

## Ironing Out the Wrinkles: New Research Regarding Screening for Iron Deficiency Anemia

by Catherine Spaulding MD, Immediate-Past SOPT Monthly Feature Editor, Pediatrics



In a recently released article in *Pediatrics*([10.1542/peds.2018-2095](#)), Oatley et al raise significant questions about the utility and accuracy of screening for iron deficiency anemia in young children. Though the American Academy of Pediatrics (AAP) currently recommends routine screening at 12 months of age with a CBC or a hemoglobin level, this recommendation is not without controversy. Prior studies have shown that hemoglobin is neither highly sensitive nor specific for iron deficiency, with a low positive predictive value that is less than 30% in young children (White K. *Pediatrics* 2005). The age at which to check for iron deficiency is also not well established. Thus it comes as no surprise that in contrast to the AAP, the US Preventive Services Task Force has independently concluded there is insufficient evidence to recommend screening in this population.

Oatley et al has shed new light on this debate. Though their research showed that the prevalence of anemia was highest in children between 12 to 13 months of age (as defined by a hemoglobin less than 11 g/dL), their work also found that the prevalence of low ferritin levels was lowest during this time. Further, they found that between 12 to 24 months of age, the prevalence of anemia decreased while the prevalence of low ferritin levels continued to rise. This observation suggests that ferritin and hemoglobin do not correlate well at this time in life, nor does low hemoglobin seem to accurately predict iron storage within the first 2 years of life.

Are we screening children with the wrong test, at the wrong time or both? Oatley et al's study suggests that perhaps our definition of anemia, our current threshold for treatment, and our methodology for screening may need to be reconsidered. Of course, more research is necessary before we may implement any changes in daily practice. In the meantime, Dr. Cohen offers some additional thoughts on the topic in his recently published commentary which can be useful to reference when discussing iron deficiency anemia screening with families ([10.1542/peds.2018-3068](#)).

### References

1. White, K. C. "Anemia Is a Poor Predictor of Iron Deficiency Among Toddlers in the United States: For Heme the Bell Tolls." *Pediatrics*, vol. 115, no. 2, 2005, pp. 315-320., doi:10.1542/peds.2004-1488.

- [A Toddler With Treatment-Resistant Iron Deficiency Anemia](#)
- [Prenatal Iron Deficiency, Neonatal Ferritin, and Infant Cognitive Function](#)

# AAP Journals & Periodicals

- [Iron-Refractory Iron Deficiency Anemia May Not Lead to Neurocognitive Dysfunction: A Case Report](#)
- [Facebook](#)
- [Instagram](#)