Prep School Performance Nutrition News with Kathleen Searles, MS, RD, LDN



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Nutritionist. Speaker. Consultant.

I hope you all fared well in the recent blizzard – I know the schools that have skiing are happy! Iron is the featured nutrient this month. Teenagers (especially girls) as a group are at risk for iron deficiency and the resulting anemia, so teachers and coaches should keep iron deficiency in mind if they see a student who is not performing up to expectations. Read on for info and tips about this important nutrient!

- Kathleen Searles, MS, RD, CSSD, LDN

Iron Deficiency Tops the List



Did you know that iron deficiency anemia is the most common nutritional deficiency in the world? Teenagers are at risk for iron deficiency because of their rapid growth spurts and sometimes poor diet quality. Rapid growth requires at least 1 mg

February 24-March2, 2013 is National Eating Disorders Week.

If your school is seeking to create awareness about this important topic, please give me a call for some ideas. I can help you with staff development and with creating policies and procedures for handling students struggling with eating and body issues. Contact Kathleen Searles, MS, RD, CSSD, LDN at 978-697-2834 or ksearles@lunchboxnutritionist.com.

5 Iron Power Foods

- 3 ounces beef 1.6-3.1
- 3 ounces chicken or turkey – 0.9-1.1 mg
- 1 cup cooked lentils –
 6.6 mg

iron/day for girls and almost 3 mg/day for boys. Three of the groups most at risk for iron deficiency are female athletes, distance runners, and vegetarian athletes - all found in the boarding school population.

The Recommended Dietary Allowance for iron for boys is 11 mg/day. Teen girls have higher needs because of blood loss with monthly menstrual periods. The RDS for teen girls is 15 mg/day. (10.5 mg/day if they have not reached menarche.)

Effects of Iron Deficiency

Iron is a component of hemoglobin, the substance in blood which carries oxygen to cells throughout the body. It is also a part of key energy producing enzyme systems. Iron deficiency leads to decreased physical work capacity and fatigue. Low iron can also cause impaired cognitive function and decreased immunity.

Factors Affecting Iron Needs

- Growth
- Presence/absence of menstrual periods
- Being a blood donor (increased needs by an estimated 0.6 mg/day over the course of 1 year)
- Diet quality, including sources of iron, meal composition, and intake of certain vitamins/minerals
- Intense physical activity (needs may be more than 30% higher due to gastrointestinal blood loss, ruptured red blood cells in the feet, and increase red blood cell turnover)

Improving Iron Intake and Absorption

Iron is absorbed best from heme iron sources – foods of animal origin that originally contained hemoglobin such as meats, poultry, or fish. Nonheme (plant derived) sources of iron are not absorbed as well. Other substances in food such as phytates, tannins, polyphenols, and calcium may decrease absorption of iron. Consuming a good source of Vitamin C (ascorbic acid) with meals improves absorption of iron.

Iron Supplements

Iron supplements are sometimes necessary, and teenage girls often benefit from a supplement. Iron supplements can be hard on the GI tract. Enteric coated or delayed release forms are better tolerated, but unfortunately are not absorbed as well. Iron supplements come in various forms such as ferrous fumarate (33% elemental iron), ferrous sulfate (20%), and ferrous gluconate (12%).

- 1 cup cooked beans (black beans, kidney beans, navy beans, etc.) – 3.6-5.2 mg
- ½ cup cooked spinach 1.9-3.2 mg

5 Quick Iron Options for Teens On the Go

- ¾ cup Iron fortified cereal 18 mg
- 1 packet iron fortified instant oatmeal – 11.0 mg
- ½ cup raisins 1.6 mg
- 1 ounce beef jerky 1.54 mg
- 1 ounce pistachios (about 50) – 1.11 mg

Symptoms of Iron Deficiency

- Feeling tired and week
- Decreased work or school performance
- Slow cognitive and social development
- Difficulty maintaining body temperature
- Increased susceptibility to infections

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If you have a student who seems run down, consider a referral to your school's health center. A simple blood test can identify iron deficiency anemia, and improved diet and supplementation should get the student back in top form!

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