Nutritional Needs of the Patient with Myasthenia Gravis

Proper nutritional intake on a daily basis is a vital component for the health and well-being of all people. It is equally important for persons suffering from Myasthenia Gravis. However, the intake of a proper diet may prove difficult for those individuals who are experiencing chewing and swallowing difficulties or for those whose medications necessitate dietary restrictions. Three meals a day are the first requirements for a balanced diet. Each meal should include not only the food one likes or enjoys but also the essential nutrients selected from the four (4) basic food groups. Let's review the components of these food groups. They include:

- Bread and cereals which supply the body with carbohydrates in the form of sugars and starches as a source of energy.
- Fruits and vegetables are also carbohydrate energy sources that provide the body with necessary vitamins and minerals.
- Fish, poultry, meat, and eggs provide the body with the protein necessary for healthy tissue and healing.
- Milk and dairy products supply the body with calcium, vitamins, and minerals necessary for the maintenance of normal bone structure.

There are certain dietary problems, which might be encountered by the individual with MG. One such problem might be chewing and swallowing which are frequently difficult for the person with MG. A closer look at how one performs these actions explains why.

Chewing is a repetitive action of the jaw moving up and down. When solid food is taken into the mouth, several muscles are put into action. Muscles in the lower jaw and the tongue move food inside the mouth, allowing the teeth to break up the food into the smaller parts for easier swallowing. Once food is chewed to a consistency for swallowing the muscles of the face and cheeks bring the teeth to a closed position. The tongue presses upward against the roof of the mouth to push the food back into the throat for passage into the esophagus and down into the stomach.

A structure called the epiglottis is found at the entrance of the throat above the esophagus and windpipe or trachea. When the swallowing action begins, the epiglottis acts like a lid to prevent food and liquids from entering the lungs. If the epiglottis fails to completely cover the windpipe because of weakened muscle action, liquids or foods may enter into the trachea and cause coughing.

The following steps can be taken to prevent or reduce the number of difficulties which might be encountered by those with MG:

1. **When the person with MG has difficulty eating, several things might occur.** Because the repetitive action of chewing can have a weakening effect on the jaw muscles for a person with MG, the person the chewing process might become less effective. Weakness of neck muscles might make it difficult to push food to the back of the throat and down into the stomach.

2. **Always sit upright** while eating or drinking to reduce the chance of choking. If coughing occurs, lean forward. Close your mouth and take small amounts of air through your nose. A strong forceful cough will help push the irritating substance out of the throat. Try to remain calm.

3. **Plan meals at times when muscles strength is at its best.** Some patient's feel stronger an hour after medication is taken. A half hour rest before meals is also a good idea. Following these suggestions may make it easier to chew and swallow food. It may be wise to eat the main meal in the morning if muscle strength is best that time.

4. **Take small portions into the mouth and rest frequently.** Small portions require less movement of the jaw. Resting for a few seconds in between bites prevents the fatigue that is frequently seen with repetitive muscle action. Remember that the texture and consistency of food can either help or interfere with the chewing and swallowing process. Preparing foods to a softer consistency will be less strenuous on the muscles of the jaw.

5. **Drinking small amounts of liquids with solid food will also soften food consistency.**

6. **Have a dental exam regularly.** Follow a program of good dental hygiene with includes brushing and flossing after meals and snacks. Good dental hygiene assures that your work of chewing. Teeth and gums that are not healthy only and more problems to those already encountered by weakened jaw muscles.
Medications taken by people with myasthenia gravis can have side effects that necessitate dietary modification as ordered by the doctor. One side effect that might be encountered is diarrhea caused by anticholinesterase drugs such as Mestinon or Neostigmine.

If occasionally diarrhea occurs, drink extra liquids to replace the fluid lost. This is addition to the daily requirements of eight (8) glasses of liquid per day.

A liquid diet consisting of broth, Jell-O and clear juices, such as apple juice, can be taken for one of the daily meals to allow the bowel to rest. The next meal can be solid food, but should be bland. Foods that can be taken are plain baked or broiled meats; soft cooked eggs, rice, cooked fresh vegetables and cooked fruits. These bland foods are low in fiber content and will also allow the bowels to rest. Do not include salads, spice or fried foods, casseroles or fresh fruits since these can aggravate diarrhea. Always check with the doctor before taking any over-the-counter medications that control diarrhea. Lastly, if diarrhea is a persistent problem, notify the doctor.

Fluid retention is another side effect encountered by the MG patient. High doses of steroids such as ACTH or prednisone may cause the body to retain water. Steroids cause retention of salt or sodium which in turn retains water. To help decrease the amount of water retained, salt intake can be reduced by:

Don't add salt to foods when cooking or at the table. Removing the saltshaker from the table is a good idea.

Avoid certain foods such as commercially prepared soups, smoked of prepared meats such as bacon, sausage, lunchmeat, ham and other pork products.

Read labels on foods bought in the grocery store for sodium content. If sodium or salt appears as one of the first three ingredients listed on the label, avoid the product.

Avoid snacks such as potato chips and pretzels that are also very high in salt content. If these types of snacks are preferred, there are products made without salt added.

Select fresh vegetables instead of canned. Fresh cooked vegetables provide more nutrients such as vitamins and minerals, but do not have the salt that is added during the canning process. Frozen vegetables may be used if salt is not added during the freezing process. Read the label to be sure. Avoid all frozen vegetables that are packaged in any sauce or glaze.

Other effects of steroid medication can be lowered levels of potassium, fluctuations of appetite, and weight gain.

Potassium is important for many of the body’s normal activities. These include muscle contraction and nerve transmission of the heart, stomach and intestines and muscles of the arms and legs. Potassium also helps maintain fluid balance in the body’s cells. Potassium levels may be periodically checked by means of a blood test. Maintenance of proper potassium levels can be assisted by including foods such as orange juice, bananas, yellow and green vegetables, whole grain cereals, meat poultry, and fish in the diet plan.

Fluctuations of appetite and weight gain caused by steroid medication may be difficult to control. Careful diet planning can help. Once again, balanced meals that include the basic four (4) good groups are very important. Low-calorie in between meal snacks such as fresh vegetables and fruits can be included in the diet plan. Caution should be exercised regarding fad diets that are not nutritionally balanced. The doctor treating a person with MG should be consulted before starting and weight deduction plan. The doctor should also be consulted regarding the use of any nutritional supplement such as vitamins or mineral.

Eating out: there is no reason for the person with MG to avoid travel or social affairs. The key is to plan ahead. Many restaurants, hotels and airlines are very cooperative about preparing special food if needed, as long as advance notice is given. And, keep in mind that the host or hostess at most parties and social affairs will go out of the way to make an invited guest feel comfortable and welcome, particularly if given advance notice about any special occasion.

Drinking alcoholic beverages in moderation, one or two drinks are acceptable for some people with myasthenia gravis. However, others might not be able to tolerate any alcohol if weakness is severe. Check with the doctor to determine if drinking alcohol is advisable.

By practicing the simple measures of planning ahead, taking time while eating, and applying the basic principles of good nutrition, the person with MG can live a more fulfilling and healthy life. There is no reason why most people with MG cannot continue to enjoy the good things in life, with family and friends, at home or away.

Reviewed for publication by the Medical Advisory Board of the Myasthenia Gravis Association of Western Pennsylvania. 2009