NUTRITION NOTES

PUMPING IRON WITH PULSES!

By Debra McLennan, RD, APG Food and Nutrition Coordinator

Iron is an important mineral that we need for the production of red blood cells, plus it is an essential component of hemoglobin, which is involved in the transport of oxygen around the body. Iron is a component of myoglobin, which carries and stores oxygen in our muscles. Iron is also essential for neurological development, physical growth, cell function and production of some hormones.

Iron is naturally found in many foods as dietary iron, added to some food products and available as a dietary supplement. Dietary iron comes in two forms: heme and non-heme. Animal foods contain both heme and non-heme iron. Plant foods and iron-fortified foods contain non-heme iron only. What's the difference between these two forms of iron? That's a whole biochemistry lesson, so the short answer is that heme iron is very well absorbed by the body whereas non-heme iron isn't as well absorbed, and absorption is influenced by other dietary factors.

The amount of iron we need changes throughout life. Iron needs increase during childhood and adolescence as well as during pregnancy and breastfeeding. It's also important to note that people who eat a vegetarian/vegan diet require as much as 1.8 times more iron regardless of gender. So how much iron do we need? Recommendations vary based on age and gender, as shown in the chart to the right.

AGE (YEARS)	MALE (MG)	FEMALE (MG)
7 MONTHS TO 1 YEAR	11	11
1 TO 3	7	7
4 TO 8	10	10
9 TO 13	8	8
14 TO 18	11	15
19 TO 50	8	18
OVER 50	8	8
PREGNANCY (ALL AGES)	-	27
BREASTFEEDING		
UNDER 18	-	10
18 TO 50	-	9
VEGETARIAN		
14 TO 18	20	27
19 TO 50	14	32
OVER 50	14	14

Alberta Health Services. Iron and your health. 2019

Where do we find iron in our foods? The main sources of heme iron are meat, fish, and poultry. Non-heme iron sources include eggs and plant foods like legumes, dark green leafy vegetables, dried fruits, whole grains, and fortified grain products like cereals and pasta.

How can you tell if a food is a good source of iron? Most packaged foods will have a Nutrition Facts table and iron is one of the nutrients that must be listed on the table. Iron listed on the Nutrition Facts table includes both types of iron and is shown as a percent daily value (%DV). The %DV indicates if the serving size has a little or a lot of a particular nutrient.

PULSES (100 G COOKED)	IRON (MG)	%DV
LENTILS	3.33	23
CHICKPEAS	2.89	20
GREAT NORTHERN BEANS	2.13	15
BLACK BEANS	2.10	15
PINTO BEANS	2.09	15
FABA BEANS	1.50	10
SPLIT PEAS	1.29	9

A 5% DV or less is a little and 15% DV or more is a lot. In the case of iron, the higher the %DV, the greater the iron content in the food. Based on this information, pulses are a good source of iron! The chart on this page, based on values from the Canadian Nutrient File, lists the amount of iron in 100 grams (or about ½ cup) cooked pulses along with the %DV. Lentils and chickpeas top the list, but as you can see, all the pulses we grow in Alberta provide a source of non-heme iron that can boost the iron content of any meal.

You can enhance the absorption of iron from plant-based sources like pulses in a few ways. It can be as easy as including foods high in vitamin C with high iron foods, like our Gardener's Pie recipe on the next page which combines iron-rich lentils with vitamin C loaded potatoes, tomatoes and red pepper. Other foods that are a good source of vitamin C include cabbage, broccoli, cauliflower, kale, berries, cantaloupe, honeydew, kiwi and citrus fruits. Cooking in cast iron cookware can also increase the iron content in food! Combining animal food sources with plant food sources will also enhance the absorption of non-heme iron. Another recommendation is to drink tea and/or coffee between meals. Drinking these beverages with your meals can decrease the amount of iron your body will absorb.

This article is a general overview of iron nutrition. If you have any specific questions or concerns regarding your iron status, please consult with your doctor or registered dietitian for recommendations that are tailored to your medical history.

Do you have general questions about pulse nutrition? You can contact me at dmclennan@albertapulse.com *or* (780) 986-9398 ext. 109.

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