



# What Is the Impact of Iron Deficiency on MPN Patients?

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**Andrew Schorr:**

Philip said, "Is iron deficiency a new normal if you have PV and you'll, therefore, have weakness, fatigue, maybe even some cognitive issues because of anemia as well?"

**Dr. Scandura:**

Yeah, so I sort of fall in the camp, as I mentioned before, there's some debate in the field, and I sort of fall in the camp that if you're getting symptoms from iron deficiency, it might suggest that something other than phlebotomy could be beneficial or could relieve that symptom. Everybody, if you take enough blood out of them, is going to become iron deficient and, in fact, most people diagnosed with polycythemia vera, if tested, actually meet the criteria for iron deficiency, not because they actually don't have enough iron in their body, but because all of the available iron is soaked up in making red blood cells. Red blood cells are red because of iron.

So, if you think about all of the iron in your body and all of the places it's used for metabolism and everything else, there are a lot of enzymes that actually use iron as part of their catalytic site. A large proportion of all of the iron in our body goes to making red blood cells. In polycythemia vera, that regulation is completely abnormal and you end up just making a lot of red blood cells that aren't needed and it soaks up all the iron. Then when you start doing phlebotomy, you're taking all of that extra iron and you're taking it out, but the bone marrow still wants to try to make red blood cells. So, it continues to scavenge as much of the iron as it can.

So, iron deficiency is pretty common and if you need a lot of phlebotomies it's universal. Some patients, in my experience, meet all the criteria for severe iron deficiency have very little in the way of symptoms. Others meet criteria for mild iron deficiency, but they're quite symptomatic. And so, in those instances, you need to individualize a little bit. At least give a try to a different therapy and allow the iron stores to normalize and see if that improves the symptoms.

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