### Why Ferritin is Crucial for Distance Runners

Ferritin is a protein that stores iron, a vital component for transporting oxygen to muscles during long runs. Low Ferritin levels can lead to fatigue, diminished endurance, and heightened perceived effort during your distance training and races. Managing your Ferritin levels is crucial to maintaining your edge.

#### If your athlete is experiencing excessive effort and fatigue during practice and races and not racing any better, it's essential to address the issue to ensure their well-being and performance. Here are steps you can take to help your athlete in this situation:

- 1. Get their Ferritin tested ASAP, either make an appointment with their doctor or follow this link and you will have the results usually within 24 hours of testing <u>https://buchananxc.com/ferritin.html</u>
- 2. What's a low Ferritin? Any tested level below 20. Ideally we would like to see values above 50.
- 3. Encourage them to reassess their dietary choices and consider including some of the foods listed below in their daily meals.
- 4. Advise them to initiate a conversation with their coaches about their ferritin levels and the steps they are taking to address the issue.
- 5. Be aware that you should begin to observe improvement in levels within 8-12 weeks, and it's advisable to undergo another Ferritin test at that point.

# I've had my child undergo a Ferritin test, and their levels are below 50. What steps should I take next?

- 1. If your child's levels fall within the range of 35 to 50, maintain vigilance by monitoring their performance and perceived effort, and ensure they undergo regular Ferritin tests every 8 10 weeks.
- 2. If your child's Ferritin levels are below 35, consider making dietary adjustments or introducing supplementation (discussed below) before considering a consultation with Dr. Kulkarni.
- 3. If your child's Ferritin levels are around 10 or lower, consider scheduling an appointment with Dr. Badrinath Kulkarni, who is readily available to address this issue. Here is his contact information. https://www.communityhealthpartners.org/badrinath-kulkarni-md/

# In what ways will the coaches support and assist my athlete?

- 1. We will communicate to them that having Ferritin levels below 25 doesn't necessarily impact their performance, except for an increase in perceived effort. Typically, this may not affect 800 and 1600 races, but it can add stress during 3200 and cross country events, making the experience less enjoyable. As their Ferritin levels gradually rise, their perceived effort will return to normal, reducing their stress levels. However, if their Ferritin levels drop below 10, it's crucial to closely monitor their training and racing until their levels begin to normalize.
- 2. Considering our approach of continuous training and competition throughout the year, aiming for that one final event where they can perform at their peak, having their Ferritin levels return to normal sooner will reduce the stress they encounter while striving for success in that ultimate race.
- 3. This holds significant importance for your athlete because they have dedicated countless hours to excel, persevered through challenging workouts to secure success in their races, made sacrifices by prioritizing a consistent routine over other activities, and maintained a diet focused on nutritious foods. All of this effort is geared towards that one crucial race day. For most of our runners, this pinnacle moment is often the league meet in Cross Country and Track. However, if your athlete happens to be one of the top 7 runners in cross country, that race could potentially lead to the Section Championship, State Championship, or even the National Championship. If the situation concerning their Ferritin levels remains unaddressed, it unfortunately has the potential to prematurely end their season.

## Primary methods to boost Ferritin levels without relying on supplements

- While oysters and liver offer the highest iron content, they can be challenging to incorporate into one's diet. Clams, sardines, and beef come next in iron-rich foods, followed by chicken, turkey, and eggs, which are also beneficial though with slightly lower absorption rates.
- Legumes such as white beans and black lentils are excellent sources of iron, followed by kidney beans, black beans, and chickpeas.

- In the nuts and seeds category, pumpkin seeds are at the top in terms of iron content, followed by cashews, peanuts, almonds, and pistachios.
- Iron-rich vegetables include swiss chard, tomatoes, and white potatoes as top choices, followed by broccoli, kale, and green beans. Spinach contains ample iron but is hindered by oxalic acid, which can impede iron absorption.
- Among grains, amaranth is the highest in iron, although it may not be widely consumed. Quinoa offers about half the iron content per serving, with rolled oats, brown rice, regular rice, and wheat following.
- Fruits rich in iron include raisins as the top choice, along with prune juice, dried apricots, and dried figs.
- Surprisingly, dark chocolate with a cocoa content of 70% or above can contribute to your iron intake.
- Utilizing old cast iron skillets for cooking can unexpectedly introduce more iron into your diet.

Remember not to consume calcium-rich foods alongside iron-rich meals if you are actively trying to increase your Ferritin levels, as calcium can interfere with iron absorption. This may involve avoiding dairy products during such meals.

### If I need to take iron supplements:

- Optimal absorption occurs when taking iron supplements on an empty stomach, either about one hour before or two hours after meals. You can ingest them with water, fruit juice, or a beverage rich in vitamin C, such as orange juice, which can enhance iron absorption.
- After engaging in a strenuous workout, it's advisable to take iron supplements within 30-60 minutes, deviating from your usual routine time. This timing can maximize the benefits of the supplement.
- Research suggests that an alternative approach involving iron supplementation every other day may yield more favorable results.
- Ferrous sulfate is often considered the most suitable choice for iron supplementation. To explore available options, you can search for "Ferrous Sulfate" on Amazon, where both pill and liquid forms will be readily visible for review.
- Most research suggest starting with 60-100 mg of elemental iron, either in tablet or liquid form to start building up your ferritin storage.