

# Folic Acid Checklist

- Deliver the “folic acid every day” message to your client:**  
*“We recommend that you take 400 micrograms of folic acid every day for good health and to help reduce your risk of having a baby with a neural tube birth defect. The best way to get folic acid is by taking a multivitamin with folic acid or a folic acid supplement every day.”*
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- Is client currently planning a pregnancy?**  
If “yes”  
→ **Message:** *“It is imperative that you take folic acid NOW to protect the health of your baby.”*
- If “no”  
→ **Message:** *“Everyone needs folic acid every day for good health and to help prevent birth defects later on.”*
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- Does client take a multivitamin or folic acid supplement every day?**  
If “yes”  
→ **Message:** *“Make sure your multivitamin contains 400 micrograms folic acid.”*
  - Check the label.
  - Instruct client about how to read the label.→ **Message:** *“Remember to take a multivitamin or folic acid pill every day.”*
  - Suggest strategies for remembering to take vitamins.
- If “no”  
→ **Message:** *“The best way to get folic acid is through a multivitamin or folic acid pill.”*
  - Ask client why they do not take a multivitamin.
  - Address and dispel myths and barriers associated with taking multivitamins.
  - Stress the health benefits of folic acid.

**Recommended handout: “Vitamins and Folic Acid”**

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- Encourage the client to include folic acid fortified or folate-rich foods into their diet.**

## **Folic Acid Fortified Foods**

Fortified breakfast cereals  
Enriched bread, rolls, buns  
Enriched rice, pasta  
Enriched cornbread  
Enriched flour tortillas

## **Folate-rich Foods**

Orange juice, strawberries, oranges  
Dark green leafy vegetables (spinach;  
mustard, turnip, collard greens)  
Dried beans and peas, lentils  
Broccoli, asparagus

**Recommended handouts: “Folic Acid Content of Selected Foods & Vitamin Supplements”  
“Folic Acid and Fortified Foods”  
“Food Folate”**



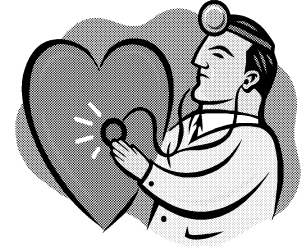


# Vitamins and Folic Acid

## Why do I need folic acid?

Folic acid is a vitamin that is needed every day for healthy body tissues and may lower your risk for having a baby with a neural tube defect. Folic acid also may help lower the risk for:

- ◆ Heart disease
- ◆ Certain cancers
- ◆ Cognitive (brain) diseases
- ◆ Other birth defects, such as heart defects



## Where can I get folic acid?

You can get folic acid from:



**Multivitamins**

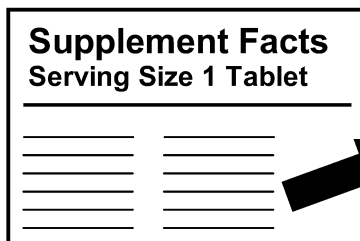
**OR**



**Folic acid pills**

## How much folic acid do I need to take?

Everyone needs folic acid every day for good health. However, women, teenage girls, and younger girls who are able to become pregnant need to make sure they get **400 micrograms** of folic acid every day. The best way is to take a vitamin pill that contains folic acid. Check the label on the bottle to see how much folic acid is in each pill. Look for 400 micrograms (mcg) or 100% of the Daily Value (DV).



**Folic acid**  
**400 micrograms (mcg)**  
**or**  
**100% DV**

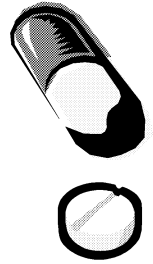


# Taking Vitamins

**Some women have trouble taking vitamins. But there are some things you can do to make it easy for you to take a vitamin pill every day!**

**Can't swallow a pill?**

Folic acid pills are smaller than multivitamins and may be easy to swallow. Or, try chewable vitamins that you don't have to swallow whole.



**Can't remember to take a vitamin every day?**

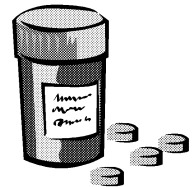
Put the bottle in a place where you will see it each day.



Next to your toothbrush



Near the alarm clock



Near birth control pills or medicines

**Do vitamins upset your stomach?**

Try taking your vitamin after a meal or before bedtime, or try folic acid pills.



**Do you think vitamins cost too much?**

Try store brands that cost less than name brands, or take folic acid pills which may cost less than a penny a pill!



**Do you think vitamins cause weight gain?**

They don't. Vitamins can give you the nutrients you need to stay healthy and active!



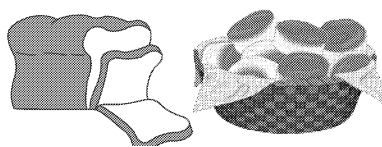
# Folic Acid and Fortified Foods

## *Fortified Facts...*

Since 1998, all *enriched* cereal grain products have had extra folic acid added to them. This was done to help women get more folic acid to help reduce their risk of having a baby with a neural tube defect.

## *What foods have folic acid added to them?*

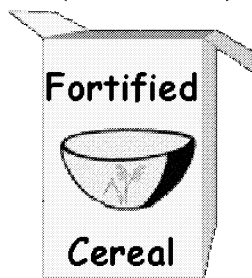
*Enriched* grains and foods made from *enriched* grains have folic acid added to them. These foods say “enriched” on the label. Check the Nutrition Facts panel or ingredients list to see if folic acid has been added to the food. Here are some types of foods that are fortified with folic acid:



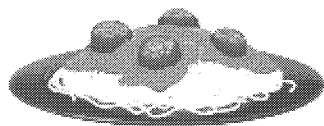
**Breads and rolls**  
(enriched)



**Rice**  
(enriched)



**Fortified**  
**breakfast cereals**



**Pasta**  
**and noodles**  
(enriched)

## *How can I add more of these foods to my diet?*

It's easy! Try eating a bowl of fortified cereal every day, or a side dish of rice or pasta at lunch or dinner. Here are some foods and the amount of folic acid they provide:

Fortified cereal

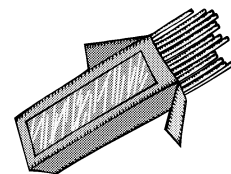
$\frac{1}{2}$  to  $1\frac{1}{3}$  cup has **100-400 micrograms**  
(check the label)

Enriched rice, cooked

1 cup has **95 micrograms**

Enriched spaghetti, cooked

1 cup has **90 micrograms**

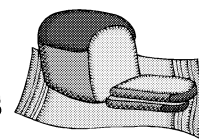


Enriched flour tortilla (10-inch diameter)

1 tortilla has **80 micrograms**

Enriched bread, white

2 slices have **30 micrograms**



## *Smart Tip...*



To get your day's worth of folic acid, eat a bowl of fortified cereal that provides 400 micrograms (mcg) or 100% of the Daily Value (DV) for folic acid per serving.



# Food Folate

## *Is food folate the same as folic acid?*

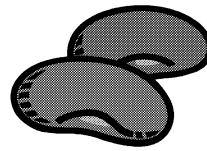
“Food folate” is the form of the vitamin found naturally in some foods. “Folic acid” is the man-made form used in vitamins and added to enriched grain foods. Sometimes the term “folate” is used to describe both forms of the vitamin.

## *Will food folate alone help reduce the risk of neural tube defects?*

Eating **food folate** alone has not been proven to reduce the risk for neural tube defects. Studies have shown that 400 micrograms of folic acid (from a vitamin pill or enriched grain food) **can** help you reduce your risk. But food folate is also important! Women with low levels of folate in their blood may be at increased risk for having a baby with a neural tube defect. Eating a healthy diet that includes foods rich in folate can help keep your blood folate levels from getting too low.

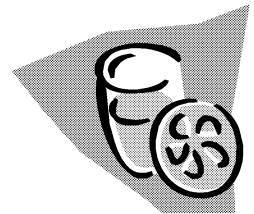
## *What foods have food folate in them?*

Most foods rich in food folate are “plant” foods. Look for these foods:

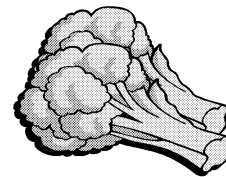


### **Beans**

(black, pinto, kidney, navy, chick peas, lentils)



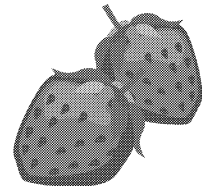
### **Orange juice**



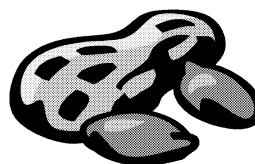
### **Broccoli**



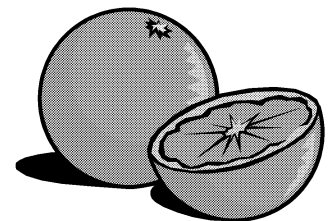
### **Spinach and other dark greens**



### **Strawberries**



### **Peanuts**



### **Oranges**

# Folic Acid Daily News

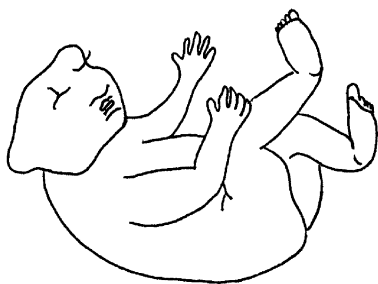
**Extra! Extra!**  
Vitamins and fortified  
foods boost folic acid  
intake!  
(story back page)

Volume 1 Issue 1

Page 1

In Marie and Mark Smith's house, the joys and challenges of raising children are increased because both of their children have neural tube defects, or NTDs. The neural tube, which becomes a baby's brain and spinal cord, forms in the first month after a woman gets pregnant, when the baby is no bigger than a grain of rice. If the tube does not form right, the brain or spinal cord can be damaged.

Two of the most common types of NTDs are anencephaly (an-en-SEF-a-lee), where the brain does not form right and results in the death of the baby, and spina bifida (SPY-na BIF-i-da), which affects the spinal cord.



**Anencephaly**

Billy, the Smith's 10-year-old son, has a mild form of spina bifida and is able to walk with the use of leg braces. He also has mild problems with bladder and bowel control.

Katie, the Smith's 12-year-old daughter, has a more severe form of spina bifida and uses a wheelchair to move around. Katie cannot eat and is fed through a tube in her stomach. She also has trouble breathing.

Marie Smith says that caring for her children puts an extra strain on the family. "Katie has special needs that will increase as she ages. The stress and strain caused by many, many trips to the doctor was almost too much for us to handle. It takes up a great deal of our time and money. But we made it through, and we are just so proud of all the things that Billy and Katie have done!"



**Spina  
bifida**

Mark says "You should never take a healthy child for granted. No one in our family has ever had anything like this happen to them. We are both healthy. We don't smoke or drink, and we don't weigh too much. If this can happen to us, it can happen to you, too."

Marie adds "Doctors say that all women should take the vitamin **folic acid** every day before they get pregnant to reduce the risk of having a baby with an NTD. Women today are lucky to be able to do something to give their future baby the best chance at being healthy. I would tell all women who can become pregnant to take folic acid every day, **even before they begin planning a pregnancy.**"

## Folic Acid Can Help Prevent NTDs!

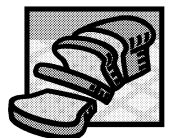
The Institute of Medicine recommends that all women who can become pregnant take **400 micrograms** of the vitamin folic acid every day, while also getting food folate from a varied diet. This amount of folic acid, when taken on a daily basis before a woman becomes pregnant, may lower the risk of having a baby with a neural tube defect by 50 percent to 70 percent!

The best way for women to get the folic acid they need is to take a multivitamin with folic acid or a folic acid pill every day.

## Folic Acid Fortified Foods Help Women Get More Folic Acid

To help women get 400 micrograms of folic acid every day, enriched cereal grain foods are now fortified with folic acid. These foods include:

- Fortified breakfast cereals
- Pasta and noodles
- Rice
- Flour and bread, rolls and buns



Look for the word “Enriched” on the label. Eating these foods will increase intake of folic acid and may help reduce the risk of having a baby with a neural tube defect.

## Words of the Day

**Folic acid:** Man-made form of the vitamin found in multivitamins, folic acid pills, and enriched grain foods.

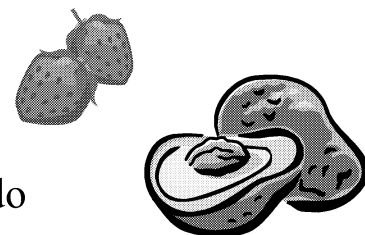
**Food folate:** Natural form of the vitamin found in certain foods.

**Microgram:** The units used to measure the amount of folic acid or folate in vitamins and foods.

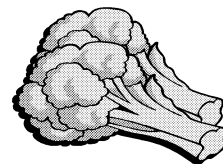
## Foods With Folate Are Heart Healthy!

Eating foods rich in folate as part of a varied diet is healthy and may help prevent heart disease! These foods include:

- Orange juice, strawberries, oranges, avocado



- Dark-green leafy vegetables such as spinach and other greens (mustard, turnip, collard)



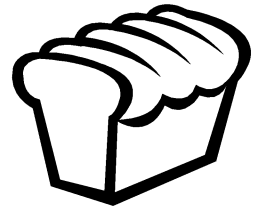
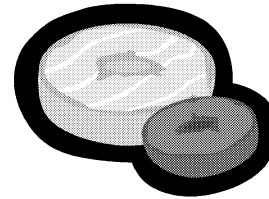
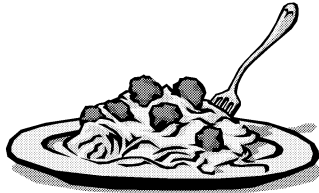
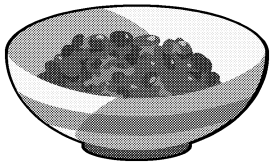
- Asparagus, broccoli, Brussels sprouts, okra

- Dried beans (kidney, black, pinto, navy, chick peas), black-eyed peas, lentils, peanuts



Be sure to include these healthy foods into your diet every day!

# Folic Acid Content of Selected Foods and Vitamin Supplements



Food	Serving size	Synthetic folic acid (micrograms)
<b>Multivitamin containing folic acid</b>	1 pill	400 <sup>1</sup>
<b>Folic acid supplement or pill<sup>2</sup></b>	1 pill	400-800
<b>Fortified ready-to-eat cereal<sup>3</sup></b>	1/2 to 1-1/3 cup	100-400
<b>Rice, white, enriched, cooked</b>	1 cup	95
<b>Spaghetti, enriched, cooked</b>	1 cup	90
<b>Tortilla, flour, enriched, soft</b>	1, 10-inch diameter	80
<b>Grits, enriched, cooked</b>	1/2 cup	40
<b>Toaster pastry</b>	1	40
<b>Bagel, enriched</b>	1, 3-inch diameter	30
<b>Breads, rolls, biscuits, muffin, English muffin (half), enriched</b>	~ 1 piece	15
<b>Crackers, saltine, enriched</b>	~ 5 crackers	15
<b>Meats and fish, breaded or batter-fried with enriched flour</b>	3 ounces	5-15

<sup>1</sup> This is the typical folic acid content of multivitamins. Check the “Supplement Facts” label to be sure.

<sup>2</sup> The content of folic acid supplements vary. Choose a folic acid supplement that contains 400 micrograms folic acid per pill.

<sup>3</sup> Some fortified cereals contain 400 micrograms of folic acid per serving. Check the Nutrition Facts label on the cereal box and look for a cereal that provides “100% Daily Value” for folate or folic acid.

Reference: *J Am Diet Assoc.* 2000; 100:88-94.

# Chicken and Pasta with Orange-Basil Sauce

*For this quick, one-dish meal, purchase a deli-roasted chicken or a cooked turkey breast or use leftover turkey from a holiday meal.*

Folic acid: 70 micrograms

Food folate: ★★★ (an “excellent” source of food folate)

- ¾ cup frozen Florida orange juice **concentrate**, thawed
- ½ cup chicken broth
- 4 teaspoons cornstarch
- 6 ounces packaged enriched dried rotini, or twist pasta
- 1 16-ounce package loose-pack frozen Italian blend (zucchini, carrots, cauliflower, lima beans, and Italian beans) or other mixed vegetables
- 2 cups cubed cooked chicken or turkey
- ¼ cup snipped fresh basil or 2 tablespoons dried basil
- ⅛ teaspoon black pepper

To make the sauce, in a small saucepan combine thawed concentrate, chicken broth, and cornstarch. Cook and stir until thickened and bubbly; cook and stir 2 minutes more.

In a large saucepan cook pasta in boiling, lightly salted water for 5 minutes. Add frozen vegetables; return to boiling. Cook, uncovered, 5 minutes more or until pasta and vegetables are tender. Drain; return to saucepan. Add sauce, chicken, basil, and pepper. Heat and toss until hot.

Makes 4 servings.

**NUTRITION FACTS PER SERVING:** 438 calories, 31 g protein, 62 g carbohydrate, 7 g total fat (2 g saturated fat), 68 mg cholesterol, 3 g dietary fiber, 190 mg sodium. Daily values: 131% vitamin C, 82% vitamin A, 32% thiamin, 19% riboflavin, 50% niacin, 22% iron, 23% potassium.

*Recipe courtesy of the Florida Department of Citrus.*



# Chicken and Rice Bake

*Updating this favorite dish by replacing the canned soup with Florida orange juice concentrate gives it a fresh flavor and cuts the fat from 11 to 3 grams.*

Folic acid: 75 micrograms

Food folate: ★★ (a “good” source of food folate)

- 3 whole medium chicken breasts (about 2¼ pounds total), skinned and halved lengthwise
- ¾ cup frozen Florida orange juice **concentrate**, thawed
- ½ cup thinly sliced celery
- ½ cup chopped onion
- 2 teaspoons instant chicken bouillon granules
- ½ teaspoon dried thyme, crushed
- 1⅓ cups enriched long grain rice, uncooked
- Garlic salt
- Paprika
- Snipped fresh or dried parsley

Rinse chicken; pat dry with paper towels. In a medium saucepan combine thawed concentrate, celery, onion, bouillon granules, thyme, 2 cups water, and dash pepper. Bring to boiling. Transfer to a 3-quart rectangular baking dish. Stir in uncooked rice. Add chicken pieces. Sprinkle lightly with garlic salt, paprika, and additional pepper.

Cover and bake in a 350 degree oven for about 1 hour or until chicken is tender and no longer pink and rice is tender. Sprinkle with snipped parsley before serving.

Makes 6 servings.

**NUTRITION FACTS PER SERVING:** 309 calories, 21 g protein, 49 g carbohydrate, 3 g total fat (1 g saturated fat), 45 mg cholesterol, 1 g dietary fiber, 370 mg sodium.

Daily values: 63% vitamin C, 25% thiamin, 43% niacin, 18% iron, 14% potassium.

*Recipe courtesy of the Florida Department of Citrus.*



# Company Mashed Potatoes

Food folate: ★★ (a “good” source of food folate)

- 2 pounds sweet potatoes, peeled and cut up
- 1½ pounds white potatoes, peeled and cut up
- ½ cup chopped onion
- 2 tablespoons margarine or butter
- ¾ cup frozen Florida orange juice **concentrate**, thawed
- ⅓ cup fat-free dairy sour cream
- ½ teaspoon garlic salt

Place all potatoes in a Dutch oven; add enough water to cover. Bring to boiling; reduce heat. Cover and simmer about 25 minutes or until tender. Meanwhile, in a skillet cook onion in margarine until tender but not brown. Drain potatoes. Mash or beat with an electric mixer on low speed. Add onion mixture, thawed concentrate, sour cream, garlic salt, and ¼ teaspoon pepper. Beat until fluffy.

Makes 8 servings.

**NUTRITION FACTS PER SERVING:** 246 calories, 4 g protein, 51 g carbohydrate, 3 g total fat (1 g saturated fat), 0 mg cholesterol, 5 g dietary fiber, 183 mg sodium.

Daily values: 77% vitamin C, 198% vitamin A, 15% thiamin, 22% potassium.

*Recipe courtesy of the Florida Department of Citrus.*



# Citrus Spinach Salad

*Loaded with vitamin C, vitamin A, and iron, as well as folate, this change-of-pace salad is great with chicken or fish.*

Food folate: ★★ (an “excellent” source of food folate)

- 8 cups torn fresh spinach
- 1½ cups sliced fresh mushrooms
- ¼ cup sliced green onions
- 2 slices turkey bacon, chopped
- 2 teaspoons cornstarch
- ½ teaspoon finely shredded orange peel
- 1 cup Florida orange juice, ready-to-drink
- ⅛ teaspoon garlic salt
- ⅛ teaspoon ground black pepper
- 3 Florida oranges, peeled, halved, and sliced
- ½ of a medium sweet orange or red pepper, cut into thin bite-size strips

In a large salad bowl combine spinach, mushrooms, and onions; set aside. In a 12-inch skillet or a Dutch oven, cook bacon over medium heat until crisp. Remove bacon; drain on paper towels. Set aside.

Wipe out skillet with a paper towel. In a bowl combine cornstarch, orange peel, orange juice, garlic salt, and black pepper; add to skillet. Cook and stir until thickened and bubbly; cook and stir 2 minutes more. Remove from heat. Add spinach mixture. Toss until coated. If desired, return salad to heat and toss 30 to 60 seconds more or until slightly wilted. Return mixture to salad bowl; toss in bacon, oranges, and pepper strips.

Makes 4 side-dish servings.

**NUTRITION FACTS PER SERVING:** 105 calories, 6 g protein, 19 g carbohydrate, 2 g total fat (1 g saturated fat), 5 mg cholesterol, 5 g dietary fiber, 259 mg sodium.

Daily values: 162% vitamin C, 89% vitamin A, 13% thiamin, 21% riboflavin, 12% niacin, 11% calcium, 26% iron, 27% potassium.

*Recipe courtesy of the Florida Department of Citrus.*





# 30-Minute Chicken Dinner

*A colorful blend of vegetables and frozen Florida orange juice concentrate helps this dish go together in a flash.*

Folic acid: 105 micrograms

Food folate: ★★ (a “good” source of food folate)

Nonstick spray coating

½ cup chopped onion

3 cups water

1¼ cups enriched long grain rice, uncooked

¾ cup frozen Florida orange juice **concentrate**, thawed

3 tablespoons reduced-sodium soy sauce

¼ teaspoon ground ginger

⅛ to ¼ teaspoon black pepper

3 cups loose-pack frozen stir-fry vegetables (sugar snap peas, carrots, onions, and mushrooms)

1 cup chopped cooked chicken

Spray an unheated large saucepan with nonstick coating. Add onion; cook and stir over medium heat until onion is tender, but not brown. Carefully stir in water, uncooked rice, thawed concentrate, soy sauce, ginger, and pepper. Bring to boil; reduce heat. Cover and simmer for 15 minutes.

Sprinkle frozen vegetables on top of mixture; do not stir in. Cover and simmer about 5 minutes more or until rice and vegetables are tender and liquid is absorbed. Stir in chicken; heat through.

Makes 4 servings.

**NUTRITION FACTS PER SERVING:** 421 calories, 19 g protein, 75 g carbohydrate, 4 g total fat (1 g saturated fat), 34 mg cholesterol, 2 g dietary fiber, 459 mg sodium.

Daily values: 93% vitamin C, 32% vitamin A, 35% thiamin, 33% niacin, 23% iron, 16% potassium.

*Recipe courtesy of the Florida Department of Citrus.*



# Florida Refresher

*Sip this fruity drink at breakfast, as a refreshing snack, or for a fat-free dessert.*

Food folate: ★★★ (an “excellent” source of food folate)

2 cups buttermilk  
1 cup cut-up strawberries  
 $\frac{3}{4}$  cup frozen Florida orange juice **concentrate** (do not thaw)  
6 ice cubes  
2 tablespoons honey  
1 teaspoon vanilla

Place all ingredients in a blender. Cover and blend until frothy. If desired, garnish with additional strawberries.

Makes 3 (12-ounce) servings.

NUTRITION FACTS PER SERVING: 194 calories, 7 g protein, 39 g carbohydrate, 2 g total fat (1 g saturated fat), 6 mg cholesterol, 1 g dietary fiber, 174 mg sodium.  
Daily value: 180% vitamin C, 14% thiamin, 17% riboflavin, 17% calcium, 20% potassium.

*Recipe courtesy of the Florida Department of Citrus.*



# Ranch Beans

Food folate: ★★ ★ (an “excellent” source of food folate)

- ¼ cup green pepper, chopped
- 1¾ cups canned vegetarian beans
- 1¾ cups canned kidney beans, red, drained
- 2 tablespoons catsup
- 2 tablespoons molasses
- ½ teaspoon dried onion

## Conventional Method:

Place all ingredients in saucepan and heat thoroughly, about 10 minutes.

## Microwave Method:

Place all ingredients in microwave-safe bowl. Cover with waxed paper. Cook on high, stirring every 2 minutes. Cook about 5 minutes.

Makes 4 (1-cup) servings.

NUTRITION FACTS PER SERVING: 240 calories, 1 g total fat (trace of saturated fat), 0 mg cholesterol, 916 mg sodium.

*Recipe courtesy of the U.S. Department of Agriculture.*



# My Commitment to Change

- ◆ Neural tube defects
- ◆ All women of childbearing age are at risk
- ◆ Take folic acid every day to help reduce risk



I, \_\_\_\_\_, recognize that all women, teenagers, and girls who can get pregnant, including me, are at risk for having a baby with a neural tube defect. Therefore, I pledge to make a commitment to consume 400 micrograms of folic acid every day so I can help reduce my risk of having a baby with a neural tube defect.

\_\_\_\_\_  
Signature





# Vitamin Case Studies

1. Mary bought vitamins at the store last month but forgets to take them. She keeps them inside her medicine chest. What would you suggest Mary do?
2. Maria wants to take a vitamin every day but she thinks it will make her gain weight. What would you tell Maria?
3. Jean went to the store to buy vitamins. She looked for brands that she had seen on TV but they were all too expensive, and she went home without buying any. What should Jean do the next time she goes to the store?
4. Pam will not take a multivitamin because the pill is too big for her to swallow. What would you tell Pam to try?
5. Lisa will not take a vitamin because it upsets her stomach. What would you tell Lisa to do?

# Folate Café

## Entrees

### For Starters...

**House Salad:** Blend of iceberg and romaine lettuce with mushrooms, tomatoes, carrots, and onions.

**Spinach Salad:** Fresh spinach with mushrooms, red onion, tomatoes, and dressing.

**Pasta Salad:** Shell macaroni with assorted vegetables in a light dressing.

**Cream of Chicken Soup:** Chunks of white chicken meat with chopped carrots and celery in a light cream soup base.

**Lentil Soup:** Tender lentils cooked gently with a hint of spices.

**Raw Vegetable Sampler:** A mix of finger-sized broccoli, cauliflower, carrots and celery with our special dipping sauce.

### Beverages

Soda (cola, diet cola, orange)  
Spring water  
Juice (apple, orange)  
Coffee, tea  
Milk

**Beans 'n Rice:** Black beans served over white or yellow rice. Served with Cuban bread.

**Turkey Club:** Sliced smoked turkey on a white roll with mayonnaise, lettuce, and tomato. Served with potato chips or fresh fruit.

**Mexi Melt:** Flour tortillas filled with pinto beans and covered with our special sauce and melted cheese.

**Chicken Dinner:** 2 pieces of fried chicken with a side of cooked greens and cornbread.

**Chef Salad:** Iceberg and romaine lettuce with chunks of smoked ham and turkey, cheddar and jack cheese, boiled egg, and tomato.

**Soup 'n Salad:** Your choice of any soup and salad from our menu.

### Sweet Endings

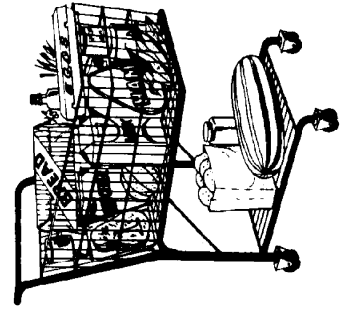
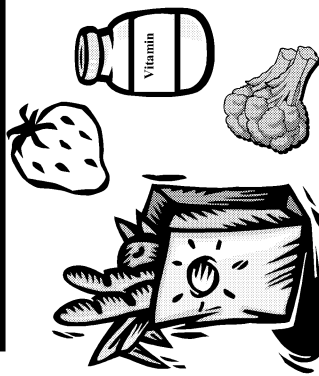
Chocolate Cake  
Fresh Fruit Plate—bananas, oranges, grapes, strawberries, kiwi fruit  
Orange Sherbet



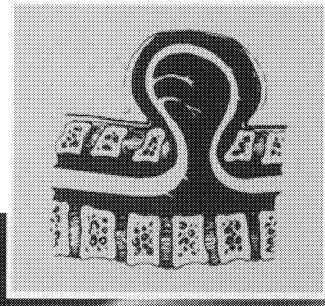
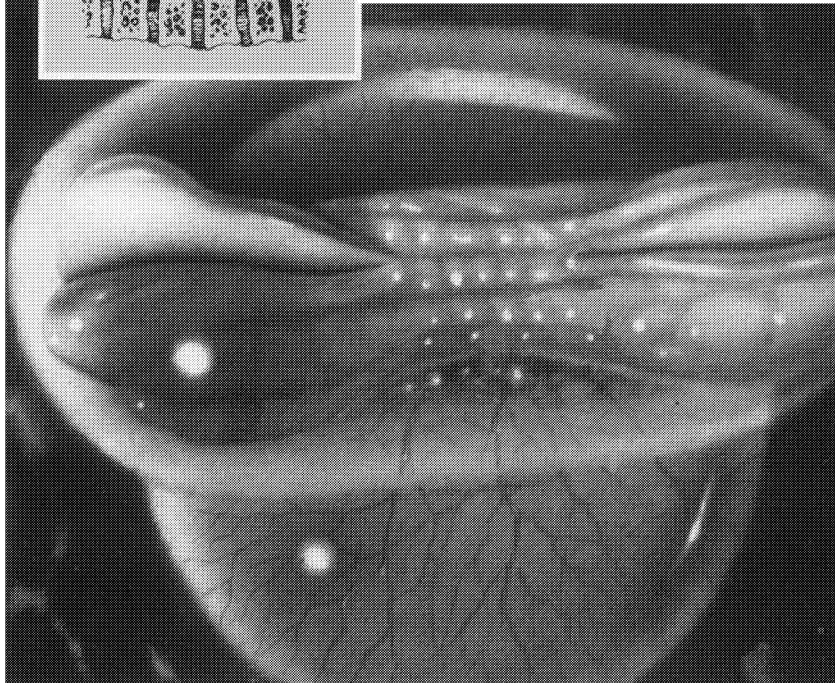
# MY SHOPPING CART

Select the items that you buy for yourself and/or your family at the supermarket.

<u>VITAMIN SUPPLEMENTS</u>	<u>VEGETABLES</u>	<u>FRUITS &amp; JUICES</u>	<u>BREADS, CEREALS &amp; GRAINS</u>	<u>PROTEIN</u>	<u>MILK PRODUCTS</u>
Name brand multivitamin	Avocado	Apples	Bagels	Beans, black	Buttermilk
Store brand multivitamin	Asparagus	Apple juice	Bread, wheat sliced	Beans, kidney	Cheese, American
Folic acid supplement	Broccoli	Bananas	Bread, white sliced	Beans, navy	Cheese, cheddar
	Carrots	Blueberries	Cereal, breakfast	Beans, pinto	Cheese, cottage
	Cauliflower	Cranberry juice	Cookies	Beef	Cheese, cream
	Corn	Grapes	Crackers	Chick peas	Cheese, processed
	Cucumber	Grapefruit	Egg noodles	Chicken	Cream, sour
	Green beans	Mango	Macaroni	Eggs	Ice cream
	Okra	Melon	Oatmeal	Fish	Milk, chocolate
	Plantains	Orange	Pasta	Lentils	Milk, low fat
	Potatoes	Orange juice	Rice	Organ meats	Milk, skim
	Romaine lettuce	Papaya	Rolls, dinner	Pork	Milk, whole
	Spinach	Peaches	Tortillas, corn	Shrimp	Yogurt
	Squash	Strawberries	Tortillas, flour	Veal	Yogurt, frozen



# What is a neural tube?



- ◆ Forms baby's brain and spinal cord
- ◆ Develops during first weeks of pregnancy





## **Spina bifida**

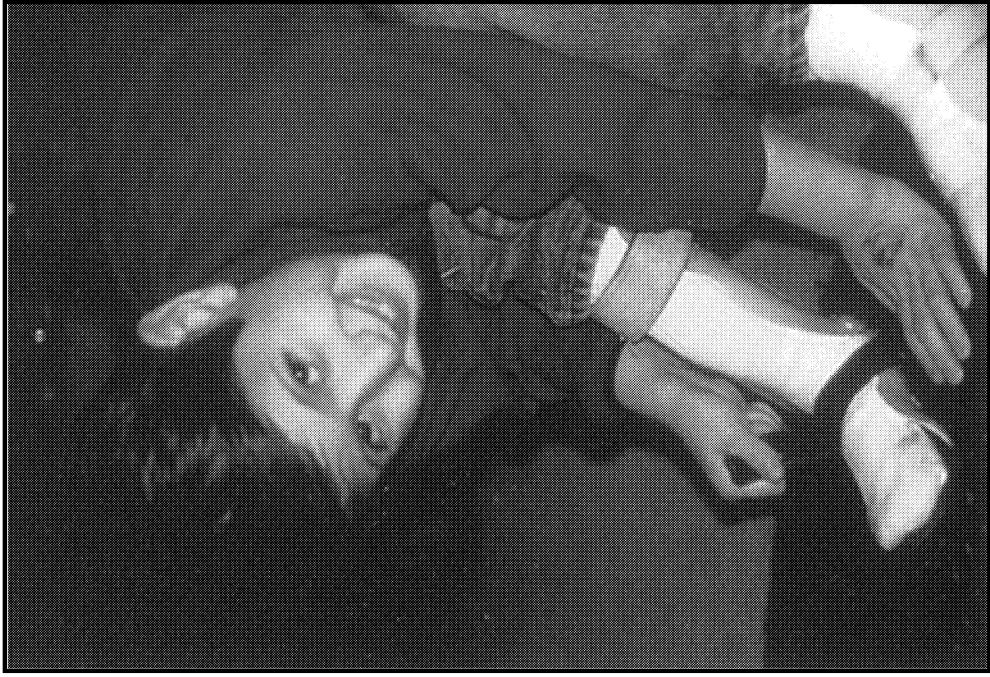


## **The Buchieri Family**



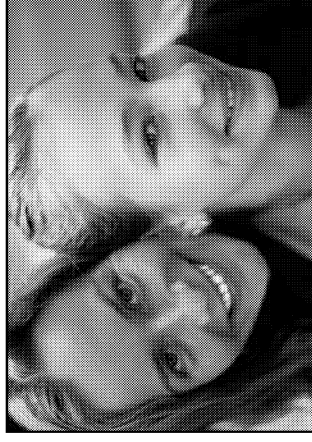
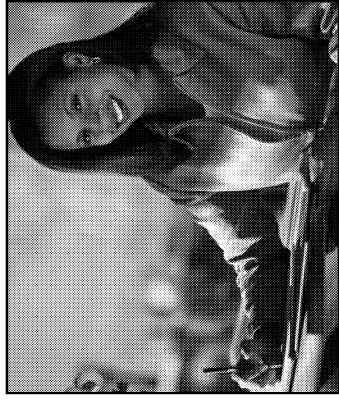
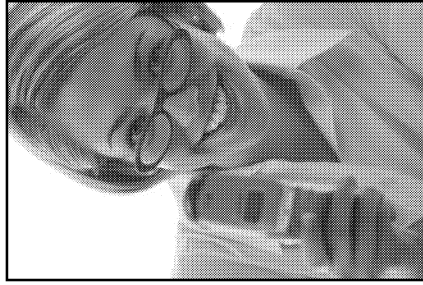
**Nicole has a  
more severe  
case of spina  
bifida than her  
brother. She  
must use a  
wheelchair.**





**Joey can walk  
with the help of  
his leg braces.  
His case is not  
severe. Joey's  
spina bifida is  
not obvious to  
most people.**

# ANYONE can have an NTD-affected pregnancy!



**Good News!**

**400 micrograms of  
folic acid every day  
plus a healthy diet  
lowers the risk of  
neural tube defects!**

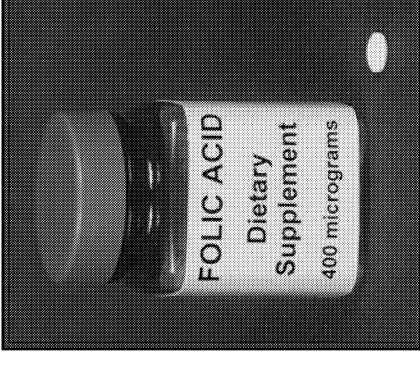


# **YOU SHOULD...**

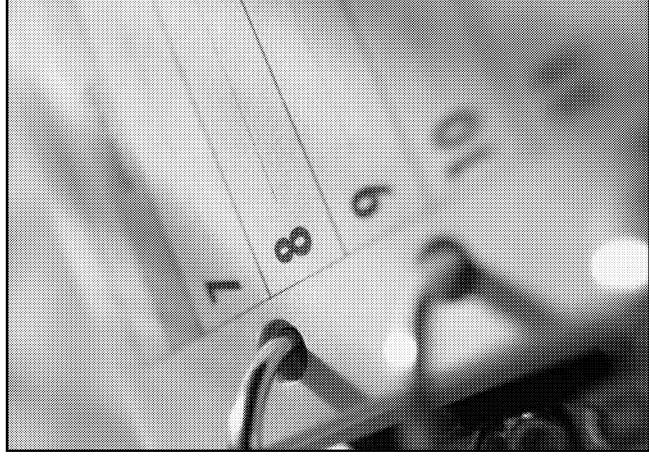
# **TAKE FOLIC ACID**

# **EVERY DAY**

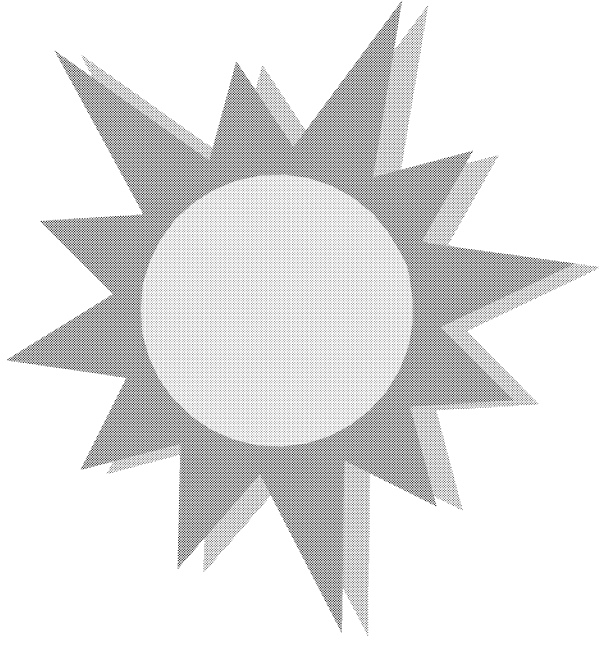
*Even if you are  
not planning a  
pregnancy!*



Folic acid pill



***Folic Acid  
Every Day***



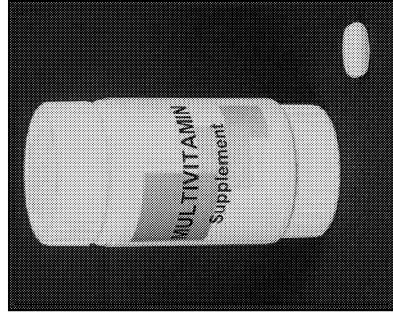
***Protect your Health  
for a Lifetime!***



# Where can you find folic acid?

## Man-made folic acid

- ◆ Multivitamin with folic acid
- ◆ Folic acid pill
- ◆ Folic acid fortified foods

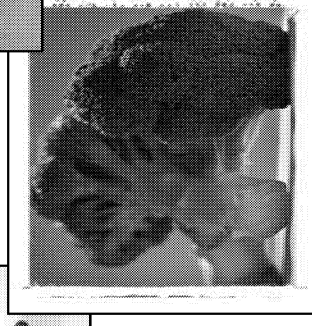
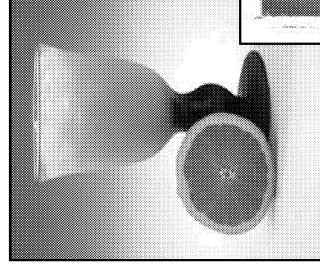
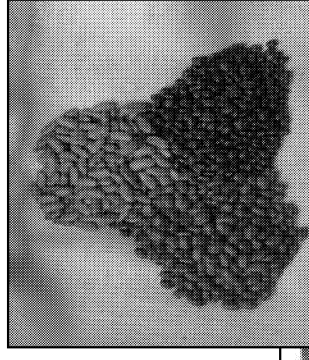


Multivitamin



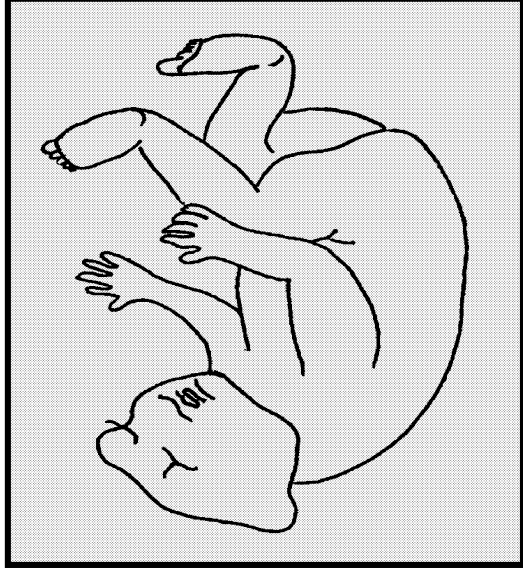
## Naturally occurring food folate

- ◆ Certain foods

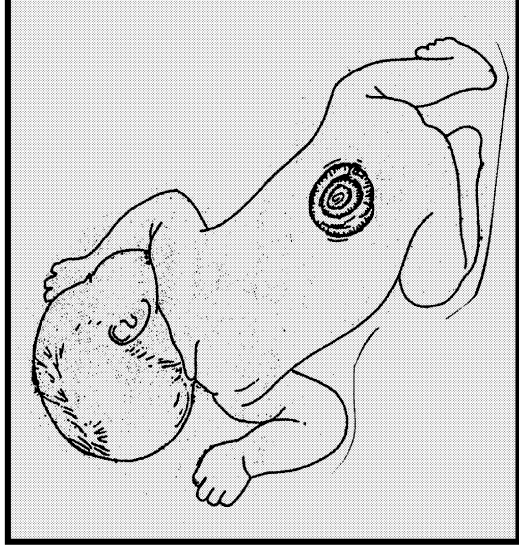


# Proven benefits of folic acid

- ◆ Need every day for healthy tissue
- ◆ Lowers risk for neural tube defects



**Anencephaly**

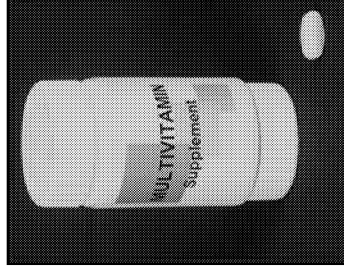
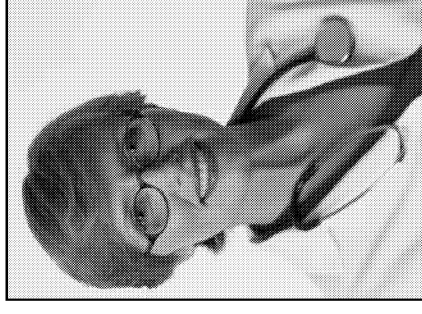


**Spina bifida**

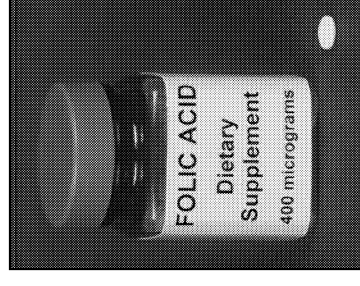
# Folic acid recommendation

- ◆ 400 micrograms folic acid every day
- ◆ Eat a healthy, varied diet
- ◆ Supported by:

*U.S. Public Health Service  
Institute of Medicine  
Various organizations*



Multivitamin



Folic acid pill

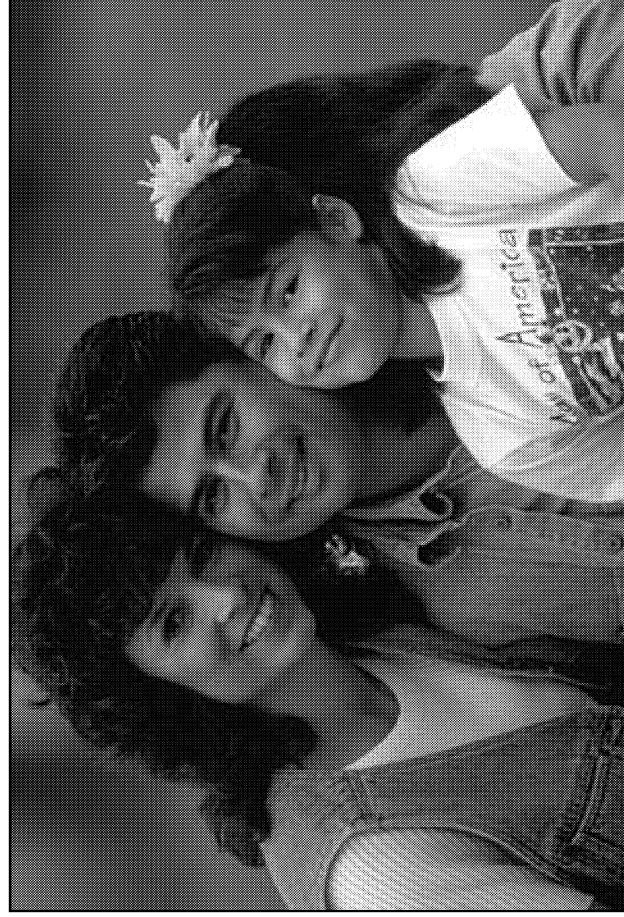
# Other health benefits of folic acid

- ◆ May lower risk for
  - Other birth defects
  - Heart disease
  - Certain cancers
  - Cognitive (brain) diseases
- ◆ Improve overall health and vitality
- ◆ Good for the entire family





Be part of  
something  
important...



**Take**  
***folic acid***  
**every day!**

# How do you get folic acid?

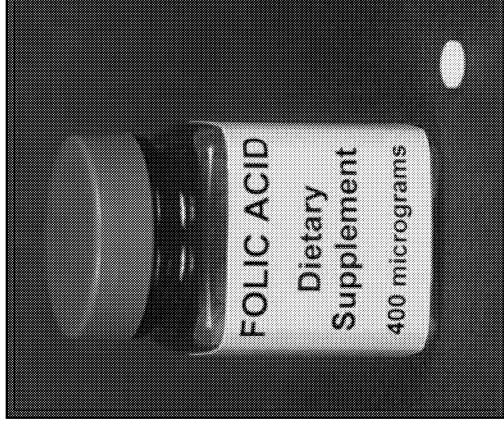
The best way is  
through multivitamins  
with folic acid



or  
folic acid pills



# Folic acid



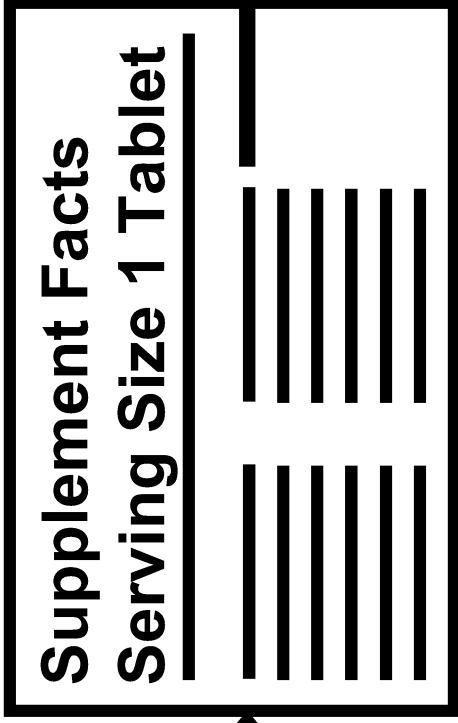
## **Multivitamins**

contain more than  
one vitamin and/or  
mineral in a pill

## **Folic acid pills**

contain only folic acid  
in a small pill

# Check the label

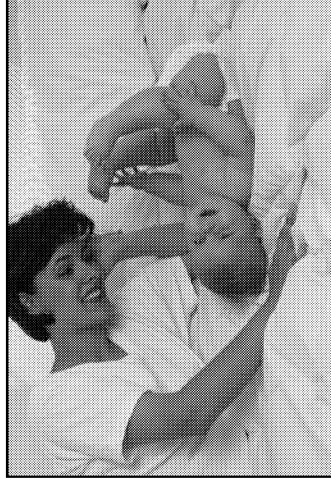


Folic acid  
400 micrograms (mcg)



# **Why should YOU take a multivitamin or supplement that contains folic acid?**

- ◆ **We don't always eat right**  
Healthy cells make a healthy body, and all cells need folic acid every day
- ◆ **Reduce risk for birth defects**



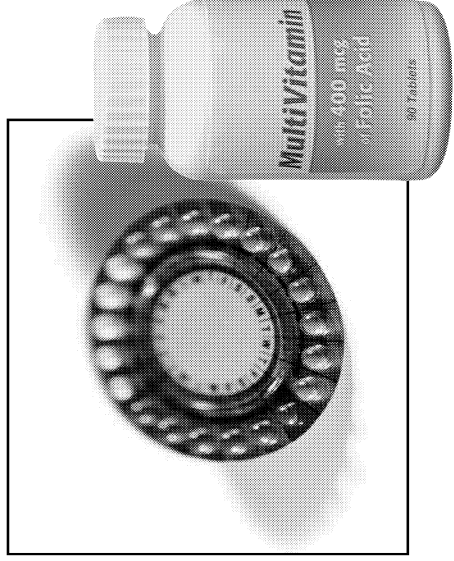
# Do you think multivitamins...

- ◆ **Are too big?**
  - Folic acid pills
  - Chewable multivitamin
- ◆ **Increase appetite and cause weight gain?**
  - No scientific evidence
- ◆ **Cause upset stomach?**
  - Take after a meal
- ◆ **Cost too much?**
  - Store brands
  - Folic acid pills



# Remember to take your folic acid!

*Put your multivitamins or folic acid pill...*



**Next to your  
birth control  
pills or other  
medications**



**Next to your  
toothbrush**



**Next to your  
coffee pot**

# Folic acid plus a healthy diet!



**In addition to taking a multivitamin with folic acid or a folic acid pill...**

- Eat a healthy, varied diet**
- ◆ Foods fortified with folic acid**
- ◆ Foods naturally rich in folate**

# Fortified breakfast cereals

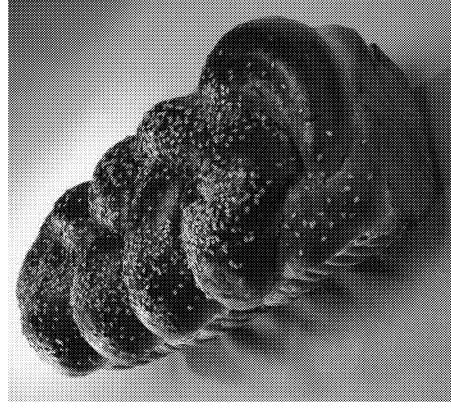
- ◆ Many provide from 100 to 400 micrograms folic acid per serving
- ◆ Check the label!
- ◆ Look for 100% of the Daily Value (DV) for folic acid or folate



# Enriched grain foods

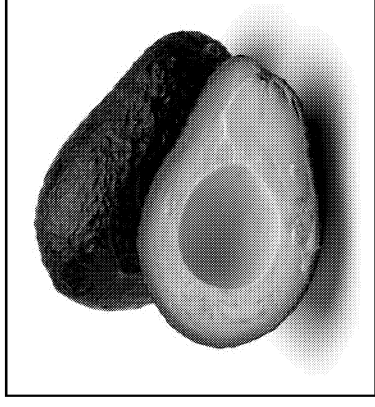
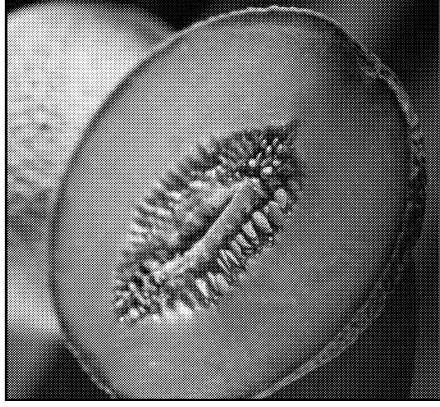
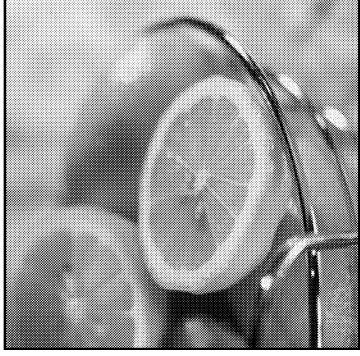
## How much man-made folic acid?

- ◆ Enriched bread, white  
2 slices = 30 micrograms
- ◆ Enriched flour tortilla, 10 inches  
1 each = 80 micrograms
- ◆ Enriched spaghetti, cooked  
1 cup = 90 micrograms
- ◆ Enriched rice, cooked  
1 cup = 95 micrograms



# Food folate

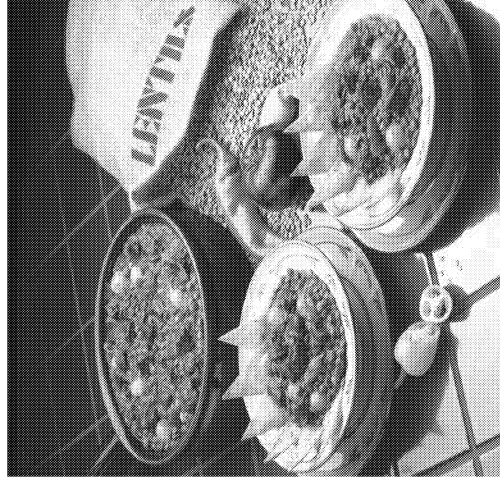
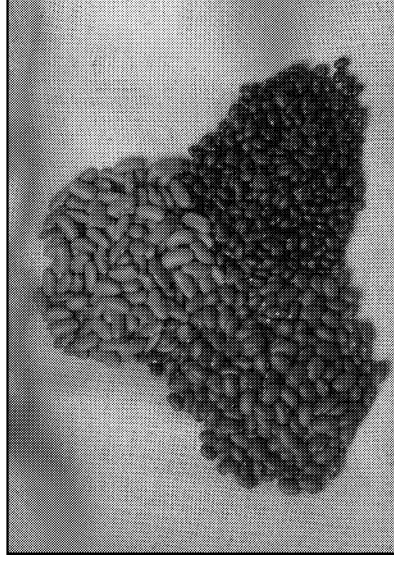
- ◆ Orange juice
- ◆ Oranges
- ◆ Strawberries
- ◆ Cantaloupe
- ◆ Avocado





# Food folate

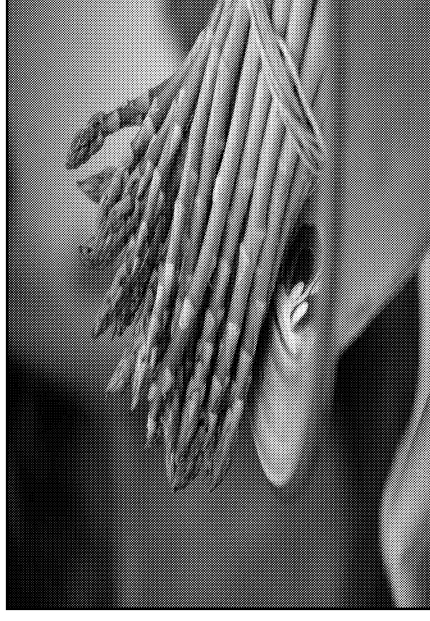
- ◆ Dried beans and peas
  - Black, kidney, navy, pinto beans
  - Black-eyed peas
  - Chick peas (garbanzo beans)
  - Lentils
  - Peanuts





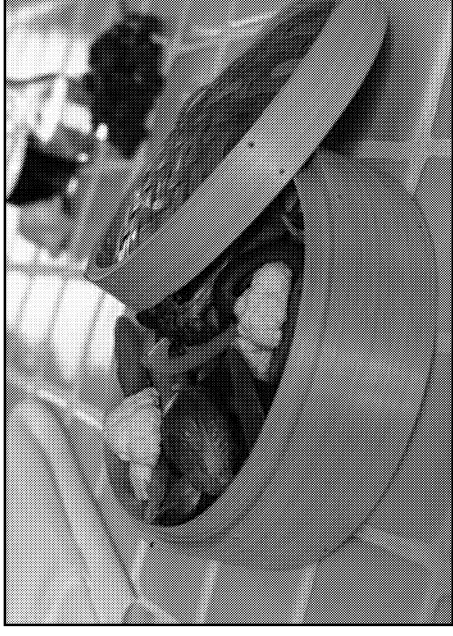
# Food folate

- ◆ Dark green leafy vegetables
  - Spinach
  - Greens: collard, mustard, turnip
- ◆ Other vegetables
  - Asparagus
  - Broccoli
  - Brussels sprouts
  - Okra





# Food preparation

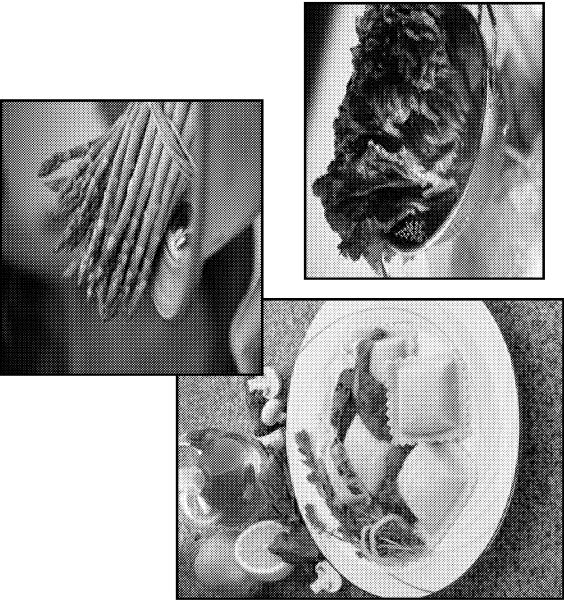


- ◆ Use less cooking water
  - Steam, microwave
  - Roast, grill
- ◆ Reuse cooking water

# Make small changes to your meals!



## Lunch



## Breakfast



## Dinner

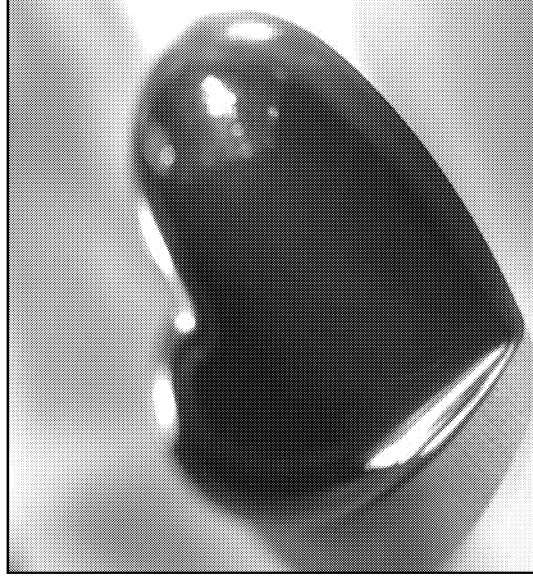
# Health benefits of food folate

- ◆ Healthy tissues
- ◆ May lower risk for
  - Heart disease
  - Certain cancers
  - Cognitive (brain) diseases
- ◆ Improve overall health and vitality
- ◆ Good for the entire family



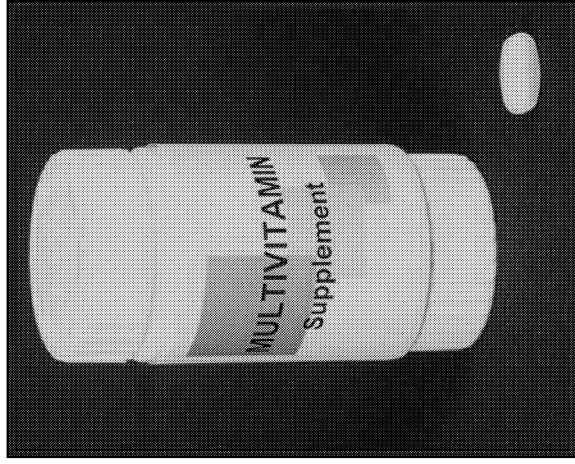
# Foods rich in folate

- ◆ Low in calories
- ◆ Low in fat
- ◆ No cholesterol
- ◆ High fiber
- ◆ Rich in other vitamins & minerals



**Heart-healthy  
foods**

# Protect your health AND reduce neural tube defect risk



# AND



**Get 400 micrograms of  
folic acid every day by  
taking a multivitamin or  
folic acid pill**

**Eat a healthy diet including  
folic acid fortified and  
folate-rich foods**