

# All About Iron For Women and Children

## IRON BASICS

Iron in the form of hemoglobin is essential for carrying oxygen to all body cells. A lack of it can lead to iron deficiency anemia with some serious health effects. In women, iron deficiency leads to persistent colds, intense tiredness, pale skin colouring, heavy menstrual losses and poor concentration. Iron deficiency during pregnancy can lead to an early delivery and low birth weight.

In infants and children, iron deficiency can affect intelligence, delay development and cause behavioural problems. So how much iron do women and young children need?

If you are a woman in the child-bearing years and/or the parent of young children, you need to pay special attention to iron intake. Studies show that women and children are prone to developing low iron stores and iron deficiency. Women who are pregnant, vegetarian or take part in regular endurance activities, such as running, are at even higher risk of suffering from poor iron health.



## THE DIETARY REFERENCE INTAKE (DRI) FOR IRON

The amount of iron you need to get from food daily is listed as the DRI. This is a new recommendation and is higher than previous recommendations.

Dietary Reference Intake for Iron			
Age Years	Iron Needed Daily (milligrams)	Age Years	Iron Needed Daily (milligrams)
Children (girls & boys)		Pregnancy	27
1-3	7	Breastfeeding (before menstruation resumes)	
4-8	10	< or = 18 y	10
Girls and Women		19-50 y	9
9-13	8	Vegetarians *	
14-18	15	14-18 y	26
19-30	18	19-30 y	33
31-50	18		
51+	8		

Note: The bioavailability of iron from non-heme sources (see back for definition) is decreased. Therefore vegetarians require 1.8 x more iron than non-vegetarians (meat eaters).

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## FOOD SOURCES OF IRON

The iron in food comes in two forms:

- HEME iron, found only in meat, fish and poultry is the form of iron that is well absorbed. Its absorption is not affected by other foods in your diet. Since vegetarians do not eat these foods they often have more difficulty meeting iron needs.
- NON-HEME iron, found in foods such as eggs, whole grains, nuts, seeds and legumes is not as useful to you because its absorption is affected by other foods in your diet. See *Tips for Getting the Most Iron From Foods*.

## WHAT ABOUT THE MEN IN YOUR LIFE?

Men need less iron than women throughout life. From age 9 on, they need 8 milligrams daily and during the rapid growth years (14-18 years), the DRI jumps to 11 mg daily.

## TIPS FOR GETTING THE MOST IRON FROM FOODS

You will increase the non-heme iron absorbed from foods by:

- ✓ Including a food rich in vitamin C at every meal. Vitamin C rich foods include: any juice, a citrus fruit (orange or grapefruit), cantaloupe or other melon, strawberries, broccoli, pepper, potato.
- ✓ Including some meat, poultry and fish in your meal. A factor in these foods promotes the absorption of the non-heme iron.
- ✓ Including one iron containing food and one food that increases iron absorption (vitamin C source or meat) at each meal. See *High Iron Combos*.
- ✓ Avoiding coffee and tea for one hour after eating. Coffee reduces iron absorption by 35% and tea cuts it by 60%.
- ✓ Using iron-enriched pasta. Many imported brands are not enriched.

## NO IRON HERE

Dark green vegetables such as spinach, Swiss chard and beet greens contain iron but it is not as easily absorbed because it is bound up with dietary substances such as oxalate and polyphenols. Go ahead and enjoy these foods for other nutrients— just don't count on them for iron!

## TO SUPPLEMENT OR NOT?

Iron supplements are non-heme iron and are best absorbed when taken along with a meal that contains some meat, fish, poultry and a food containing vitamin C. Smaller doses as found in multivitamin preparations are usually tolerated well. Be aware however that higher doses of iron (over 45 mg) may cause nausea, constipation or diarrhea. Always take extra care to keep iron supplements out of the reach of young children. Iron supplements are a common cause of accidental poisoning in the home.

## TOP CHOICES FOR IRON

- Red meat— beef, lamb, liver\*, kidney\*
- Clams, oysters
- Beans, lentils, split peas
- Enriched, ready-to-eat breakfast cereal
- Black strap molasses
- Other meats, poultry, fish
- Prune juice
- Dried fruit— apricots, figs, raisins
- Nuts— almonds, Brazil nuts, cashews, hazelnuts, peanuts
- Seeds— pumpkin, squash, sesame
- Egg
- Whole wheat bread

*\*Not recommended during pregnancy*

## HIGH IRON COMBOS

Try some of these higher iron combos to help meet your iron needs

Breakfast ideas:

- Enriched ready-to-eat breakfast cereal topped with dried fruit and 1/2 grapefruit\*
- Poached egg, 2 slices whole wheat toast and 1/2 cup orange juice\*

Lunch ideas:

- Roast beef sandwich on whole wheat bread and green pepper strips\*
- Split pea soup, whole wheat bun and 1/4 melon\*

Dinner Ideas:

- Enriched pasta with meat sauce and broccoli\*
- Baked beans with lean ham and whole grain toast and tomato juice\*

Snacks:

- Nuts with an orange
- Peanut butter sandwich on whole wheat bread with apple juice\*

*\*All these foods are sources of vitamin C.*