Inside your body, iron has an important gig: it helps to produce hemoglobin, a protein needed for carrying oxygen to all of your vital cells, helping to reduce fatigue and improve energy levels. Now, researchers from Cornell University are saying that iron has another benefit, especially when it comes to women who get moving.

When they studied female rowers, the researchers discovered that athletes with low (but not yet anemic) iron levels faced a competitive disadvantage, performing 21 seconds slower, on average, than those with normal iron levels during a stimulated two kilometer race. In other words women with healthy iron scores performed better.

The researchers recommended that female endurance athletes get screened for low iron levels, as well as iron deficiency anemia (a condition in which super low iron levels result in a shortage of healthy red blood cells) before heavy training periods.