

Iron deficiency can be a problem for athletes

By Amanda MacMillan, *Outside*

Endurance athletes are at risk of an iron deficiency. And if you are iron-deficient, a supplement may indeed improve your performance and health. But if your iron levels are normal, or close to normal, taking a pill every day won't affect much besides your wallet.

Michael Zourdos, assistant professor of exercise science at Florida Atlantic University's Muscle Physiology Lab and lead author of a new study on this topic, says he's skeptical of supplements. "But iron deficiency is one of the most common micronutrient deficiencies worldwide," he says, "and we know that endurance athletes—and runners specifically—are likely candidates for it."

That's because the act of running—that repetitive pounding for miles at a time—causes muscle damage and hemolysis, or the destruction of red blood cells. That's perfectly normal, and necessary to build new muscle. But in extreme cases, like when someone is training for a marathon or an ultra, it can trigger iron loss because most of the body's iron is stored in red blood cell proteins, called hemoglobin, that are being destroyed.

And runners often don't get enough iron in their diets, despite the fact that their total caloric intake tends to be higher than the average person's. "Because they're so focused on carbs, they eat less total protein and less high-quality protein," says Zourdos, "which for most people is their main source of iron."

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