



Ferritin Information

Summarized and shared by Dr. Kim Kolter and Coach Dalby.

What is Ferritin?

- Ferritin is a way to measure total body iron storage.
- Low ferritin is a precursor to low iron and will indicate a chain of events are in place that will end in low serum iron levels. When ferritin levels bottom out, total body iron stores are soon to follow.
 - If serum iron levels are low, it is way too late.
- Anemia will be the end result.

Symptoms:

- Heavy Legs/Butt
- Perceived exertion is greater than it should be for a given workout or race.
- Fatigue in races and workouts starts early on.
- Sluggish during the day.
- Hard to walk up stairs.
- Overly emotional or moody.
- Want to sleep all the time
- Low back pain may exist
- Dizziness after races more than normal

Potential Causes for Low Iron/Ferritin

- Poor nutrition
- Celiac Disease (Gluten Allergy)
- Over-training.
- Blood loss due to menstruation.
- Not enough iron rich foods being consumed.
 - Women at higher risk if vegetarian.
- GI Blood Loss
 - NSAIDS and H-Plyori
- Calcium conflict

Get Your Ferritin Checked

- Ferritin should be checked 3-4 times a year (After XC, before track, after track, before XC).
- Runners need to have a Ferritin level of 30 and preferably between 40-50.
 - Doctors sometimes hesitant and don't understand this from an endurance runner's perspective.
- If you are below 30, talk with your doctor about taking a Heme based iron supplement like Proferrin ES from Colorado BioLabs.
- If you are comfortable, report your numbers to Coach Stahl.

More on Ferritin Values

- Doctors that are competitive runners or have extensive background in running science are preferred.
 - Normed ferritin values for the population on the bottom end are not good for runners. In other words, it may say their values are within the lower limits of normal but that is not for an endurance athlete. Girls have been as low as 12 ferritin and been told they are fine and this is far from being fine for the sport.

What to do if Ferritin is low?

- Improve Nutrition
 - Cook in cast iron skillet
 - Eat red meats if possible (Heme based foods)
 - Eat veggies/grains high in iron (Non-Heme based foods)
- Supplementation (under supervision of a professional) - Iron can be toxic to the body at high levels.
 - Iron Sulfate (Non Heme Based)
 - 3-5% absorbed. Side effects like nausea, bloating, constipation.
 - Proferrin ES (Colorado BioLbs) - Heme Based
 - 25-30% absorbed, not as many side effects. Can raise 5-6 points/week

Other Helpful Pointers

- Avoid Calcium (dairy) consumption within 2 hours of eating iron rich foods or supplementation. Multi-vitamins contain calcium sometimes.
- Combine iron rich foods with foods that contain Vitamin C. Vitamin C acts as a catalyst in absorbing iron.
- Avoid NSAIDS (Ibuprofen and Naproxen)
 - Dr. Kim Kolter recommends Tylenol (acetaminophen) if needed as a substitute.
- Avoid Caffeine products.
- Get your Ferritin tested!

High Iron Foods (Heme Based)

- 3.5 mg or more per serving
 - 3 oz Beef or chicken liver
 - 3 oz Mollusks, mussels, clams, and oysters.
- 2.1 mg or more per serving
 - 3 oz Cooked beef
 - 3 oz Cooked turkey
- 0.7 mg or more
 - 3oz Chicken
 - 3 oz Halibut, haddock, perch, salmon, or tuna
 - 3 oz Ham or veal

High Iron Foods (non Heme Based)

- 3.5 mg or more per serving
 - Breakfast cereals enriched with iron
 - One cup of cooked beans
 - ½ cup of tofu
 - 1 oz pumpkin, sesame, or squash
- 2.1 mg or more per serving
 - ½ cup lima beans, kidney beans, chickpeas
 - 1 cup dried apricots
 - Medium baked potato
 - Medium stalk of broccoli

High Iron Foods (non Heme Based) - Continued

- 0.7 mg or more
 - 1 oz peanuts, pecans, walnuts, pistachios, roasted almonds, roasted cashews, or sunflower seeds
 - ½ cup dried seedless raisins, peaches, or prunes
 - 1 cup spinach
 - Medium green pepper
 - 1 cup of pasta

LSW and Pleasant Hill Numbers

- Based on symptoms I have requested 6 athletes receive Ferritin tests. 4/6 came back with Ferritin below 30. One as low as 4.
- LSW tested over 40 girls multiple times in the last two years.
 - 70% have been below 30 on at least one test
 - 40% of the girls have tested below 20 on at least one test.