

# Maternal Nutrition in Multiple Pregnancy

## **No subsequent treatment after a baby is born can make up for lack of a healthy prenatal environment!**

In a high risk pregnancy, it is the one thing that is in your total control. Good nutrition is the most vital, proactive step you can take toward a good outcome in your pregnancy. My research the last two years has been directed toward reducing preterm labor and increasing birth weight of multiples. It has become increasingly clear that maternal nutrition and optimal weight gain are key factors for good outcome in pregnancy. As stated in a well known obstetrical medical journal, "poor nutrition is an often underrecognized and underestimated factor in many high risk obstetrical complications." "Multiple gestation is a major nutritional stress."<sup>1</sup>

Some of the key nutrients that need to be included in a multiples pregnancy diet are adequate amounts of protein, calories, calcium and iron. These will be reviewed in detail. It is important that you understand the role these foods play in building stronger, healthier babies, so you will be more mindful of them in your daily nutrition. Perhaps the most important ingredient to be included in nutrition is protein. Proteins are complex chemicals which have two important functions. First, they serve as the building materials of body tissue.<sup>2</sup> From your hair to your toenails, most of your body - your blood, bones, muscles and other tissues - are made up primarily of protein. The second function of proteins is to act as enzymes which regulate chemical reactions that keep a body growing and functioning.<sup>2</sup> Proteins play an important role in manufacturing enough blood volume and provide the pathway of properly nourishing your babies. When you understand the role protein plays it is little wonder why they are so important. Excellent sources of protein are lean meats, poultry, fish, nuts, whole grains, eggs, cheese, and milk. Milk and cottage cheese are some of the best sources of protein as well as being inexpensive and milk provides the necessary hydration as well. You may substitute skim milk for some of your 8-10 (10-12 oz.) glasses of fluid you need daily, especially if your not meeting your protein requirements. The recommended amount of protein for twin pregnancy is at least 110 grams daily. For triplets, 140-150 grams daily.<sup>4</sup> This is a must!

By the end of a twin pregnancy your blood volume will have increased by 70-80% of your pre pregnant status.<sup>3</sup> Even more in a triplet pregnancy. This is a considerable amount that you need to acquire partly by hydration (drinking enough fluids) and adequate protein intake. Without enough calories in your diet, approximately 3,000 for twins, you won't have the energy for baby building and carrying on much of your activities of daily living. Calories should be adjusted down slightly for a high maternal pregravid weight. Many women who work outside the home while pregnant with multiples find they are exhausted by the afternoon toward the end of their pregnancy . It is only when they work part-time or not at all and are resting more at home do they find they have much more energy throughout the day.

Calcium is very important in the last half of pregnancy, (during the last two trimesters). The last trimester is when half the calcium required by the fetus will be deposited in the fetal bones. If you are not taking in enough calcium then the babies will take it from your bones, this is not beneficial to you after menopause. The required amount is 1,600-2,000 mg. per day for a twin/triplet pregnancy. One of the best sources for calcium is Tums, which you could already be taking for heartburn. Recent studies now suggest a strong link between hypocalcemia (low calcium in the body) to preeclampsia, which can be a serious complication of a multiple pregnancy.

During pregnancy an increased supply of iron is needed for hemoglobin, the oxygen carrying substance of your red blood cells which oxygenates the babies. In a twin/triplet pregnancy anemia is relatively common. It is the only requirement that cannot be met by diet alone. Usually an iron supplement is prescribed by your doctor. Anemia results from inadequate iron supply which can cause loss of appetite, extreme fatigue in the mother as well as decreased oxygen supply to the babies. Your body will absorb iron more easily if you combine it with foods which are acid such as yogurt, and those with high levels of vitamin C. Iron is also better absorbed if administered between meals, and not with your daily multi vitamin.

Many studies have indicated that excessive amounts of Vitamin A, Iodine, Mercury, and Vitamin D can be harmful to the fetus and/or mother during pregnancy. Consult your physician before taking increased amounts of these vitamins and minerals.

For those mothers who have a problem with nausea, papaya, ginger root, or extra vitamin B6 can be taken as a natural source or you may even need a prescription from your doctor for Zantac, Tagamet, Reglan, or Zofran which is given intravenously. A prescription is needed if you are unable to hold down fluids or food.

Hydration is crucial for adequate blood volume expansion and prevention of preterm labor during your whole pregnancy. Assurance of good blood volume expansion during your first through third trimester is vital for nourishing the babies. Hydration is helpful in the prevention and treatment of preterm labor. The uterus is a muscle and therefore when dehydrated will contract. If uterine contractions do appear the first line of effectiveness is to drink at least two (10-12 oz.) glasses of water or juice and lay down on your side. This position will increase blood flow to the uterus. It can take approximately 30 minutes to be absorbed by the circulatory system and provide hydration to the uterus.

If uterine contractions persist then you should contact your doctor and a tocolytic drug may be prescribed. One of the possible side effects of tocolytics in keeping with nutrition is that of decreased appetite and/or constipation which can make eating seem less appealing. Remember, prevention is the key, but if your doctor prescribes tocolytics then be mindful of your diet by getting adequate amounts of nutrients, hydration, calories and protein daily.

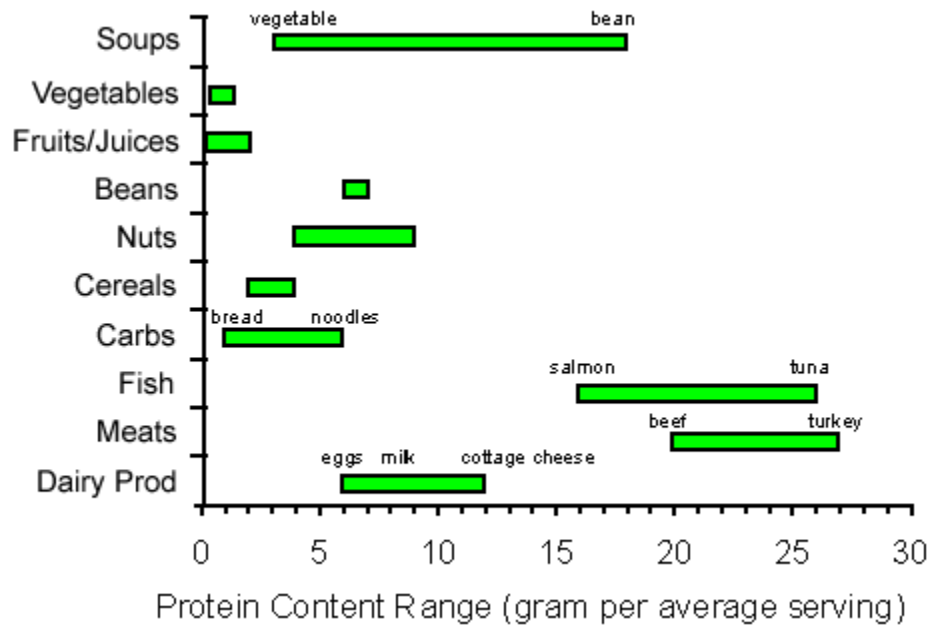
It is important that you eat well now, especially if your babies come early, giving them a fighting chance at life. Your babies are depending on you for nourishment. The quality of your babies growth, both physically and mentally can be affected by what you eat now. Figure 1 includes a suggested form to use in tracking protein and fluid intake in your diet. Figure 1 also includes certain food groups high in protein to include in your diet for those pregnant with multiples. Labels on food often include the amount of protein in grams per serving. Other sources are protein counter sheets available through nutritionists, health food stores, book stores and libraries.

Perhaps it is best stated by a young woman who took my multiple birth class. "My baby girls were born at 34 weeks gestation weighing 4 pounds 3 ounces, and 5 pounds 2 ounces. I truly believe that good nutrition along with a high protein diet made it possible for them to be take-home babies."

### **Figure 1 - Keeping Track Of What You Eat Everyday!**

	<b>Monday</b>	
	Food	Protein Count
Breakfast		
Snack		
Lunch		
Snack		
Dinner		
Snack		
Fluids		
Protein		
Total		

**Food Group / Protein Content Range Matrix**



### Recommended Grams of Protein a Day

- 110 grams protein for twins
- 140 grams protein for triplets

### Foods High in Protein

- milk, cheese & eggs
- fish, liver, chicken, lean beef, or port
  - beans (legumes)
  - whole grain breads
  - nuts, peanut butter

### Also include in your daily diet:

- one yellow & one green vegetable
- one citrus fruit (can be in the form of juice)
- plenty of fluids (water, juice & milk)