

LOW HEMOGLOBIN/HEMATOCRIT

(201)

PARTICIPANT TYPE.....	ALL
HIGH RISK.....	NO

RISK DESCRIPTION:

Low hemoglobin or hematocrit concentration based on CDC Guidelines. Refer to the Normal Value link in WICnet on the Health/Nutrition tab, Blood subtab or in the Clinic Services Manual policy 04-02-05 (Certification/Bloodwork) for current CDC guidelines.

ASK ABOUT:

- All Participant Categories:
 - Medical conditions including lead poisoning, recent illnesses or infections
 - Medications or supplements that may interfere with iron absorption
 - Appetite
 - Pica
 - Food intake patterns such as food groups typically consumed, coffee and tea
 - Growth pattern or pregnancy weight gain pattern
 - Family, religious or cultural practices that may contribute such as vegetarianism
 - Oral health status and ability to chew without significant pain
 - Food security status of the household
 - Primary care provider's recommendations
- Pregnant Women:
 - Common problems of pregnancy that affect diet (nausea, vomiting, heartburn)
 - Use of iron or prenatal multivitamins and issues with tolerance
- Breastfeeding and Delivered Women:
 - Prolonged or excessive menstrual bleeding
 - Blood loss with delivery
- Infants:
 - If breastfed, determine if another source of iron was introduced by 6 months
 - If not breastfed, determine the iron content of the primary milk feeding
 - Birth history including prematurity and any related medical complications
- Children:
 - Status of weaning from the bottle
 - Typical intake of milk and other beverages
 - Developmental feeding skills and acceptance of different textures of food

NUTRITION COUNSELING/EDUCATION TOPICS:

- All Participants:
 - Iron deficiency is the most common cause of anemia in children and women of child-bearing age. It may be caused by a diet low in iron, insufficient absorption of iron from the diet (malabsorption, gastric surgery or overuse of medications such as antacids), inhibitory substances in foods (tannins in coffee and tea), increased needs (due to growth, prematurity, and pregnancy); or blood loss (gastrointestinal losses, childbirth, surgery and other trauma).
 - Anemia impairs energy metabolism, temperature regulation, and immune function.
 - If an iron supplement has been prescribed, discuss the importance of taking it on a consistent basis and strategies for remembering to take it. Confirm the dosage and how to measure it.
 - If the iron supplement is causing gastrointestinal problems related to tolerance, suggest taking it before bedtime.
 - Identify iron-rich foods that the participant likes and is willing to eat.
 - Recommend consuming foods rich in vitamin C at the same time as iron-rich foods to maximize iron absorption.
 - Avoid coffee and tea during meals. The tannins in tea and coffee, (also found in decaffeinated products) limit iron absorption from foods consumed at the meal.
 - Cook acidic foods such as tomato sauce in cast-iron cookware.
- Pregnant Women:
 - Anemia in pregnancy may increase the risk of prematurity, poor maternal weight gain, low birth weight, and infant mortality.
 - Discuss strategies for relieving common problems of pregnancy to improve her appetite and increase her ability to eat an adequate amount of a variety of foods.
 - If pica is a factor, explore options for decreasing or eliminating the non-food items from her diet.
- Breastfeeding and Delivered Women:
 - Discuss of the importance of a healthy diet so that she feels good and can care for her newborn.
 - Identify iron-rich foods that can be prepared quickly for meals and snacks.
- Infants and Children:
 - Anemia can delay mental and motor development. The risk of delayed development increases with the duration and severity of anemia. Early damage is unlikely to be reversed with treatment.
 - Review age-appropriate feeding guidelines for an iron-rich diet including:
 - Appropriate primary milk feedings for infants are breastmilk and iron-fortified formula.

NUTRITION COUNSELING/EDUCATION TOPICS (CON'T):

- Recommended sources for additional iron after 6 months of age (daily oral supplement, infant cereal, pureed meats).
- Limit juice to 4-6 ounces a day. Too much juice can decrease intake of other foods, including high-iron foods.
- Wean from the bottle no later than 14 months of age. Toddlers who consume large amounts of milk and other beverages from the bottle may not have an appetite for solid foods.
- Limit milk intake to 16 ounces per day. If a child fills up on too much milk (e.g., routinely drinks 24 ounces or more per day), intake of iron-rich foods can suffer.
- Avoid coffee and tea.
- Store iron supplements out of reach. Just one large dose of iron (60 mg) can be toxic to a child. Encourage parents to present the supplement as medicine rather than as candy or a treat.

POSSIBLE REFERRALS:

- Follow your local agency protocols for referrals to physicians and rechecks at the WIC clinic.
- If the iron supplement appears to be causing serious gastrointestinal problems, recommend talking to their primary care provider about dividing the dose or taking another form of iron that is better tolerated.
- If access to sufficient food is a concern, refer to other food assistance programs such as SNAP, local food pantry, etc.
- If the parent/child relationship is so disordered that it affects the parent's ability to make feeding decisions and meet the child's basic needs, refer to a social services agency for help from a mental health specialist.
- If the participant had an elevated blood lead level in the past year and has not had interim follow-up blood lead level screening, refer to health care provider or local public health department to ensure adequate follow-up services.
- If oral health status is affecting the participant's ability to consume an adequate diet, refer to a local dental office, the local public health department (public health hygienists) or Health Tracks (if on medical assistance) for additional screening and referral. More information about oral health services in ND can be found at <http://www.ndhealth.gov/oralhealth/>.