

# **WIC Postpartum Health Modules 1&2**

February 2015

(Disclaimer)

This text is intended to be used in conjunction with the online portion of these modules.

---

## TABLE OF CONTENTS

---

### **Module 1**

Introduction .....	4
Basic Nutrition .....	4-6
Nutrition Goals .....	4
Important Nutrients and Minerals.....	4
Folic Acid .....	4
Calcium .....	5
Lactose Intolerance and Low-fat Options.....	5
Iron .....	5
Iron in Foods.....	5
Vegetarian Diets .....	5
Fluids .....	6
Other Postpartum Health Tips .....	6
Teen Nutrition.....	6
Weight Issues .....	6-7
Risks for Overweight and Obese Women .....	6
Risks for Underweight Women.....	6
Average Weight Loss.....	7
Weight Loss After Pregnancy .....	7
Summary.....	7

---

## **Module 2**

Introduction .....	7
Positive Health Behaviors.....	7
Healthy Eating .....	8
Food Safety .....	8
Physical Activity .....	8-9
Managing Weight with a Healthy Attitude .....	9
Sleep and Caffeine .....	9
Oral Health .....	9
Smoking .....	9-10
Alcohol.....	10
Drugs.....	10
Medical Issues .....	10-12
Gestational Diabetes.....	10
Postpartum Depression .....	10-11
Difficult Outcomes of Pregnancy and Birth .....	11
Infant Loss .....	12
C-section and Medical Delivery .....	12
Teen Pregnancy .....	12
Family Planning .....	12-13
Postpartum Physical Changes .....	13
Caring for a Newborn .....	13
Summary.....	14

## Module 1

### **Introduction**

Bringing a baby into the world can be both amazing and rewarding; however, delivery doesn't mark the end of a pregnancy or its challenges. Emotionally and socially a mother's life changes dramatically bringing on a full range of emotions. Because a woman's body goes through a number of changes beginning with pregnancy, labor and delivery and then returning to a non-pregnant state, maintaining good nutrition takes on a special importance. In this module we will discuss postpartum nutrition and weight in terms of nutrition goals, important nutrients, risks for overweight women, risks for underweight women and average weight loss.

### **Nutrition Goals**

First let's talk about a postpartum woman's needs - replenishing all those valuable nutrients depleted after nine months of pregnancy. Every mother's needs are different depending on:

- Diet while pregnant.
- Underlying conditions.
- Severe morning sickness or blood loss during delivery.
- Twin or triplet pregnancy.
- Use of cigarettes, drugs or alcohol.

A well balanced diet will help replenish all the nutrient stores used during pregnancy.

### **Nutrient Needs**

Most postpartum women don't have to make major changes to their diets as long as they were eating healthy during pregnancy. However, two groups do need additional nutrients in their diets; women who are breast feeding and teens because they're still growing.

\*Having adequate nutrient stores can prepare women for future pregnancies.

### **Folic Acid**

The body needs folic acid or folate to make new cells and to build protein for growth.

- Taking folic acid prevents up to 70% of neural-tube defects.
- Foods containing folic acid include: legumes, leafy greens, orange juice, asparagus, fortified cereals and breads.

- Body absorbs half in natural foods, nearly 100% synthetic foods or vitamin supplements.
- Recommended dosage of 400 ug per day, 500 ug if breastfeeding, additional if the mother has a history of baby with neural-tube defects.

## **Calcium**

Another important nutrient is calcium. It's important to postpartum women because:

- It helps keep bones and teeth strong.
- Low intake over time may lead to thin brittle bones (osteoporosis).

### Tips

- Get plenty of calcium during teen years while still growing.
- To reduce bone loss during adult years – 1300 mg per day.
- 19 and older – 1000 mg per day (three 8 ounce servings of milk or milk products per day).
- Sources – dairy products, canned fish with bones, certain nuts and seeds, leafy greens and fortified breads or juices.

### Lactose Intolerance and low-fat options

- For lactose intolerance – substitute cheeses, yogurt, or small amounts of milk or milk with cereal.
- Choose low-fat and fat-free dairy products
- Consume 1% milk products to cut back on fat and calories.

## **Iron**

Iron is an important mineral because it carries oxygen through the blood.

- Iron needs are increased in postpartum women.
- Women need to eat plenty of iron rich foods to meet the daily requirements.
- Low levels of iron may lead to anemia over time.

### Iron in foods

Sources of iron:

- Animal products – beef, chicken, pork or fish.
- Plant foods – dried beans, tofu, and fortified cereals.
- Cooking in cast-iron pans.
- More iron absorbed – vitamin C foods eaten with iron sources.
- Less iron absorbed – coffee or tea consumed with a meal.

## **Vegetarian Diets**

Vegetarian diets can be perfectly healthy for postpartum women provided they eat foods containing adequate nutrients and minerals.

- Postpartum women need protein, calcium, and vitamin B12.
- Protein sources include – nuts, dry beans, soy products, eggs, and milk.
- Calcium sources include – fortified soy milk, firm tofu, fish with edible bones, fortified breads and juices.
- Vitamin B12 sources include – eggs, milk, fortified breakfast cereal, soy products, and vegetarian burgers.

## **Fluids**

Fluids are especially important for new moms. Drinking plenty of water helps carry nutrients throughout the body and helps flush toxins out of their system. In addition, drinking plenty of fluids helps:

- Get a woman's body back to pre-pregnancy state more quickly.
- Eliminate constipation.
- Reduce edema (swelling) after delivery.

## **Other Postpartum Health Tips**

- Continue to take prenatal vitamins following delivery.
- Limit fats and added sugars.
- Read Labels as a guide for choosing quick and healthy foods.
- Women who wait to get pregnant until their baby is 18-24 months old and who start out with higher stores of nutrients are likely to have healthier pregnancies and babies.

## **Teen Nutrition**

With teen pregnancy all the rules change because teens are still growing so they have higher requirements for nutrients. Healthy eating becomes especially important because teen mothers and their babies are competing for the same nutrients during pregnancy.

- Many teens do not meet nutrient recommendations.
- Many teens have a poor body image.
- Teen often get poor diet advice
- Postpartum teens at higher nutritional risk, but many want to improve health.
- It's up to each individual woman to make positive choices about her own nutrition – like choosing healthy foods, taking a multivitamin with 400 mcg of folic acid and waiting until their baby is around two before becoming pregnant again.

## **Weight Issues**

A primary concern for many postpartum women is losing weight following delivery. Some women experience the following weight issues:

- Many return to 2 to 4 lbs of pre-pregnancy weight.
- Not all lose weight – 15 to 20% keep 11 lbs or more.
- Overweight or obese before pregnancy – keep more postpartum weight.
- Several pregnancies – contribute to significant weight gain over time.

## **Risks for Overweight and Obese Women**

- Long term health risks – diabetes, hypertension, heart disease.
- Increased complications during pregnancy – early delivery, gestational diabetes, gestational hypertension, delivery by cesarean section.
- Experience more infertility.
- Increased risk babies with birth defects (including spina bifida).

## **Risks for Underweight Women**

- Increased risk for osteoporosis.
- Menstrual irregularity.
- Infertility.
- Higher risk delivering infant with restricted growth.

## **Average Weight Loss**

While there's no exact science for weight loss, after delivery there's a standard that applies to most new mothers.

- Following delivery – baby, placenta, amniotic fluid, blood loss accounts for about 10 to 13 lbs.
- First 6 to 8 weeks – uterus shrinks 2.5 lbs to 2 ounces, body changes 7 to 11 lbs loss.
- First 3 to 4 months – greatest weight loss.
- By 6 months – body weight more stable, closer to pre-pregnancy weight.
- Many women gain weight during the first year postpartum, due to lifestyle changes that come from being a parent. That's another reason why it is good to wait until the baby is about two years old before becoming pregnant again.

## **Weight Loss After Pregnancy**

It's a common belief that fat gained during pregnancy provides the extra calories a mother needs for breastfeeding. When it comes to losing that extra weight, it comes down to:

- Amount of fat gained during pregnancy.
- Mother's metabolism.
- Health.
- Postpartum diet.
- Breastfeeding.
- Keeping perspective – weight loss at a slow, healthy rate.

## **Summary**

In this lesson we discussed postpartum in terms of nutrition goals, important nutrients, risk factors for overweight, obese or underweight women and average weight loss. Continue on to Module 2 to learn more about postpartum health.

# **Module 2**

## **Introduction**

In this module we'll discuss some of the day to day challenges of being a new mom including positive health behaviors in terms of healthy eating, physical activity and

managing weight. We will also discuss medical issues, difficult outcomes during pregnancy and birth, family planning and postpartum life changes.

## **Positive Health Behaviors**

It can be especially difficult for mothers with newborns. New mothers may feel physically and emotionally exhausted at times. As postpartum women are still recovering from their pregnancy, they need to ensure they get the proper amount of nutrition and physical activity for full recovery.

### **Healthy Eating**

Trying to eat balanced and nutritious meals while caring for a newborn can be a challenge.

- New moms often eat on the run.
- They need realistic suggestions about healthy eating.
- Most importantly, keep meal planning simple.

#### **Nutrition Tips for new moms**

- Eat breakfast.
- Focus on healthy snacks and mini meals.
- Homemade meals prepared by family and friends.
- Cook large batches, creative leftovers.
- Choose foods lower in fat and calories.
- Reach for fruit and vegetables any chance you get.
- Be smart buying convenience foods – read labels for healthier choices.

### **Food Safety**

Food safety should always be important when preparing meals. As postpartum women's bodies have already been through a great deal of stress, they need to pay special attention when handling and preparing food. Tips include:

- Clean – wash hands and surfaces often.
- Separate – don't cross-contaminated (use separate cutting boards).
- Cook – cook to proper temperature.
- Chill – refrigerate promptly.

### **Physical Activity**

Physical activity can improve aerobic fitness, flexibility and muscle tone even for women who aren't trying to lose weight. Activity helps improve mood and a new



mom's overall outlook on life. Some barriers to physical activity include:

- Bad weather
- Concerns about safety
- Limited time and money
- Lack of transportation and child care

### **Tips for getting physical activity**

- Stay in on rainy or overly hot day with exercise video from library.
- Take a brisk walk with the baby stroller.
- Safety concern, walk in mall or with friends.
- Walk more, dance more, play more – simply keep moving more as part of an active lifestyle.
- Check with your doctor before starting any exercise program, most women ready 6 weeks postpartum.

### **Managing Weight with a Healthy Attitude**

Postpartum women are often concerned with diet and managing weight. Healthy eating begins with a healthy attitude and healthy behaviors including:

- Don't eat just because it's mealtime or you're in the kitchen.
- Wait until you're actually hungry and stop eating when you're full.
- Recognize stress – try to avoid stress eating during the postpartum period.

### **Sleep and Caffeine**

- Lack of sleep common among new mothers.
- Suggest taking small naps while the baby is sleeping.
- Caffeine may affect a mother's mood.
- Breastfeeding mothers may transfer caffeine to infants causing – wakefulness, hyperactivity, irritability.
- If you drink 3 or more cups of coffee a day – you may want to cut back.

### **Oral Health**

- Take care of your own teeth – likely to teach good brushing and flossing to your child.
- Parents should avoid – biting or chewing food for their baby, sharing utensils or toothbrushes, putting a pacifier in their own mouth to clean it as the actions may spread germs.

## **Smoking**

- Pregnancy motivates many women to quit.
- Many may start again after the baby is born.
- Health risk for mother.
- Second hand smoke increases risk for Sudden Infant Death Syndrome (SIDS), ear infections, severe respiratory illnesses – bronchitis, pneumonia, asthma.

### **Postpartum Women who Resume Smoking**

- Many women stop breastfeeding as they're concerned about quality of breast milk (breastfeeding is still recommended).
- Women should cut back and always smoke outside or away from baby.
- Should smoke after breast feeding to reduce amount of nicotine in breast milk.
- Breast feeding still recommended if mother smoking 2 packs or less per day
- For additional information - <http://ashline.org>

## **Alcohol**

- Women who have stopped drinking – often go back to previous patterns after having their baby.
- Alcohol adds extra calories.
- Can limit a mother's ability to care for her infant.
- Can impair person's ability to drive.
- Passes into breast milk – high levels can cause problems, weak suck, irritability, excessive drowsiness, weakness and decreased linear growth.

## **Drugs**

- Illegal or prescription drugs – can affect judgment, actions and may put self and family in danger.
- Some quit during pregnancy then return to habit after giving birth.
- Illicit drugs pass into breast milk – drug users should never breastfeed.
- Non-judgmental atmosphere helps – offer referrals to agencies, rehabilitation programs for help.

## **Medical Issues**

Besides facing the emotional challenges of being a new mother, many postpartum women experience physical changes in terms of health. Recognizing symptoms early on is important, as there are several medical issues common in postpartum women.

### **Gestational Diabetes Mellitus (GDM)**

- Develops during pregnancy.
- Most women are tested between 24 and 28 weeks gestation.

- Usually goes away after the baby is born.
- More likely to have GDM in future pregnancies.
- Higher risk of developing type 2 diabetes later – 20 to 50%.

### **Postpartum Depression**

- Feelings of anxiety, depression after delivery.
- Can affect appetite, food intake and overall health.
- Reactions range – mild anxieties (postpartum blues) to severe depression (postpartum depression, postpartum psychosis).
- WIC staff not qualified to diagnose depression – should refer to health care provider.

### **Postpartum Blues (Baby Blues)**

- 50-75% of postpartum women experience the “Baby Blues”.
- Temporary – usually appears in 3 to 4 days after delivery.
- Usually goes away in several days to several weeks.
- Very common, but women need adequate support so blues don’t lead to more serious depression.

#### **Symptoms**

- Mood swings.
- Crying easily and for no reason.
- Irritability.
- Restlessness.
- Difficulty sleeping.
- Difficulty eating.
- Uncertainty about caring for a new baby.

### **Postpartum Depression (non-psychotic)**

- Form of depression more severe than baby blues.
- Symptoms don’t go away in few weeks.

### **Postpartum Psychosis**

- Rare form of postpartum depression, far more serious.

### **Treatment**

- Left untreated, both types can have long term consequences.
- Symptoms (both mild and severe) can be treated by professional help and support.

### **Difficult Outcomes of Pregnancy and Birth**

Many women spend nine months dreaming about the perfect delivery and their healthy baby, but unfortunately that’s not always the case. Some difficult outcomes of pregnancy and birth may occur.

- Miscarriage – a spontaneous loss of fetus that occurs prior to 20 weeks gestation.
- Fetal death (stillbirth) – the death of the fetus after 20 weeks gestation.
- Neonatal death – the death of an infant within the first 28 days after birth.
- Sudden Infant Death Syndrome (SIDS) - the sudden, unexplained death of an infant under 1 year of age.
- SIDS declined dramatically since 1992 – American Academy of Pediatrics recommends healthy infants sleep on their backs, no smoking around infants, avoid soft bedding products and breastfeed.

### **Infant Loss**

Women who have experienced loss need plenty of extra support and understanding as they work through the grieving process.

- Higher risk for postpartum depression.
- Breastfeeding women need to avoid engorgement with sudden weaning.
- Sometimes listening is the best medicine – don't compare stories to your own, focus on her and her grief.
- WIC staff should recommend support groups.

### **C-section and Medical Delivery**

Some women experience depression following a C-section and they've lost their dream of the perfect birth. There are also some complications following a C-section for women who plan to breastfeed. Problems breastfeeding may include:

- Baby may not be able to start nursing right away because he/she received a bottle in NICU.
- Mother may have trouble holding the baby with her incision.
- Drugs from C-section stay in baby longer due to immature system.
- Babies early weight loss.
- Jaundice in the baby – indicated feeding problems.

#### **Recovery for new mothers following a C-section**

- Additional protein, vitamin C, iron, fluids needed because of surgery and blood loss.

### **Teenage Mothers**

Teen pregnancy offers it's challenges. Fortunately there are so many organizations and schools now that offer support and education to help teen mothers. It's important to do your very best to make expectant teenagers feel comfortable and at ease with their situation. WIC counselors should:

- Greet and call teens by name.
- Create an attitude of acceptance.
- Counsel teen individually.
- Offer choices when possible.
- Allow the teen to offer her own ideas and suggestions.
- Ask about support.
- If depressed, refer her to a health care provider.

- Focus on a few positive changes.

## **Family Planning**

Discussing future family planning is an important part of WIC counseling for new mothers. Counselors make new mothers aware:

- Fertility returns quicker for women who are not breastfeeding.
- Avoiding pregnancy right away helps postpartum body restore itself.
- Spacing pregnancies at least around two years apart will allow time to reach a healthy weight, replenish nutrients like iron and folic acid, and to decrease the risk of having a low birth weight baby.
- Contraception methods – women should talk to a health care provider.

### **Tips for bringing up family planning**

- “Your baby is very cute; do you plan to have more?”
- “Being a new parent can be a wonderful experience, but it’s a lot of work and can be stressful too. How long do you think it’ll be before you’re ready to get pregnant again?”
- “Have you and your husband talked about having more babies?”

## **Postpartum Physical Changes**

After giving birth, a woman’s body goes through a number of physical changes. It’s important to make postpartum women aware of normal changes and what to expect in the weeks following delivery.

- Afterbirth pains (uterine contractions) – common as the uterus shrinks.
- Episiotomy or tearing – occurs during delivery and may cause pain.
- Cesarean birth – must care for incision, may be discomfort at site, avoid heavy lifting and change how to hold the baby.
- Breast swelling.
- Vaginal discharge – occurs 2 to 6 weeks after delivery.
- Hemorrhoids – result of pregnancy or delivery.
- Constipation – after delivery.
- Headaches, shoulder pain, back pain and fatigue
- Stretch marks and varicose veins.
- Loss of large amount of hair – a few weeks after delivery.

## **Caring for a Newborn**

Caring for a newborn creates a whole new world – from spit-up to changing diapers to sleep deprivation. New mothers need to not be too hard on themselves as even experienced mothers struggle through all the same challenges every day. It’s even more challenging for women with:

- Twins or triplets.

- Low birth weight infants.
- Fussy infants.
- Special need infants.

### **Summary**

In this module, we've discussed healthy eating, physical activity and managing weight, medical issues for postpartum women, dealing with difficult outcomes of pregnancy and birth, postpartum family planning and postpartum life changes. A woman must be fully aware of postpartum changes to her body along with the proper nutrition needed for a full recovery. This time can be extremely challenging and also extremely rewarding as a new mother along with her baby change and grow together.

## **References**

Bartley, K.A., Underwood, B.A., & Deckelbaum, R.J. (2005). A life cycle micronutrient perspective for women's health. *American Journal of Clinical Nutrition*, 1088S-1193S

Buckley, S.J. (2005). Epidurals: Risks and concerns for mother and baby. *Previously; the Hidden Risks of Epidurals in Mothering, 133, Adapted from Gentle Birth, Gentle Mothering: The Wisdom and Science of Gentle Choices in Pregnancy, Birth and Parenting*. Retrieved from <http://www.sarahjbuckley.com/articles/epidural-risks.htm>

Best Start; 3-Step Counseling Strategy (1997). *The National WIC Breastfeeding Promotion Marketing project: Research Results*. Alexandria, Virginia. Tampa, Florida: Submitted to Food and Consumer Services, USDA. En Postpartum depression. (n.d.). Retrieved 2008 from en: [http://en.wikipedia.org/wiki/Postpartum\\_depression](http://en.wikipedia.org/wiki/Postpartum_depression)

King, J.C. (2003). The risk of maternal nutritional depletion and poor outcomes increases in early of closely spaced pregnancies. *The Journal of Nutrition (133)* 1732S-1736S. Kmom@Vireday.com, (1998). *Gestational Diabetes: Post-Partum Care and Concerns*. Retrieved from [http://www.plus-size-pregnancy.org/gd/gd\\_postpartum.htm](http://www.plus-size-pregnancy.org/gd/gd_postpartum.htm)

NewS-Medical.Net. (2007). *Impact of sleep deprivation on postpartum weight retention*. Retrieved from <http://www.news-medical.net/?id=32707>

Office on Women's Health ( 2000). *Women's health issues: An overview, women's health issues* [Fact Sheet, part 2]. Retrieved from <http://www.4woman.gov/owh/pub/womhealth%20issues/priority.htm>

Olson, C.M., Strawderman, M.S., Hinton, P.S., & Pearson, T.A. (2003). Gestational weight gain and postpartum behaviors associated with weight change from early pregnancy to 1 y postpartum. *International Journal of Obesity* 27, 117–127. Partnership for Food Safety. *Fightbac.org*. Retrieved from <http://www.fightbac.org/content/view/6/11/>

Schrier R.W (2007). *Diseases of the kidney and urinary tract* (8<sup>th</sup> ed.). Lippincott :Williams & Wilkins, pg 2231. Strauss, R.S. (1999). Self-reported weight status and dieting in a cross-sectional sample of young adolescents: National health and nutrition examination survey III. *Archives of Pediatrics & Adolescent Medicine*. United States Department of Agriculture. *ChooseMyPlate.gov; Steps to a healthier you*.

Retrieved from <http://www.ChooseMyPlate.gov>

Voorhees, C.C. et al (2002). Early predictors of daily smoking in young women: The national heart, lung, and blood institute growth and health study. *Preventive Medicine* , 34(6), 616-624. Watkins, et al (2003). Maternal obesity and risk for birth defects. *Pediatrics* 111, (5),1152-58.