

Iron Screening Protocol

The OSU Athletic Department supports the following:

1. Iron deficiency/anemia is likely to have a negative impact on performance and health.
2. These issues are of greater risk for female athletes, endurance athletes, wrestlers (in lower weight classes or those that cut often) and younger athletes.
3. Iron deficiency/anemia is in most cases a result of insufficient intake of dietary sources of iron over a prolonged period of time and/or increased in or regular losses of iron (via menses, sweat, injury, malabsorption)
4. Excess iron intake is a legitimate concern for male athletes and any athlete who chronically take large doses of supplemental iron. Hemochromatosis is a possibility in our athlete population, especially in younger white males.
5. Diagnosis of iron deficiency must always include a dietary consult and the goal of moving athletes to a non-supplemental approach to preventing reoccurrence of deficiency.
6. All athletes need to be educated regarding inadequate as well as excessive intakes of dietary iron routinely
7. All incoming female athletes, wrestlers and vegetarian athletes should be encouraged to have an iron status assessment performed prior to coming to OSU each fall. This provides time to address deficiency prior to starting heavy late summer and fall training programs.
8. Coaches should not diagnosis iron deficiency, recommend levels of supplementation or provide dietary iron supplements to their athletes.
9. Athletes suspected of being iron deficient should, as a first step, seek evaluation by their Team Physician, ATC or the departmental Sports Dietitian.
10. Athletes are responsible for the costs for iron status testing that is done outside of the recommendations of the Medical Team.
11. Athletes need to obtain from a medical staff member, a written prescription and directions for obtaining an iron status assessment.
12. Coaches requesting additional iron status assessments beyond the departmental protocol must pay for these from their own sport budgets. It is HIGHLY discouraged for coaches to advise an athlete has any medical testing without first discussing this with the appropriate Performance Enhancement Team member.
13. All results from medical testing of any kind will be received and reviewed first by the Team Physician.
14. In MOST cases fatigue is not due to iron deficiency. In MOST cases it is directly related to under-consuming calories, not eating enough of your caloric needs during the day and or lack of appropriate amounts of sleep.

Protocol:

Athletes should not have their blood tested for iron within four days of treatments that use radioactive materials. Recent high stress levels or sleep deprivation are additional reasons for postponing iron tests.

Blood samples for iron tests should be taken early in the morning because serum iron levels vary during the day. This precaution is especially important in evaluating the results of iron replacement therapy.

All athletes will be tested at physicals/clearance exams for HgB unless All females and the wrestlers will additionally have their Ferritin levels assessed.

Athletes diagnosed as iron deficient (low HgB, Ferritin <20 ng/dl) or Anemic will be provided with supplemental iron by the sports nutritionist. Athletes with Ferritin levels of 20-30 ng/dl are recommended to take a prenatal multivitamin. Athletes with normal iron status are encouraged to purchase a multivitamin for women or men respectively to be taken ~3-5 times per week if desired.

Males:

- | | | |
|----|-----------------|--|
| 1. | Normal | 13-18 g/dl |
| 2. | Low HgB | No intervention, suggest routine meeting with RD
<13 g/dl
Referred for Ferritin & Referred to Team Physician |
| 3. | High Ferritin | Referred for Hemochromatosis
>300 |
| 4. | Normal Ferritin | 18-370 ng/ml
Work with RD |
| 5. | Low Ferritin | <18 ng/dl (?)
Supplemental iron?
3 month FU with supplement compliance |
| 6. | Low on recheck | Continue and review counsel with RD
Non-compliance noted in chart |

Females:

- | | | |
|----|-------------------------|---|
| 1. | Normal HgB & Ferritin | Hgb>11.5, Ferritin > 30
Handout on Dietary iron
Discourage supplementation |
| 2. | Low HgB normal Ferritin | Dietary consult, iron recheck 3-6 months
& Referred to Team Physician |
| 3. | Ferritin 20-30 ng/dl | Pre-natal, dietary consult, 3 month re-check
if compliant with supplementation |
| 4. | Ferritin 10-20 ng/dl | 325 1/day, dietary consult, 3 month re-check if
Compliant with supplementation |
| 5. | Ferritin <10 ng/dl | 325 2/day, dietary consult, 3 month re-check
If compliant with supplementation |
| 6. | High Ferritin > 125 | Evaluation for dysfunctional eating, vegetarians.
Assess if taking iron, counsel on DC |

