



# McLAREN Blood Conservation PROGRAM

## Iron Deficiency Anemia – Use of Iron Supplements

Iron supplementation is indicated when diet alone cannot restore low iron levels to normal within an acceptable timeframe. Iron is very important for the production of hemoglobin in your blood and for supplying oxygen to the red blood cells. If your body is low in iron, iron deficient anemia may develop. Your doctor may prescribe an iron supplement for this condition.

### How to take

- Iron supplements are best taken two hours after a meal. Your doctor may recommend that you take iron supplements with orange juice or with a vitamin C tablet. Vitamin C in orange juice or tablet form helps increase iron absorption.

If iron upsets your stomach, your doctor may recommend that you take the iron with food or after meals with a full glass of water along with a Vitamin C tablet.

- Liquid forms of iron should be diluted with water or juice. If liquid iron is recommended, sip the iron through a straw to prevent staining of the teeth.

### What you need to know about taking Iron

- Do not eat and/or drink foods with Vitamin C such as orange juice, strawberries, broccoli, and others. Your doctor may also recommend taking a Vitamin C supplement. Vitamin C helps your body to absorb iron.
- Do not take iron with milk or eggs. This can limit the absorption of iron.
- Do not take iron with antacids. It can decrease the effect of iron.

- Do not drink coffee or tea with a meal or within one hour after. It makes it much harder for your body to absorb the iron.
- Do not take iron with food products that contain large amounts of calcium such as milk, bran flakes, lentils, broccoli, potatoes, and oatmeal. Calcium can decrease iron absorption by a third.

### Side Effects

Iron supplements can cause constipation, therefore; your doctor may recommend a stool softener or a laxative. Iron preparations can also cause stomach cramps, stomach irritation, heartburn, nausea, and vomiting the first few days as your body adjusts to the medication. Iron almost always turns stools dark green or black. This is due to unabsorbed iron which is a harmless side effect of the supplement. Call your doctor if you develop severe stomach pains, chest pain, clammy skin, bluish colored lips or fingernails, diarrhea, tarry stools, weak and rapid pulse, or unusual tiredness.

### Precaution

Iron preparations are very dangerous for children. An overdose can be fatal. **It is important to keep iron supplements tightly capped and away from children's reach.** Any time excessive iron intake is suspected, **immediately** call your physician or Poison Control Center, or visit your local emergency department.





# McLAREN Blood Conservation PROGRAM

## Iron Deficiency Anemia – Foods Rich in Iron

Iron is an vital element that the body needs to maintain healthy red blood cells. Red blood cells carry oxygen from your lungs to all the tissues in your body. It is important to include iron-rich foods in your diet every day in order to maintain normal iron levels. A decreased amount of iron in your diet can lead to iron deficiency anemia. Iron Deficiency Anemia may be prevented by including foods rich in iron into your daily meals. In addition to iron, Vitamin B12 and folic acid are also needed for red blood cell production and healthy cell growth.

Vitamin C (ascorbic acid) has been proven to improve our cells ability to absorb iron. Therefore, all meals should include food or drinks that contain Vitamin C.

### Excellent food sources of Iron

Beef	Veal	Oysters	Tuna
Calf/Beef Liver	Chicken	Sardines	Scallops
Pork	Chicken Liver	Clams	Mackerel
Turkey	Lamb	Shrimp	Salmon

### Good food sources of Iron

Iron Fortified Cereals  
 Spinach  
 Eggs  
 Chard  
 Whole and Enriched Grains  
 Blackstrap Molasses  
 Greens: dandelion, mustard, turnip, beet, collard  
 Beans: Lima, lentils, peas, soybeans baked beans  
 Dried Fruit: apricots, prunes, raisins, peaches, dates

### Food source with Vitamin C (ascorbic acid)

Eating/drinking a source of Vitamin C with (non-meat) iron-rich foods can help your body absorb more iron.

Lemons	Oranges	Grapefruit
Tangerines	Mango	Papaya
Honeydew	Cantaloupe	Strawberries
Kiwi	Tomatoes	Spinach
Greens	Broccoli	Green pepper
Chili Peppers	Sweet Peppers	Brussel Sprouts

### Other helpful dietary guidelines

- Include food sources of Vitamin B12. Major sources include all meats, liver, and dairy products.
- Include food sources of Folic Acid. Sources include livers, asparagus, leafy greens, spinach, dried beans, whole wheat, wheat bran, wheat germ, yeast, oranges, broccoli, and cabbage.
- Cooking foods in iron skillets or pots, steel woks and steel cookware may add extra iron to foods.
- Certain foods that keep your body from absorbing iron from iron-rich foods are coffee, tea, high-fiber foods and soy products (tofu, soybeans).
- To increase the absorption of iron:
  - Drink coffee and tea separately from meals that contain iron-rich foods.
  - Eat high-fiber foods and soy products with a good source of Vitamin C.
  - Eat high-fiber foods and soy products with meat, fish, or poultry (chicken).



# McLAREN Blood Conservation PROGRAM

## Anemia—What is it?

A lower than normal number of red blood cells (RBCs) in the blood or a below normal hemoglobin (HEE-muh-glow-bin) is called anemia. Hemoglobin is a protein in the red blood cells that gives the red color to the blood. It also transports oxygen from your lungs to all parts of your body. Because there are fewer red blood cells in anemia, not enough oxygen gets to the rest of the body. This can cause a person to feel very tired along with other symptoms that may get in the way of your daily activities.

## Signs and Symptoms

The most common symptom of anemia is fatigue (feeling very tired or weak). Other signs of anemia are:

- Shortness of breath
- Dizziness
- Headache
- A fast or irregular heartbeat
- Chest pain
- Numbness or coldness in the hands and feet
- Pale skin
- Irritability
- Poor concentration
- Inflammation or soreness of the tongue
- Brittle nails
- Odd food cravings (called pica)
- Decreased appetite especially in children

Note: Anemia often goes undetected because the symptoms can vary from severe to extremely mild and vague.

## Causes of Anemia

There can be many causes of anemia. The most common type of anemia is due to iron deficiency. This happens when there is not enough iron in your diet. A lack of certain vitamins (folic acid, vitamin B6, and vitamin B12) in the diet can also lead to a vitamin deficiency anemia. Other types of anemia are hereditary (passed down from parents), like sickle cell disease and thalassemia or can be caused by blood loss from various medical conditions such as heavy menstrual periods, ulcers, surgery, trauma, or cancer.

## How do you know that you have anemia?

See your doctor if you're feeling very tired for unexplained reasons or if you have any of the other signs of anemia (see list above for signs and symptoms). Your doctor will do a physical exam, take a detailed medical history and blood tests, including a complete blood count (CBC). A CBC measures the levels of red blood cells, called the hematocrit (hee-MAT-oh-crit), and hemoglobin in your blood.

If the CBC confirms that you have anemia, your doctor may order more tests to find out the cause, severity, and correct treatment for your condition.

## Treatment

The goal of treatment is to increase the oxygen-carrying capacity of the blood. This is done by increasing the number of red blood cells and/or increasing the amount of hemoglobin as close to the normal level as possible. It is also important to treat the underlying cause of the anemia.

The treatment will depend on the type, cause, and severity of the anemia. Treatment may include dietary supplements, changes in diet, medicine, and/or medical procedures. In severe cases of anemia, surgery or blood transfusion may be needed.

## Prevention

Many kinds of anemia caused by iron and vitamin deficiency can be prevented. You can help avoid this type of anemia by eating a healthy and varied diet that includes foods rich in iron, folate and Vitamin B12. Other kinds of anemia can be prevented or from occurring again by treating the underlying cause, such as bleeding, or by changing a medicine that can cause anemia. Some forms of hereditary anemia, such as sickle cell, cannot be prevented. If you think you may have or be at risk for this type of anemia, it is important to discuss your personal and family history with your doctor and start treatment.

Please call your health care provider if you have any questions, concerns, or think you may have symptoms of anemia or unusual bleeding.

