

PARTICIPANT TYPE	ALL
HIGH RISK	YES

RISK DESCRIPTION:

Conditions which affect energy requirements, ability to feed self, or alter nutritional status metabolically, mechanically, or both. These conditions include, but are not limited to:

- Epilepsy
- Cerebral palsy (CP)
- Neural tube defects (NTDs) such as spina bifida and microcephaly
- Parkinson’s disease
- Multiple sclerosis (MS)

Presence of a central nervous system disorder diagnosed by a physician as self-reported by applicant, participant, or caregiver; or as reported or documented by a physician, or someone working under physician’s orders

ASK ABOUT:

- Attitude and knowledge about condition and treatment plans including diet and medications
- Barriers to following treatment plan (e.g., health beliefs, religious or cultural practices, finances, access to follow-up health care)
- Weight history and weight goal
- Appetite
- Food-medication interactions
- Dietary supplements including vitamins, minerals, herbal products and targeted nutrition therapy products
- Developmental feeding skills and ability to self-feed

NUTRITION COUNSELING/EDUCATION TOPICS:

- All Participants:
 - Identify WIC foods that are consistent with the treatment plan and the participant’s developmental feeding skills.
 - Determine and discuss an eating pattern appropriate for the participant’s weight goal (i.e., maintain, gain or lose weight) and developmental feeding skills.

NUTRITION COUNSELING/EDUCATION TOPICS (CON'T):

- All Participants (con't):
 - Provide counseling messages that support any medical nutrition therapy initiated by a clinical dietitian.
 - Review and provide WIC-approved medical foods or formulas as prescribed by the primary care provider.
- Epilepsy:
 - These individuals are at nutritional risk due to alterations in nutritional status from prolonged anti-convulsion therapy, inadequate growth and physical injuries from seizures.
 - The ketogenic diet has been used for the treatment of refractory epilepsy (difficult to control) in children. This high fat, adequate protein, low carbohydrate diet forces the body to burn fat rather than carbohydrate and the liver converts fat into fatty acids and ketone bodies. When the body produces ketone bodies, this has an anticonvulsant effect. However, children on this diet for six months or more have been observed to have slower gain in weight and height. Monitor growth and increase calorie and protein intakes while maintaining ketogenic status.
 - Most of the anti-epileptic drugs have been associated with the risk of neural tube defects in the developing fetus. Folic acid is recommended for women with epilepsy as is it for other women of childbearing age.
- Cerebral Palsy:
 - Oral motor dysfunction is associated with this diagnosis in infants and children.
 - Children often have poor growth due to eating impairment such as difficulty in spoon feeding, biting, chewing, sucking, drinking from a cup and swallowing. Rejection of solid foods, choking, coughing, and spillage during eating are common. Some children may require tube feeding.
 - Monitor growth and increase calorie and nutrient density as needed.
 - Recommend modifications in food consistency as needed.
- Neural Tube Defects (NTDs):
 - Limited mobility or paralysis, hydrocephalus, limited feeding skills and genitourinary problems put children with NTDs at increases risk of abnormal growth and development.
 - Ambulatory disability, atrophy of the lower extremities, and short stature place some NTD-affected children at high risk for increased body mass index.
 - Monitor growth and adjust caloric density of the participants eating pattern as needed.
- Parkinson's Disease:
 - In some cases, participants with this disease require protein redistribution diets to increase the efficacy of the medication used to treat the disease.

NUTRITION COUNSELING/EDUCATION TOPICS (CON'T):

- Parkinson's Disease (con't):
 - Participants treated with levodopa-carbidopa may also need to increase their intake of B vitamins.
 - Encourage participant to meet the minimum protein requirements.
 - Monitor weight status and pregnancy weight gain. Individuals with Parkinson's disease often experience unintended weight loss.
- Multiple Sclerosis (MS):
 - Individuals with MS may experience difficulties with chewing and swallowing that require changes in food texture in order to consume a nutritionally adequate diet.
 - Obesity and malnutrition are frequent nutrition problems. Immobility and the use of steroids and anti-depressants are contributing factors to obesity. Dysphagia, adynamia (lack of strength or vigor), and drug therapy potentially contribute to malnutrition.
 - Adequate intakes of polyunsaturated fatty acids, vitamin D, vitamin B12 and a diet low in animal fat have been suggested to have beneficial effects in relapsing-remitting MS.
 - Breastfeeding advice to mothers with MS has been controversial. However, there is no evidence to indicate that breastfeeding has any deleterious effect on women with MS. Breastfeeding should be encouraged for the health benefits to the infant and mothers should receive the necessary support to enhance breastfeeding duration.

POSSIBLE REFERRALS:

- If the participant has significant feeding difficulties, refer to a feeding clinic.
- If the participant requires in-depth nutritional intervention beyond the scope of WIC services, refer to primary care provider or a dietitian with expertise in this area.
- If the participant is taking any non-prescribed vitamin or mineral supplements, herbal supplements, or targeted nutrition therapy products, advise discussing these with the primary care provider.
- If the participant does not have an ongoing source of health care, refer to primary care providers in the community or the local public health department.
- If the participant is an infant or child with neural tube defects or cerebral palsy, refer to the Children's Special Health Services program (<http://www.ndhealth.gov/cshs/>).
- Refer infants and children to the Right Track Program for early intervention services (<http://www.nd.gov/dhs/services/disabilities/earlyintervention/parent-info/right-track.html>).