beat for 2-3 minutes. Pour into prepared pan. Reduce oven heat to 350° F. Bake for about 15-18 minutes, until toothpick comes out clean. Do not overbake.

Cool in pan for about 5 minutes. Then, cover the pan with a clean dish towel and flip over. Carefully peel off the parchment paper. Then roll the cake up in the dish towel, starting with a long side (so the cake will be long and thin). Let cool for 10-15 minutes.

Mix the cream cheese, vanilla, and syrup together. Unroll cake. Don't force it to flatten completely. Spread filling on cake and roll the cake back up. Cool completely in refrigerator before serving. Slice into 15 slices and serve.

NUTRITION INFORMATION PER SERVING:
130 calories, 4 grams protein, 10 grams fat, 6 grams carbohydrate, 207 mg sodium.



Sweet Potato Parmesan Fries

- 2 large sweet potatoes
- 2 large egg whites
- 1 cup fresh grated parmesan cheese
- freshly ground pepper (to taste)
- fresh ground salt or coarse salt (to taste)

Preheat oven to 425 degrees F. Line a baking sheet with parchment paper or aluminum foil. If using foil, spray with pan spray.

Beat egg whites until foamy. Set aside. Cut sweet potatoes into steak fry sized pieces. Dip sweet potato pieces into egg whites, gently shaking to remove excess whites. Lightly dip into parmesan cheese on one side only. Set fries on baking sheet with parmesan cheese facing up. Season with salt and pepper if desired. Bake for 25-30 minutes until crispy on the outside but tender when pierced with a fork. Makes 4 servings.

NUTRITION INFORMATION PER SERVING:
172 calories, 13 grams protein, 7 grams fat, 14 grams carbohydrate, 446 mg sodium.

Courage doesn't always roar.
Sometimes courage is the **quiet voice** at the end of the day saying,
"I will try again tomorrow."

try again
Mary Anne Radmacher

REWARD YOURSELF



This month, you could earn a SPECIAL GIFT for your "It Worked For Me" tips or recipes! Just submit as many recipes and "It Worked For Me" tips as you like. The most original and creative will be awarded a special gift from our online store. Include your name and contact info with your entry—make sure your recipes follow Barix nutritional guidelines.

Tips must be submitted by January 31, 2012. Please send comments, ideas, recipes and "It Worked For Me" tips to Deb Hart, RD, LD at dhart@foresthealth.com.