



# Clinic Notes: News from the Hemophilia Clinic

St. Michael's  
Inspired Care.  
Inspiring Science.

## This edition will discuss:

- What is iron deficiency anemia
- How to optimize oral iron therapy
- Iron rich foods

## WHAT IS IRON DEFICIENCY?

Iron deficiency is the most common nutritional deficiency. Iron is present in all cells in the body and has several important functions but the major consequence of deficiency is anemia (low blood).

Iron is absorbed in the gastrointestinal tract. When iron loss (because of chronic or acute blood loss) is greater than iron intake (through food/absorption), iron deficiency begins to develop. Over time, this can lead to iron deficiency anemia.

## WHAT IS IRON DEFICIENCY ANEMIA?

Iron deficiency anemia occurs when stores of iron in the body are depleted and the body is unable to maintain adequate levels of hemoglobin in the blood.

## SYMPTOMS OF IRON DEFICIENCY

Fatigue	Dizziness	Weakness	Irritability
Pallor	Hair loss	Twitches	Restless leg syndrome
Brittle/grooved nails	Pica – uncontrollable urge to eat non – nutritious substances such as dirt, soap, ice		

## HOW IS IRON DEFICIENCY DIAGNOSED?

Blood is taken to determine the severity of iron deficiency. Some of the important tests are:

**Hemoglobin:** The iron containing-oxygen transporting protein in your red blood cells

**Ferritin:** A protein that stores iron for use when needed

**Total iron binding capacity:** The amount of iron the blood can carry

**Reticulocyte count:** Immature red blood cells

The results of your blood will be interpreted by your doctor who will work with you to determine the most appropriate treatment option.

## Treatment of iron deficiency can include:

- Increasing your iron intake through food
- Oral iron supplementation
- Intravenous iron replacement
- Blood transfusion

## IRON IN FOODS

There are two types of iron found in foods, heme and non-heme. Though heme sources of iron are absorbed more easily by your body, iron derived from non-heme sources are also very important.

### FOODS WITH HEME IRON

Liver	Beef	Chicken	Pork
Oysters	Mussels	Shrimp	Fish

### FOODS WITH NON-HEME IRON

Pumpkin seeds	Tofu	Spinach	Lentils
Enriched cereals	Eggs	Quinoa	Chickpeas
Soybeans	Nuts	Blackstrap Molasses	

*Please note: this is not a complete list of iron rich foods but just some examples.*

## ORAL IRON SUPPLEMENTATION

There are many options for oral iron therapy. Each specific preparation has differing amounts of actual iron contained in the formulation. Certain iron preparations can cause side effects, in particular nausea and constipation.

In order to minimize the likelihood of side effects and maximize the benefit, please take your iron as recommended.

## HOW TO TAKE ORAL IRON

In order to maximize the absorption of oral iron, you must pay attention to how and when you take your iron supplement. Iron needs acidity to be absorbed well.

### Take iron with an acidic drink such as:

- Orange juice
- Lemon with water

### Do not take your iron within 2 hours of:

- Milk
- Tea or coffee (black)
- Calcium pills

*The hemophilia newsletter 'Clinic Notes' was created to provide information about a variety of topics relevant to hemophilia and inherited bleeding disorders. If you have any questions, contact the nursing office at 416-864-5129.*

*The Hemophilia Team at St. Michael's Hospital*