



# Women's Health & Reproductive Nutrition Report

Volume 5 Issue 3 Winter 2005

## Nutrition for HIV Positive Women: Practical Guidelines

Lisa Zullig, MS, RD, CDN  
Karen Bellesky, RD, LD

### INTRODUCTION

As we enter the 21<sup>st</sup> century in the United States, we continue to struggle with the actuality of AIDS and HIV disease. According to the Centers for Disease Control and Prevention (CDC), there are an estimated 800,000 to 900,000 people currently living with HIV in the United States. Additionally, approximately 40,000 new infections are diagnosed each year<sup>1</sup>.

More people are living with HIV/AIDS than ever before. In 1990, the prevalence of AIDS among adolescents and adults in the US was 76,000, compared to 312,000 by the end of 1999. While the CDC's expanded AIDS case definition<sup>2</sup> was a factor in this increase, survival rates have also dramatically improved due to better treatment options.

Concurrently, there has been a shift in the populations affected by the disease. Early in the epidemic, HIV/AIDS was understood to be a disease primarily affecting homosexual men. However, while transmission rates and AIDS mortality rates have improved for some demographic groups; they have worsened among women<sup>3</sup>. The proportion of females living with HIV/AIDS today has grown. Heterosexual transmission can be attributed to 68% of female AIDS

cases, with injection drug use accounting for 25%.

As illustrated by Figure 1, the rate of all AIDS cases reported among adult and adolescent women more than tripled between 1985 and 2002. Women of color have been affected disproportionately. African-American women represent the highest number of annual new HIV infections (64%), with Hispanic (18%) and White women (18%) following<sup>1</sup>. Yet, while African-American and Hispanic women represent less than one-fourth of all US women, they account for 78% of all AIDS cases reported among women in the nation. In 1999, HIV/AIDS was the 5th leading cause of death for all US women aged 25-44, and the 3rd leading cause of death for African-American women of the same age<sup>4</sup>.

Nutrition professionals working with women are challenged to address the growing need for care for HIV positive individuals. These women are at risk for multiple nutrient deficiencies as well as alterations in nutrient metabolism. Metabolic complications of the disease and/or its treatments further increase the need for nutrition intervention. Nutrition therapy can help improve quality of life, manage symptoms and side effects, and protect against

infections<sup>5</sup>. This article will outline nutritional guidelines for HIV positive women, as well as highlight strategies to manage some of the metabolic complications occurring in HIV disease.

### HIV NUTRITION 101: Patient Education

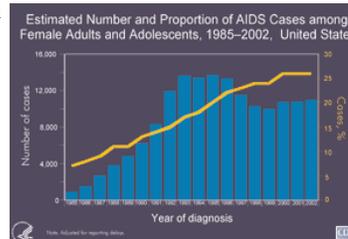
Basic nutritional guidelines for HIV positive women are based on the food guide pyramid. They are similar to the guidelines for all healthy women, with a few modifications.

Anecdotally, the prevalence of lactose intolerance seems to be much higher in the HIV population than in the general population, and, as discussed later, adequate calcium intake is of concern.

HIV positive women are recommended to take a daily vitamin and mineral supplement. Routine activity is recommended for all patients.

It is of utmost importance for the patient to understand the principles related to food safety. Raw and undercooked (any protein food cooked less than medium well) protein foods, and especially soft cheeses, and unpasteurized milk or dairy products should be limited or avoided as much as possible. Other foods warranting extra precautions include raw honey, and salad bars where food safety is not guaranteed. Food sanitation principles such as using different cutting boards

(continued on page 4)



CDC HIV/AIDS Surveillance in Women  
[www.cdc.gov/hiv/graphics/women.htm](http://www.cdc.gov/hiv/graphics/women.htm)

## Women's Health & Reproductive Nutrition Report



A DIETETIC PRACTICE GROUP OF  
AMERICAN DIETETIC ASSOCIATION  
Your link to nutrition and health.™

*Publications Coordinator*  
Kathy Scalzo, MA, RD

*Assistant Publications Coordinator*  
Miri Rotkowitz, MA, RD

*Editorial Board*  
Darlene Husch, MA, RD, CDE  
Theresa Romano, RD

*Resource Review*  
Lori Yenesel, RD

*Lactation Case Study Coordinator*  
Karen Peters, MBA, RD, IBCLC

The *Women's Health & Reproductive Nutrition Report* (ISSN 1081-3233) is a quarterly publication of the Women's Health and Reproductive Nutrition Dietetic Practice Group (WHRN DPG) of the American Dietetic Association. The WHRN Report features articles, as well as information on programs, materials, positions, and products for use of its readers. News of members, book reviews, announcements of future meetings, requests for information, or other items of interest to women and reproductive nutrition dietetics practitioners should be sent to the Publications Editor by the next published deadline date.

### Subscription information:

Subscriptions are available for those who are ineligible for ADA membership for \$32 (domestic); \$35 (international) by sending a check to the WHRN Secretary made payable to: ADA/WHRN DPG. Back issues of the publication may also be ordered. Members: \$5 each; Non-members: \$10 each.

The statements in this publication do not imply endorsements of the WHRN DPG or the American Dietetic Association. © 2003, WHRN logo is registered in U.S. Patent and Trademark Office. All rights reserved.

# ABOUT THE AUTHORS

***Nutrition for HIV Positive Women: Practical Guidelines* .....Page 1**  
**Lisa Zullig, MS, RD, CDN** is a nutritionist at God's Love We Deliver in New York City. Active in the nutrition profession, Ms. Zullig is the Secretary for the HIV/AIDS Dietetic Practice Group Executive Committee. In 2002, the American Dietetic Association and the New York State Dietetic Association honored her as a Recognized Young Dietitian of the Year.

**Karen Bellesky, RD, LD** is the Director of Nutrition Services and the Ryan White CARE Act grants coordinator for Chase Brexton Health Services, Inc. in Baltimore, MD. Ms. Bellesky has been active in the HIV/AIDS DPG since 1998 and is the in-coming Chair of the DPG. In 1997 and again in 2002, she helped to write the publication *Nutrition Guide for Providers and Clients* for the HIV/AIDS Bureau of HRSA (Health Resources and Services Administration).

***Interpreting the Research: Lactation, Obesity and Diabetes*.....Page 7**  
**Maureen A. Murtaugh, PhD, RD** A past chair of our DPG, Maureen is the author of multiple articles on women's health. With her PhD in Epidemiology, she is currently on the faculty of the University of Utah College of Medicine, where she is enormously busy with grant writing! In her spare time, she enjoys activities in the great outdoors like biking and white water rafting.

**Teresa Jacobs, MPH** works in St. Paul, Minnesota, developing health education programming for parents and youth. She recently co-authored *The Vegetarian Manifesto*, a book for vegetarian teens that provides support and advice on how to maintain a healthy plant-based diet.

***Lactation Case Studies: The Basics* .....Page 5**  
**Karen Peters, MBA, RD, IBCLC** is the Executive Director of the Breastfeeding Task Force of Greater Los Angeles. Karen has generously offered to volunteer her time to coordinate a regular lactation case study column. E-mail her at [kpeters@breastfeedla.org](mailto:kpeters@breastfeedla.org)

***The Alphabet Soup of Lactation*.....Page 6**  
**Claire Dalidowitz, MS, MA, RD, CD-N** was the chair of our DPG in 2000. She remains active both in WHRN activities and in the profession, currently serving on the Board of Directors for the International Board of Certified Lactation Consultants. As indicated in her article, Claire is seeking input on the possibility of a new credential. Please e-mail your comments to [Cdalido@ccmckids.org](mailto:Cdalido@ccmckids.org)

***A Brief History of WHRN* .....Page 8**  
**Miri Rotkowitz, MA, RD** is the assistant editor for the WHRN DPG. She is an out patient nutritionist at New York Methodist Hospital's Women's Health clinic, and she teaches for the hospital's diabetes center. She writes regularly for the James Beard Foundation newsletter and for Beard House magazine.

***Women's Health Report Card* .....Page 10**  
**Kathy Scalzo, MA, RD, CDN** is the editor for the WHRN Report. In between issues of the newsletter, Kathy recruits volunteer authors. New ideas and new contributors are always welcome. E-mail her today at [kscalzo@lij.edu](mailto:kscalzo@lij.edu).

**Darlene Husch, MA, RD, CDE**

Women's Health and Reproductive Nutrition Dietetic Practice Group (WHRN DPG) is a volunteer organization. In the book, *The Gift of Leadership*, the author Mark Levine states that the description of the purpose of a voluntary organization can best be summed up in four words, "TO GIVE VOICE TO...."

Last February, I was very honored to be among the national leaders of the American Dietetic Association selected to attend the ADA's first Leadership Institute in Tucson, Arizona. The purpose of this conference was to enhance the leadership competencies of ADA members through a combination of information, skill development and practice-based educational experiences. I learned that leaders do not set out to become leaders. What actually happens is people set out to live their lives, expressing themselves fully. When that expression is of value, they become leaders. The point is not to become a leader, but to become yourself!

Dietetic Practice Groups (DPGs) have only been in existence since 1977. Members of our Association consistently rate DPGs as a valuable benefit. They promote networking, mentoring, information exchange,

professional enhancement and leadership opportunities.

This is an exciting time of the year for DPGs. It is the time of the year to elect officers. I strongly encourage any member of this practice group to take the opportunity to volunteer, nominate or run for an office.

You do not have to enter WHRN DPG at the Board level. For example, I started in the practice group as the Resource Reviewer. You may want to enter WHRN DPG as a volunteer on one of our committees. When you volunteer, you will feel a sense of accomplishment and ownership.

I hope you will step forward and volunteer today. Remember: many of the leaders of tomorrow are getting their leadership start at the committee level. By taking on a volunteer role in WHRN DPG, you will have the chance to make a difference in the lives of others. We need you, "TO GIVE VOICE TO..." If you would like to volunteer on WHRN DPG, please call or email me today!

***Darlene started out as the Resource Reviewer for WHRN DPG - now she is the Chair of the Practice Group! VOLUNTEER TODAY!***

### MEMBER BENEFIT

*Connect with your colleagues. Join the list-serve!  
E-mail: Kimberly Slominsky kimsgateway@aol.com*

## Calendar of Events

*Compiled by Jamillah Hoy-Rosas, MPH, RD  
jhoyrosas@betances.org*

March 2005. National Nutrition Month® American Dietetic Association. [www.eatright.org/Public/nutritionInformation/92\\_11422.cfm](http://www.eatright.org/Public/nutritionInformation/92_11422.cfm)

March 1-3, 2005. The 19th National Conference on Chronic Disease Prevention and Control. Health Disparities: Progress, Challenges, Opportunities. Atlanta, GA. [www.cdc.gov/nccdphp/conference](http://www.cdc.gov/nccdphp/conference)

March 5, 2005. 4th Annual NIAC and HIV/AIDS DPG Conference: Leading-Edge Update on Nutrition and Psycho-Social Management in HIV. New York, NY. [www.gnyda.org](http://www.gnyda.org)

March 11-13, 2005. Polycystic Ovary Syndrome: The Perfect Endocrine Storm. Annual Conference. Tucson, Arizona.  
<http://www.afterthediet.com/Perfect%20Storm.htm>

April 4-10, 2005. National Public Health Week, American Public Health Association. [www.apha.org](http://www.apha.org).

April 13-16, 2005. 2005 Society for Behavioral Medicine (SBM) Annual Meeting and Scientific Sessions. Behavioral Medicine and Public Health: Promoting the Health of Individuals, Families, Communities, and Populations. Mount Laurel, NJ  
<http://www.sbm.org>

April 29-May 1, 2005. "Women's Health 2005: Clinical Insights for the Practitioner" Williamsburg, Virginia. <http://www.womenshealth.vcu.edu/wh2005/>

April 30-May 1. March of Dimes 2005 Walk America ([www.walkamerica.org](http://www.walkamerica.org))

May 2005. National Osteoporosis Awareness and Prevention Month [www.nof.org](http://www.nof.org)

May 8-14. National Women's Health Week [www.4woman.gov](http://www.4woman.gov)

(continued from page 4)

and utensils for raw and cooked meats, and maintaining appropriate food temperatures must be stressed. In addition, the importance of washing fresh produce well before consumption, including peeled foods to avoid cross contamination from the peel to the meat of the fruit, must be taught. Hand washing with soap and warm water, especially during meal preparation, is another essential skill. Lastly, be sure your clients understand and know how to locate the "use by" dates on all food packages.

A safe water supply is often taken for granted. Encourage your clients to use either bottled water filtered to less than one micron, or to boil tap water for one minute and to use this water for drinking, making ice cubes, and for food preparation that does not require boiling the water (for instance, the cold water used in making gelatin).

Basic nutrition interventions are often needed to combat medication or disease related symptoms of HIV. AZT (also called zidovudine or Retrovir®), the first antiretroviral medication available for the treatment of HIV disease, often caused severe side effects. Now used as part of combination medications such as Combivir® or Trizivir®, the side effects are somewhat improved but may still include nausea and vomiting and/or anorexia. Less common side effects can include lactic acidosis and hepatomegaly with steatosis, but the majority of the cases for these side effects have occurred in women.

Debilitating fatigue from anemia is the most common medication side effect and the most difficult for patients. Treatment tends to be either blood transfusions or the use of epoetin alfa (Procrit® or Epogen®). It may be necessary for the nutrition professional to arrange for home delivered meals for the patient who exhibits this fatigue. Other symptoms, and possible remedies are outlined below.

### ADVANCED HIV NUTRITION FOR THE PROFESSIONAL: Metabolic Complications

**Bone Loss:** Among the general population, bone loss

begins around age 35 years in both men and women, with rates accelerating in women after menopause. Progressive loss of bone mineral density (BMD) can lead to osteopenia and osteoporosis. Compounded with existing risk factors for bone loss such as age, race, low weight, smoking, excessive alcohol use and history of fracture, HIV positive women face additional risk. Studies show BMD loss occurs more frequently in both

<b>CD4 Guidelines</b>
Normal count 500-1600 cells/mm <sup>3</sup>
Typical Initiation of Antiretroviral Therapy <350 cells/mm <sup>3</sup>
Diagnosis of HIV <200 cells/mm <sup>3</sup>
Source: <a href="http://www.hivguidelines.org">http://www.hivguidelines.org</a>

HIV infected women of normal weight and those with wasting syndrome, regardless of highly active anti-retroviral therapy (HAART), than in matched HIV negative controls<sup>7-9</sup>. Disturbances in bone metabolism may be due to many factors such as nutritional status, hormonal function, body composition and the effects of medication<sup>7</sup>. Additionally, HIV disease progression, as depicted by lower CD4 counts, may support disturbances in bone metabolism<sup>7,9</sup>.

Due to increased risk of morbidity related to bone loss at all stages of HIV disease, pro-active treatment for this population is warranted. Further testing for osteopenia and osteoporosis should be considered for women who present with a family history of bone disease, history of poor dietary intake, history of fracture or immobility and abnormal lab values. It is recommended HIV positive women follow the guidelines effective for HIV negative women, including the optimization of dietary intake of calcium (1500 mg/day) and Vitamin D (400-800 IU/day) through food, and supplements if necessary. Some good dairy and non-dairy sources of calcium are: low-fat yogurt, cottage cheese and milk; canned salmon or sardines with bones; calcium enriched soymilk, tofu, cooked kale and collard greens. Calcium carbonate and calcium citrate are the most commonly used supplements. Calcium citrate may be the better choice; it does

(continued on page 14)

<b>Symptom Management</b> <small>Adapted from<sup>6</sup></small>	<b>Diarrhea</b>	<ul style="list-style-type: none"> <li>&gt; Increase fluids, especially water, broths, and diluted fruit juices and sports drinks. Avoid caffeine and alcohol.</li> <li>&gt; Eat small servings every few hours.</li> <li>&gt; Go back to the basics of the BRAT (bananas, white rice, applesauce and white toast) diet.</li> <li>&gt; Lactose-containing products as well as high fiber foods and high fat foods can make diarrhea worse.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; Stay in an up-right position for at least 2 hours after eating</li> <li>&gt; In addition to the recommendations for diarrhea, eat bland foods like eggs, potatoes, rice, crackers, pretzels and rice.</li> </ul>	<ul style="list-style-type: none"> <li>delivery foods from a restaurant; or ask family or friends to help with cooking duties.</li> </ul>
	<b>Nausea/Vomiting</b>	<ul style="list-style-type: none"> <li>&gt; Avoid strong smelling foods.</li> </ul>	<p><b>Fatigue</b></p> <ul style="list-style-type: none"> <li>&gt; Have easy-to-prepare foods available all the time. These would include frozen meals; crackers; peanut butter; cheese; pasta and jarred sauces.</li> <li>&gt; Access to community home delivered meal programs; order</li> </ul>	<p><b>Change in Taste</b></p> <ul style="list-style-type: none"> <li>&gt; Marinate protein foods with fruit juices, Italian dressing, soy sauce, sweet and sour sauce;</li> <li>&gt; Try different spices;</li> <li>&gt; Suck on hard candies, especially sour balls;</li> <li>&gt; Add lemon or lime juice or vinegar to vegetables or meats;</li> <li>&gt; Use mouthwash and brush your teeth and tongue right before you eat.</li> </ul>

**By Karen Peters, MBA, RD, IBCLC**

Many times a new mother faces breastfeeding challenges best addressed by reviewing the basics of breastfeeding management. Dietetic professionals working with this population should be trained to identify what is normal and can be followed up in a Mother's Support Group, as described in the three following cases, as well as to recognize what is abnormal and should be referred to an Internationally Board Certified Lactation Consultant (IBCLC).

## **CASE 1: Positioning**

Mary came to the Breastfeeding Clinic complaining of sore nipples when her baby was three weeks old. Her baby was gaining weight well, breastfeeding frequently, and had adequate urine and stool output.

Mary's awkward positioning caused the baby to have a poor latch. She lifted her breast high, hiked her shoulder up, and pressed on the baby's head forcefully to bring him to breast. The resulting pressure on the baby's head caused him to push back against her hand. Combined with breast distortion and shoulder tension, breastfeeding felt like a battle.

Correcting the problem involved teaching Mary to allow the breast to rest in its normal position, not to lift the breast to the baby, but to bring the baby's nose to nipple level. Mary also had to learn to support her son's shoulder blades and allow him to have control over his head. Once Mary changed her positioning, her nipple pain disappeared completely and she and her son found breastfeeding enjoyable.

## **CASE 2: Latch**

Sharon came to the Breastfeeding Clinic with her 5 day old son, Jason, complaining of sore nipples. Her left nipple had an open wound and she was beginning to resent the frequent feeding. Sharon was also concerned because Jason had lost weight; he was 5% below birth weight. Generally, 7 to 10% weight loss after birth is considered within normal limits. Jason had 5 bowel movements in the last 24 hours. For a five day old, the minimum is four bowel movements each larger than a quarter in size and bright yellow in color.

Sharon positioned her son well, on his side with his body completely facing her body. She supported his shoulder blades and the base of his head. She brought his nose to nipple level in the transition hold (right hand supporting baby's back when

bringing baby to left breast). However, when he opened his mouth only slightly, she leaned forward to insert her nipple in his mouth. She cried, "ouch," and yet let him stay attached. Quickly, she was instructed to release the suction. Her nipple had a white crease and a wound on the top.

Correcting the latch involved teaching Sharon to wait for Jason to open wide, like a yawn. When he opened his mouth widely, then she had to bring him quickly up and onto the breast. She needed to learn to let comfort be her guide; if it hurt, she had to take him off and re-latch with a wider mouth.

Sharon followed-up in a Support Group one week later sharing that not only was Jason above his birth weight, but that her nipples were completely healed. He was opening his mouth widely to latch. She was looking forward to each breastfeeding session, not resenting them.

## **CASE 3: Frequency**

Emily's son, Luke, was below birth weight at his two week check up and she was referred to the Breastfeeding Support Group. She had incorrectly been instructed to feed Luke every three hours instead of being told to feed him a minimum of 8 times per 24 hours. Sometimes he was deeply asleep and difficult to rouse. He often fell asleep at the breast. Between feedings she placed him in the car seat.

Emily was not reading Luke's feeding cues. She did not know when he put his hands in his mouth, it was a sign he was interested in feeding. By watching the clock and not the baby, Emily was missing opportunities when he was alert and ready to feed. Additionally, being placed in the warm and rounded car seat probably contributed to his oversleeping and may have impeded breathing well in that position.

To correct the frequency of feeding problem, Emily was instructed to feed Luke on cue, to hold him or to lay him on his back between feedings, and to use the car seat only for car rides. Additionally, Emily returned to the Support Group, where she listened to other mothers share how they read their babies' cues. Emily attended the Support Group weekly and her son gained weight well.

If you would like to share a case study, please write to Karen Peters, [kpeters@breastfedla.org](mailto:kpeters@breastfedla.org) for guidelines.



# Lactation Alphabet Soup: What Do Those Letters Really Mean?

**Claire Dalidowitz, MS, MA, RD, CD-N**

*Do you feel confident addressing the issues involved in lactation management, or are you intimidated by the “alphabet soup” of lactation credentials? This article is here to help set you on the path to achieving the appropriate lactation education to help you best help your clients.*

## IBLCE CONSIDERS A SECOND CREDENTIAL

The IBLCE is considering offering a second credential designed to certify the skills and knowledge of breastfeeding caregivers, counselors, and educators who desire board certification, but who do not have the opportunity to accumulate the practice hours required for the IBCLC credential.

This credential:

- Will be offered to professionals and paraprofessionals working with breastfeeding mothers, including: WIC peer counselors, dietitians, speech pathologists, midwives, and other public health workers.
- Will require lactation-specific classroom education and breastfeeding consultancy practice hours for exam eligibility.
- Will not be equivalent to the IBCLC. The in-depth level of lactation expertise and knowledge of the IBCLC will not be required.

This credential will offer benefits to the certificant, her employer and supervisor, and the public:

- The certificant may validate and improve her knowledge, and gain recognition of her skills while improving care for mothers.
- The credential will help employers assure a quality standard of care.
- The mother can be assured the person counseling her in breastfeeding is a certified professional who has undergone a rigorous education and testing procedure, and who is required to keep her knowledge current through periodic recertification.

*We welcome your comments, and seek your support. Please contact the IBLCE office, or a member of our Board of Directors:*

Barbara Ash, IBLCE Office  
703-560-7330 [barbaraash@iblce.org](mailto:barbaraash@iblce.org)  
Egongdu Onuoha, WIC/ Board Member  
718-250-8012 [emo9004@nyp.org](mailto:emo9004@nyp.org)

Claire Dalidowitz, ADA/Board Member  
860-545-8796 [Cdalido@ccmckids.org](mailto:Cdalido@ccmckids.org)

## THE GOLD STANDARD: International Board Certified Lactation Consultant (IBCLC)

This credential is validated by post-secondary education, 2500-4000 breastfeeding practice consultancy hours, 45 hours in basic lactation education, and background coursework in health professional topics including anatomy and physiology, sociology, psychology, child development, nutrition, and medical terminology in addition to passing an independent examination developed by subject matter experts.

The IBLCE administers the voluntary certification program and develops the examination based on Disciplines and Chronological periods established by a panel of experts and substantiated by periodic Role Delineation Studies. To maintain accreditation, an IBCLC must recertify through continuing education and/or reexamination every 5 years.

The IBCLC credential assures the public that the IBCLC is a member of the health care team who can provide substantive breastfeeding assistance and skilled technical management of breastfeeding problems.

<b>Lactation Nurse</b>	<b>Lactation Consultant (LC)</b>	<b>Certified Lactation Consultant/Counselor (CLC)</b>	<b>Certified Lactation/Breastfeeding Educator (CLE, CBE)</b>
An LPN, RN, BSN or other nursing professional who may have limited education, training and/or personal experience in breastfeeding. No specific training or education is required.	Any person who self-declares a level of proficiency in assisting mothers and babies with lactation issues. Using this generic term requires no specific training or education.	This person has generally completed approximately 18-40 hour workshop, sometimes with follow-up or recertification options. This type of training includes introductory lactation management and might also include practice in counseling and role play. Upon completion, a certificate is awarded, but the individual is not a board-certified lactation consultant.	The CLE/CBE usually completes an 18-20 hour workshop, covering basic lactation management and introductory counseling techniques. It is considered the "starting point" for training breastfeeding counseling, but is also equated to the CLC by many individuals.

# Interpreting the Research Lactation, Obesity and Diabetes

Maureen A. Murtaugh, PhD, RD  
Teresa Jacobs, MPH

**INTRODUCTION:** According to the position statement of the American Dietetic Association, breastfeeding is the recommended form of infant feeding for at least the first year of life, and longer if the mother and child desire<sup>1</sup>. The child benefits include nutritional superiority of human milk, lower rates of acute infection, protection from asthma and other chronic diseases, and better cognitive scores compared to infants not fed human milk. Maternal benefits include uterine contractions to reduce postpartum blood loss, delay of ovulation, and increased maternal self-confidence and infant bonding. In addition, women who become pregnant at a younger age<sup>1</sup> and those who breastfeed for longer durations<sup>1,2</sup> have lower risk of premenopausal breast and ovarian cancer. These and other potential benefits of breastfeeding are of continuing interest to the public, researchers, and the healthcare workforce. Furthermore, as the prevalence of obesity and diabetes increases, the effects of breastfeeding on maternal and infant risks of obesity and diabetes become specific concerns.

## Breastfeeding and Weight Loss

Given the fact that weight is an independent risk factor in the development of diabetes mellitus, weight control may play a role in the prevention of maternal diabetes mellitus, particularly gestational diabetes. But, does breastfeeding increase postpartum weight loss? In theory, the answer is “yes, lactation should promote maternal weight loss.” The DRIs for normal weight lactating women assume the energy spent for milk production is 500 calories per day in the first six months and 400 calories afterwards<sup>3</sup>. The 2002 DRI is 330 additional calories with 0.8 kg per month weight loss (170 calories per day) per day for the first six months and 400 calories per day afterwards. It is important to recognize that public health policy supports estimating the energy and nutrient needs of breastfeeding women conservatively to ensure adequate nutrition for women and their children. An overestimation of energy needs is possible using this approach. Nonetheless, physiological mechanisms favoring the use of maternal fat stores and delivery of nutrients to the breast during lactation should also support maternal weight loss during lactation<sup>4</sup>. However, the average postpartum weight change among women is relatively small and inconsistent<sup>5</sup>. Additionally, it is somewhat surprising that the changes in weight in breastfeeding women are

generally smaller in developing countries (-0.2 lb/month) than in developed countries (-1.8 lbs/month). It seems likely changes in energy intake, expenditure and fat mobilization easily meet the needs of milk production and the resulting changes in weight are small.

The effects of maternal dieting for weight loss on milk production are not well studied. Small sample sizes (< 25 participants) and lack of randomization limit use of the few studies conducted which seem to indicate consumption of at least 1500 kcal or by 77% of estimated caloric need is necessary to maintain milk production<sup>6,7</sup>. Restricting kilocalorie intake for less than a week is unlikely to influence milk production in women who are otherwise well nourished, however, intake of less than 1500 kcal for a week has been associated with a reduction of milk production the week following the restricted diet<sup>7</sup>. These findings support a clinical approach of moderate restriction in energy intake to support gradual postpartum weight loss to pre-pregnancy weight or other healthy weight goal.

*“Up until the early 1980’s maternal diabetes was considered a contraindication to breastfeeding”*

Studies addressing the effect of increasing physical activity or energy expenditure on maternal weight changes and lactation are scarce. In a cross-sectional study women who engaged in vigorous activity also increased their energy intake such that their calorie deficit was similar to sedentary women. Lactation performance was similar between the control and exercising groups<sup>8</sup>. Similarly, a 12-week postpartum randomized exercise intervention for exclusively breastfeeding women showed an increase in intake to compensate for the 400 kcal/day used while exercising five days per week in the intervention. Maternal weight change, milk volume, milk composition and infant weight gain were similar between the exercising and sedentary groups<sup>9</sup>.

Thus the available evidence, although limited, suggests lactating women are efficient at balancing their intake and expenditure. Although women can reduce intake to lose weight, a decrease in energy expenditure alone might not be effective in influencing maternal weight loss. A combination approach of modest energy restriction and increased physical activity is most effective in supporting

*(continued on page 11)*



# A Brief History of WHRN (And Its Incarnations)

Miri Rotkowitz, MA, RD

In celebration of WHRN's tenth anniversary, we wanted to pay tribute to the DPG's past chairs. The plan was to run inspiring anecdotes about the challenges and rewards of running the practice group. But what emerged as we interviewed these women was an insider's view of WHRN's inception and evolution, and it proved a story far too good not to share—and a far better tribute to the efforts of our chairs than we'd planned.

It's a classic trick of relativity: depending on one's perspective, ten years can seem like a tremendous amount of time, or very little. In the case of WHRN, those years have been packed so dense with activity—from securing the petition signatures necessary launch to the group, to establishing a presence at the ADA national conferences—it's perhaps no surprise that time seems to have flown. Asked to reflect on the DPG, Dr. Judith Brown, who chaired the group in 1998, simply exclaimed, "Wow! We're 10?!!"

Those who were around when WHRN was merely a twinkle in the eye of her founders can't help but feel that "my-how-she's-grown" sentiment. But it's an equally striking notion to consider that it took 78 years, in a field historically dominated by women (the American Dietetic Association was established in 1917), before a women's health focused dietetic practice group existed at all.

Dr. Erica Gunderson (chair, 1995) keenly felt the omission. It was the early 1990's and a significant body of research on folic acid supplementation and pregnancy outcomes was emerging. The scientific community was turning long-overdue attention both to women's health issues and to the influence of nutrition on health. As the ADA responded with new position statements, they called on Gunderson, with her combined public health background and clinical expertise in perinatal nutrition and high-risk pregnancies, to help review them. But as Gunderson noted, no DPG—or any group for that matter—truly and comprehensively addressed women's reproductive health issues from a nutrition perspective,

or considered the mother-infant dyad as a whole. "The Pediatric DPG dealt with lactation, but did nothing on preconceptional nutrition. The Diabetes DPG addressed gestational diabetes, but they didn't know the pregnancy part of it. WIC is big in the US...but they deal with a very specific population, and they don't do therapeutic nutrition. Then we had the March of Dimes co-opting [nutrition issues in reproductive health]" but they're not actually a nutrition organization.

Gunderson had other concerns as well. Women seeing private doctors weren't getting the guidance they needed, and dietitians lacked a central resource for gleaning that information. Many WIC dietitians felt

disenfranchised by the ADA, which at the time, didn't place a great focus on maternal and infant nutrition. RDs whose expertise lay in perinatal nutrition needed a network of like-minded professionals. And a DPG, in turn, would provide a valuable resource to the ADA, which would have a group of specialists in reproductive nutrition at hand.

So, together with Lynn Lyons (1996) and Gretchen Flanagan, Gunderson wrote the proposal for the DPG's petition and later drafted the DPG bylaws. Alyce Thomas (2002) was also "involved with the practice group from the beginning. When the first two chairs met in Anaheim in 1993, I agreed to be the East Coast person" who would promote the fledgling practice group and help gather the signatures required by the ADA for its establishment. Cathy Fagen (2002) proudly recalls, "I was one of those original signatures." Fagen had networked with Gunderson in the past, and knew of her "dream of starting a specialty practice group to assist all RDs working in obstetrics and/or neonatology." In 1994,

## PAST-CHAIR WISH LIST FOR WHRN

1. Money, Money, Money
2. Great conflict-of-interest free sponsorship (see number 1)
3. An expanded newsletter
4. A WHRN-sponsored midyear conference
5. Increase visibility—on a national scale
6. More members (lots more)
7. Greater member involvement

WHRN  
Lessons  
Learned

1. Find  
your niche

2. Know your Focus  
3. Network

4. Get  
Involved 5. Stay cur.

the Perinatal Nutrition DPG was officially voted into existence; the group boasted a membership of 595 in its first year alone.

Maureen Murtaugh (1997) met Lyons and Gunderson at the ADA meeting meant to drum up interest in the DPG-to-be, and became another of the original petition signers. Three years later, she was chairing the practice group. Murtaugh's goal "to increase visibility and membership," was challenging, she says, because "the DPG was still new and had little money to do projects." At the same time, there was a "strong desire to stay pure and not accept money from formula companies." (Soon after its establishment, a formula company offered to underwrite the DPG's activities, which the group rejected.) While the DPG has never had the "luxury of big money," Gunderson applauds the DPG for maintaining the no-formula funding stance.

As for Murtaugh, she feels her biggest accomplishment "was just keeping things going through the young years of the DPG." She's a firm believer that "being involved in a DPG is a great way to learn and advance your career—at any stage." But beyond the professional perks, Murtaugh's greatest reward was "getting to know wonderful women all over the country"—a sentiment constantly echoed by past chairs and DPG members alike.

Cathy Fagen (2000) worked her way up the ranks in the DPG from newsletter editor to treasurer, and eventually to chair (and back to secretary again in 2004!). By the time she was at the helm of the DPG, it had changed its name—and expanded its scope—to the Women and Reproductive Nutrition DPG. Concerned with improving communications both between

members and the volunteers who helped run the group, Fagen developed job descriptions with a line of command, and had volunteers develop position notebooks detailing their duties. She developed a listserv to boost member involvement, and helped make the WHRN display available to members for exhibition at local ADA meetings. Also on the DPG's agenda during Fagen's tenure was "trying to get ADA to recognize the importance of promoting breast milk on the FNCE exhibit floor to balance the formula representation."

The DPG remains dedicated to reproductive nutrition therapy, but has also responded to new research and the growing interest in women's health issues outside of pregnancy and lactation. During the Philadelphia FNCE conference, Alyce Thomas (2002) relates that during the course of a five-hour meeting, the idea to add the word "health" to the DPG's title was put forth. "I don't know how it came up, but since we were looking at women's issues, we said 'Why not?'...[and there was] not one 'Nay.'" After defending the change to ADA, the renamed Women's Health and Reproductive Nutrition DPG "took on a new life. The change only generated more interest...We have the potential to just zoom!" says Thomas, who'd love to see the DPG offer a midyear conference, and secure more sponsorship. "One of these days, I hope to see Women's Health become the largest DPG."

We hope you'll join us in sending heartfelt thanks to all of our past-chairs, including 2004 chair Darlene Husch, and in wishing Chair-Elect Theresa Romano an exciting, productive year.

## WOMEN LEADERS OF WHRN

- 1995**  
Erica Gunderson, PhD MPH RD
- 1996**  
Lynne Lyons, MPH RD CDE
- 1997**  
Maureen Murtagh, PhD RD
- 1998**  
Judith Brown, PhD RD
- 1999**  
Claire Dalidowitz, MS MA RD CDN
- 2000**  
Cathy Fagen, MA RD
- 2001**  
Yolanda Gutierrez, PhD RD
- 2002**  
Alyce Thomas, RD CDN
- 2003**  
Barbara Luke, MPH RD
- 2004**  
Darlene Husch, MA RD CDE
- 2005**  
Theresa Romano, RD
- 2006**  
Will it be you?

6. Respond and Adapt  
7. Cultivate Integrity  
8. Think Creatively  
9. Challenge yourself  
10. HAVE FUN!

# Women's Health Report Card Results: How Do We Care for OURSELVES?

Kathy Scalzo, MA, RD

The WHRN member reception in Anaheim, CA won the prize for the most unique and most interactive of the DPG receptions! Past chair, Barbara Luke, coordinated the event, including the creation of a special report card to get WHRN members thinking of their personal health care behaviors. Here are some of the results (anonymously, as promised) of the 38 members who returned their report card. Even if you weren't able to attend, here are some interesting things to think about.

**Member Demographics.** It appears most of our members are in their 40's - some respondents declined to reveal their age. Evenly split amongst the pre-, peri-, and menopausal stages of life, this small group of women has collectively given birth to 57 children, most of whom were breast-fed. (Note: at least 2 males completed the survey; one took credit for two of the deliveries!)

**Diet Habits.** Thankfully, as a group, we must really believe breakfast is the most important meal of the day; 88% eat it on a daily basis. However, only 16% consumed the minimum of 5-A-DAY, let alone the **Women: Strive for 7** campaign ([www.5aday.gov/7aday/women.html](http://www.5aday.gov/7aday/women.html)) or the DASH diet ([www.nhlbi.nih.gov/health/public/heart/hbp/dash/](http://www.nhlbi.nih.gov/health/public/heart/hbp/dash/)), which recommends a minimum of nine servings a day. Let's follow the new dietary guidelines and instruct us to "focus on fruit" and to "vary our vegetables."

Did you celebrate National Folic Acid Awareness Week (<http://www.folicacidinfo.org/campaign/>) in January? In addition to its well-promoted role in the prevention of birth defects, some studies show folic acid may help protect women (and men) from heart disease, cervical and colon cancer and possible breast cancer ([ods.od.nih.gov/factsheets/folate.asp#h7](http://ods.od.nih.gov/factsheets/folate.asp#h7)). But either we are not all aware of the benefits, or we believe we get adequate folate from our diets. In actuality, no major health guidelines recommend daily folic acid supplements in order to prevent disease. On the other hand, according to our results, only 23% of us reported folic acid supplementation.

**Exercise.** Not too surprisingly, not all of us are as active as we should be. Although we almost all took the stairs instead of the elevator, less than half of us (42%) met the recommended 30 minutes per day on most days of the week, as outlined in the Dietary Guidelines.

**Health Check-Ups.** We seem to do be taking excellent care of ourselves as far as our annual check-ups. For your reference, the University of Michigan Health System has a nice list of guidelines women should follow, depending on their age, to stay healthy. Visit them at: [www.med.umich.edu/1libr/wha/wha\\_svrouitiw\\_crs.htm](http://www.med.umich.edu/1libr/wha/wha_svrouitiw_crs.htm).

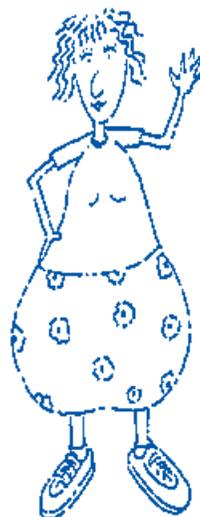
**Body Factors.** We dared to ask two of the most intimate questions you can ask women - what do you weigh and how big are your waist and hips? From the results, it appears being a registered dietitian does not protect us from struggling with our weight.

**BMI.** Over half of us are outside of the desired range for a healthy BMI (see chart for categories and results).

BMI (kg/m <sup>2</sup> )	Weight Status	WHRN Survey Results
Below 15.5	Underweight	8
18.5 - 24.9	Normal	17
25.0 - 29.9	Overweight	9
30.0 and Above	Obese	3

**Waist:Hip Ratio** Almost 40% of our respondents did not answer this question, despite the availability

of tape measures for each attendee. Eight (8) of the remaining 24 respondents had a waist:hip measurement greater than 0.8, indicating an increased risk of insulin resistance, heart disease, and diabetes. The rest of our brave respondees (66%) were fortunate to fall in the lower risk category; their measurements indicate their pear shaped body (see photo) provides a protective factor against chronic disease.



WHRN thanks the **USA Rice Federation** for their generous sponsorship of our 10 year anniversary celebratory reception.

We also gratefully acknowledge donations for our goodie bags and baskets by:

- American Heart Association
- Cadbury-Schwepps
- California Cling Peach Association
- Celestial Seasonings
- Egglund's Best
- National Dairy Council
- Nature Made Vitamins

(continued from page 7)

postpartum weight loss without compromising a woman's ability to produce enough milk to nourish her infant.

### **Risk of child and adult obesity associated with breastfeeding**

Several studies have produced mixed results of the effect of breastfeeding on later obesity. Breastfeeding was associated with a protective anti-obesity effect related to the duration of breastfeeding<sup>10</sup>, however, the magnitude of protection offered was low compared to genetic, ethnic, socioeconomic and behavioral factors. A longer duration of breastfeeding was also associated with lower prevalence of obesity among 5-6 year old Bavarian children even after adjustment for socioeconomic status, parental education, household structure, smoking during pregnancy, birth weight, early feeding habits and childhood diet<sup>11</sup>. In a study of 5-6 year old Americans, infants who were breastfed were leaner in the first year of life, but there was no difference in growth thereafter. Authors suggest focusing on physical inactivity and unhealthy childhood dietary patterns to explain the increasing prevalence of obesity in American children, while continuing to recommend breastfeeding for its other health benefits<sup>12</sup>.

It is plausible that biological activity of hormones and other proteins in human milk can participate in the programming, or setting, of metabolism during early life. Although the literature does not indicate a strong link between human milk substitutes and an increased risk of obesity, it is attractive to hypothesize that breastfeeding will protect a child from obesity. Study of the relationship of breastfeeding to obesity in childhood is difficult because feeding choice is dependent on factors that may also influence a

child's environment and the child's risk of obesity. In addition, there are many factors relating to obesity, which make it difficult to control for all of them and assure that the remaining changes in risk are related to human milk feeding.

### **Breastfeeding in women with pregestational and gestational diabetes**

Up until the early 1980's, maternal diabetes was considered a contraindication to breastfeeding. An inability to make adequate milk was often cited as a caution against breastfeeding. This advice was based on evidence of increased morbidity and mortality among infants of women with diabetes, although the mechanisms explaining this relationship were unclear, and the knowledge that insulin is necessary for milk production in animals. However, improvement in care of diabetes and 'normalization' of diabetic pregnancies (primarily type 1) made breastfeeding possible. Currently, clinicians recommend breastfeeding for women with both pregestational and gestational diabetes<sup>13</sup>. Despite these advances research illustrates a number of continuing concerns for breastfeeding women with diabetes and makes clear the need for improved policy and practice.

Women with type1 diabetes are able to establish lactation,<sup>14,15</sup> regardless of a number of barriers to success. Major barriers include postpartum separation from their infants; delays between delivery and first breastfeeding; lower frequency of feeding; greater use of human milk substitute feedings; and a high rate of cesarean section. Baby-friendly hospital policies are needed to assist women in establishing a good milk supply and avoiding engorgement as

well as reducing the use of human milk substitutes<sup>16</sup>. In addition, clinicians must recognize the need to provide appropriate nutrition counseling so mothers with type 1 diabetes will not be discouraged by problems with breastfeeding. Women with hyperglycemia may be at increased risk for infections, including mastitis, furthering the need for tight glucose control. All women should be encouraged to feed

from alternate breasts, avoid soap and alcohol on breasts, let breasts air dry and learn the correct positioning of their infant at the breast to reduce the risk of mastitis and other problems during breastfeeding<sup>16</sup>.

**Is YOUR Hospital BABY FRIENDLY?**

*Check out the list of baby friendly hospitals in the United States.*  
[www.babyfriendlyusa.org/eng/03.html](http://www.babyfriendlyusa.org/eng/03.html)

*If your hospital isn't on the list, be sure to read 10 Steps to Successful Breastfeeding.*  
[www.babyfriendlyusa.org/eng/10steps.html](http://www.babyfriendlyusa.org/eng/10steps.html)

Studies on the effect of breastfeeding on insulin needs for women with type 1 diabetes and blood glucose levels are not consistent. In one study, women with diabetes who breastfed had lower blood sugar levels and needed less insulin than diabetic women who fed their infant human milk substitutes<sup>15</sup>. However, another study reported increased blood sugars with similar doses of insulin<sup>17</sup>. Comparisons made between pre-pregnancy insulin needs and postpartum insulin needs are meaningless if the level of glycemic control achieved pre-pregnancy and postpartum are not similar. Clinician concern for postpartum hypoglycemia may have contributed to higher blood sugar and lower insulin doses in a Connecticut study where researchers found fasting and postprandial hyperglycemia<sup>17</sup>. The clinical aim should be to achieve appropriate glycemic control with a low risk of hypoglycemia, regardless of whether or not a women with type 1 diabetes breastfeeds.

Low dietary (continued on page 12)

(continued from page 11)

intake is an additional factor that may contribute to lactation difficulty in women with type1 diabetes. Women with type1 diabetes who successfully nursed their infant consumed 31 kcal/kg and those who were not successful consumed only 25 kcal/kg,<sup>15</sup> in comparison to 38 kcal/kg in women without diabetes during the first six weeks of lactation<sup>17</sup>. Frequent monitoring of blood glucose levels, snacking before or during a breastfeeding session or a nap, and frequent adjustments of insulin doses are recommended by practitioners to prepare pregnant women with diabetes for breastfeeding. Clearly, the balance of insulin, dietary intake, and activity must be carefully monitored and adjusted to achieve glycemic control to ensure lactation success in women with type1 diabetes without increasing the risk of hypoglycemia. The clinical goals and methods to achieve these goals must be tailored to the individual.

As previously stated, breastfeeding is also recommended for women who experience gestational diabetes. It is believed the reduction of insulin needs during lactation might be a metabolic advantage. Appropriate lactation support, education and postpartum medical monitoring of the maternal metabolic profile are needed.

### **Does breastfeeding prevent obesity and type1 diabetes in infants?**

Women with well-controlled diabetes seem to produce milk remarkably similar to those women without diabetes<sup>11</sup>. While glucose levels may be higher in their breast milk, it is present in small amounts and does not seem to significantly alter the energy density of the milk. However, a group of German researchers recently reported infants who consumed their own diabetic mothers milk were 2.5 times more likely to be overweight and develop impaired glucose tolerance at two years of age than infants born to women with diabetes but who were fed donor human milk<sup>18</sup>. The risk of overweight increased with an increase in the amount of milk the infants received from their mothers with diabetes. This increased risk of overweight among offspring of women with diabetes demonstrates the need for continued study of the influence of maternal disease on milk composition and subsequent infant health.

In the 1980's it was hypothesized a lack of breastfeeding, or exposure to cow's milk based human milk substitutes, could predispose a child to type 1 diabetes. Studies show a consistent relationship between cow's milk consumption and the prevalence (number of cases) of type 1 diabetes both within a country and between countries, but the relationship relates to milk consumption at any age, not just in infancy or childhood<sup>19</sup>. Most study of this topic is retrospective, but two meta-analyses suggest a lack of breastfeeding

## **Cast Your Vote!**

This year WHRN DPG will conduct its election of officers online. Please exercise your right to vote to select your future WHRN DPG leaders.



The online polls will open Jan. 25 and will close Feb. 25, 2005. Visit [www.whrndpg.org](http://www.whrndpg.org) to view candidate bios and to cast your vote online.

Paper ballots are available upon request by contacting the Practice Team at [practice@eatright.org](mailto:practice@eatright.org) or 800/877-1600 ext. 4815. Paper ballots must be postmarked by or faxed by Feb. 20, 2005.

Your vote is appreciated!

provides a small increase in the risk of type1 diabetes, possibly explained by the bias inherent in retrospective study or differences between breastfeeding and human milk substitute feeding groups. Three prospective studies investigating the relationship of infant feeding patterns to islet cell autoimmunity have failed to find an increase in risk of diabetes by feeding method in infants with family histories of diabetes. The common presence of cow's milk protein in human milk might be one of the reasons it may be difficult to establish a relationship between infant feeding and the development of type1 diabetes.

Harrison and Honeyman<sup>19</sup> propose human milk may still influence the development of type1 diabetes, but not through exposure to cow's milk per se. They propose alteration of mucosal immune activity may reduce diabetes incidence through exposure of the mucosa to insulin in human milk. The exposure induces regulatory T-cells that protect against diabetes. Failure to expose the infant to insulin in human milk may be the mechanism for increased risk of diabetes in infants fed human milk substitutes. Therefore, further study of the relationship of mucosal immune function and development of diabetes might be revealing.

### **Summary**

The relationship between breastfeeding and maternal and child disease is complex. Biological activity of human milk has only recently been appreciated, adding additional intricacies to the relationship of infant feeding and infant development. The evidence regarding maternal postpartum weight loss, the relationship of being breastfeeding to the risk of type 1 diabetes and obesity, and the influence of lactation on maternal diabetic control is inconsistent. We are fascinated by the exploration of these relationships and believe further

study could serve to deepen our understanding of the risks and benefits associated with breastfeeding on maternal and infant health. However, as lactation research advances, it is our hope that greater consideration will be given to the safety and suitability of human milk substitutes before their use.

1. Byers T, Graham S, Rzepka T, Marshall J. Lactation and breast cancer. Evidence for a negative association in premenopausal women. *Am J Epidemiol.* 1985; 121: 664-674.

2. Ursin G, Bernstein L, Wang Y, Lord SJ, Deapen D, Liff JM, Norman SA, Weiss LK, Daling JR, Marchbanks PA, Malone KE, Folger SG, McDonald JA, Burkman RT, Simon MS, Strom BL, Spirtas R. Reproductive factors and risk of breast carcinoma in a study of white and African-American women. *Cancer.* 2004;101:353-362.

3. Food and Nutrition Board Institute of Medicine (2002) Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids (Macronutrients). National Academies Press, Washington, DC.

4. Murtaugh MSC, Sofka D. (2004) Nutrition During Lactation. In: Nutrition Through the Life Cycle (Brown, J., ed.), pp. 135-167. Wadsworth/Thomson Learning., Belmont, CA.

5. Butte NF, Hopkinson JM. Body composition changes during lactation are highly variable among women. *J Nutr.* 1998; 128:381S-385S.

6. Dusdieker LB, Hemingway DL, Stumbo PJ. Is milk production impaired by dieting during lactation? *Am J Clin Nutr.* 1994; 59: 833-840.

7. Strode MA, Dewey KG, Lonnerdal B. Effects of short-term caloric restriction on lactational performance of well-nourished women. *Acta Paediatr Scand.* 1986; 75: 222-229.

8. Lovelady CA, Lonnerdal B, Dewey KG. Lactation performance of exercising women. *Am J Clin Nutr.* 1990; 52:103-109.

9. Dewey KG, Lovelady CA, Nommsen-Rivers LA, McCrory MA, Lonnerdal, B. A randomized study of the effects of aerobic exercise by lactating women on breast-milk volume and composition. *N Engl J Med.* 1994; 330:449-453.

10. Kramer, MS. Do breast-feeding and delayed introduction of solid foods protect against subsequent obesity? *J Pediatr.* 1981; 98:883-887.

11. von Kries R, Koletzko B, Sauerwald T, von Mutius E, Barnert D, Grunert V, von Voss H. Breast feeding and obesity: cross sectional study. *BMJ.* 1999; 319:147-150.

(continued on page 15)

## Ross Award in Women's Health

### Nominate yourself or a friend!

This award recognizes dietitians who make significant contributions to the importance of nutrition in women's health in the areas of research, education or service. \$1,000\* will be awarded.

The award will be given to a practitioner who is an ADA member and has worked in collaboration with others outside the profession of dietetics and in women's health to promote the role of nutrition.

Applicants must prepare a 1-3 page summary of their qualifications including details about the nominee's contributions to women's health and his or her level and degree of collaboration with others.

**Deadline is March 1, 2005.** Applications are available online at: [http://www.eatright.org/Member/ProfessionalDevelopment/76\\_8143.cfm](http://www.eatright.org/Member/ProfessionalDevelopment/76_8143.cfm)

\*Amount of award is determined by investment return of the fund endowment.

## An Update from your ADA Professional Issues Delegate

By Phyllis Bowen, PhD, RD

As a result of the 2004 Fall ADA House of Delegates (HOD) meeting in Anaheim, CA, two motions were developed for the delegates to consider and vote on electronically.

### **Motion 1: Generational Diversity** Status: Approved

This motion requested the ADA Executive Team to review the results of the HOD discussion on generational diversity (Matures, Baby Boomers, Gen X-ers and Gen Y's) to consider implications for current and future Association programs of work. In addition, a report from the Executive Team was requested and will be submitted to the ADA Board of Directors and HOD in the spring of 2005.

### **Motion 2: Scope of Dietetics Practice Framework** Status: Approved

This motion requested the House to approve the draft Scope of Dietetics Practice Framework presented by the joint Board and House Practice Definitions Task Force. The purpose of this document is to assist dietetics professionals in making decisions about the appropriate levels of safe and effective practice. It should also serve as a guide to practitioners, employers, and others. A summary of this document will be published in the Journal of the American Dietetic Association in Spring, 2005 and will be available on the ADA Web site as well.

**In Progress:** As a result of a dialogue on HOD Communications, an implementation plan to enhance communications among delegates and members was developed. A follow-up discussion on the outcome of this plan will be conducted during the Spring 2005 HOD Meeting (April 30-May 1, 2005) in Chicago. Watch for more details related to the meeting.

Continued from page 4 not require an acidic stomach environment and is easily absorbed. However, the constipating side effect of calcium carbonate may be appropriate for clients suffering from protease inhibitor induced diarrhea<sup>10</sup> ; it should be taken with food to enhance absorption.

In addition to dietary recommendations, encouraging moderate weight bearing or resistance activity to preserve bone mass and to maintain and/or to increase muscle mass is recommended. Counseling to reduce modifiable risks such as smoking, excessive alcohol and caffeine consumption should also be emphasized.

**Dyslipidemia** Abnormalities in blood lipids including elevated total cholesterol, low-density lipoprotein and serum triglycerides are common among HIV positive women. It is hypothesized the HIV virus itself may cause these irregularities, or they may arise as a result of highly active antiretroviral therapy (HAART), particularly protease inhibitors, used to treat HIV<sup>11</sup>. While the etiology remains unclear, the resulting hyperlipidemia increases risk of cardiovascular morbidity and mortality and needs to be treated aggressively.

The National Cholesterol Education Program (NCEP) guidelines,<sup>12</sup> used to evaluate cardiovascular risk and to determine initiation of appropriate treatment in the general population, are recommended for use with HIV infected individuals<sup>13</sup>. Diet and lifestyle interventions, as outlined by the Therapeutic Lifestyle Changes (TLC) diet (See Table), are the primary approaches to treatment guidelines. Avoiding additional medication is optimal for those who may be already facing a high pill burden.

Modifications to the TLC diet may be necessary according to an individual's needs. Nutrition professionals need to manage the macronutrient breakdown percentages and educate their clients on the best choices to optimize their health. For women with HIV, this balance is especially important to insure adequate calories, while not exacerbating existing issues. For example, limiting total fat may cause a client to consume more simple carbohydrates, which may in turn worsen hypertriglyceridemia. Additionally, weight maintenance/avoiding weight loss is an issue for those individuals who are at a healthy weight or who are underweight.

As for HIV negative women, an emphasis on monounsaturated and polyunsaturated fats, lean sources of protein and complex carbohydrates, is recommended. Foods high in omega-3 fatty acids such as fatty fish, flax seeds/oil, and walnuts, should be encouraged, with a

Therapeutic Lifestyle Changes Diet <sup>12</sup>	
Nutrient	Recommended Intake
Saturated fat*	Less than 7% of total calories
Polyunsaturated fat	Up to 10% of total calories
Monounsaturated fat	Up to 20% of total calories
Total fat	25-35% of total calories
Carbohydrate†	50-60% of total calories
Fiber	20-30 g/day
Protein	Approximately 15% of total calories
Cholesterol	Less than 200 mg/d
Total calories‡	Balance energy intake and expenditure to maintain desirable body weight/prevent weight gain

\* Trans fatty acids are another LDL raising fat that should be kept at a low intake.† Carbohydrates should be derived predominately from foods rich in complex carbohydrates including grains, especially whole grains, fruits and vegetables.‡ Daily energy expenditure should include at least moderate physical activity (contributing approximately 200 Kcal per day).

supplement of 3 gm/d for those with severe hypertriglyceridemia<sup>13</sup>.

Choosing complex carbohydrates rather than simple carbohydrates and avoiding alcohol are important considerations to emphasize with clients. However, for HIV positive women, it may be necessary to balance the amount or type of fiber with current medical issues or medication side effects, such as diarrhea and constipation.

**Body Habitus Changes** Along with changes in blood lipids, maldistribution of body fat is also frequently seen in HIV positive women. While the exact mechanism of abnormal fat distribution is unknown, it has been related to protease inhibitor therapy, although not all individuals with this condition are on such therapy<sup>14</sup>. Redistribution of body fat may occur without change in body weight and is depicted by some or all of the following: peripheral and facial loss of fat, central fat deposition, increase in the size of the dorsocervical fat pad (buffalo hump) and breast enlargement. In the HIV negative population, abdominal obesity has been associated with cardiovascular disease, stroke, premature death and diabetes mellitus<sup>15</sup>. Extrapolating these risks onto the HIV positive population, routine monitoring and aggressive treatment is appropriate. Furthermore, such changes affect self-esteem and can be emotionally stressful.

Appropriate anthropometric measurements for nutrition professionals to use in monitoring body habitus changes are waist-to-hip ratio, breast size, and mid-arm and mid-thigh circumference<sup>16</sup>. While patient

weight and bioelectrical impedance analysis (BIA) are important components of nutrition intervention, their value is limited in monitoring the redistribution of body fat. Scale weight may remain stable under these circumstances and BIA testing cannot determine the location of body fat. Monitoring these parameters every 4-6 months can help evaluate a client and to guide treatment options.

As with dyslipidemia, diet and exercise are the cornerstones of treatment. The previously discussed TLC diet is recommended to help manage fat redistribution. Physical activity combining progressive resistance exercise with a cardiovascular component has also shown promise in improving body composition<sup>17</sup>. Additionally, exercise may help to improve self-esteem and therefore provide psychological benefit.

## Conclusion

With the shift in populations affected by HIV/AIDS in the United States, the demand for nutrition services for women living with HIV/AIDS is on the rise. In working with HIV positive women, nutrition professionals should emphasize many of the same principles they do with HIV negative women: consuming a varied heart-healthy diet, obtaining adequate calcium and vitamin D and exercising consistently. Other considerations for individual counseling include symptom and risk factor management, quality of life improvement and the prevention of food and water borne illnesses.

## References

- Centers for Disease Control Division of HIV/AIDS Prevention. HIV/AIDS update: a glance at the HIV epidemic. Available at: [www.cdc.gov/hiv/pubs/facts.htm#surveillance](http://www.cdc.gov/hiv/pubs/facts.htm#surveillance). Accessed December 28, 2004.
- Centers for Disease Control Morbidity and Mortality Weekly Report. 1993 revised classification system for HIV infection and expanded surveillance case definition for AIDS among adolescents and adults. Available at: [www.cdc.gov/mmwr/preview/mmwrhtml/00018871.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/00018871.htm) Accessed December 28, 2004.
- Centers for Disease Control and Prevention. *HIV/AIDS Surveillance*

### (Lactation References Continued from page 13)

- Hediger ML, Overpeck MD, Ruan WJ, Troendle JF. Early infant feeding and growth status of US-born infants and children aged 4-71 mo: analyses from the third National Health and Nutrition Examination Survey, 1988-1994. *Am J Clin Nutr*. 2000; 72:159-167.
- Lawrence RA, Lawrence RM. (1999) Breastfeeding: A guide for the medical professional., 5th ed. Mosby, Minneapolis.
- Ferris AM, Neubauer SH, Bendel RB, Green KW, Ingardia CJ, Reece EA. Perinatal lactation protocol and outcome in mothers with and without insulin-dependent diabetes mellitus. *Am J Clin Nutr*. 1993; 58:43-48.
- Ferris AM, Dalidowitz CK, Ingardia CM, Reece EA, Fumia FD, Jensen RG, Allen LH. Lactation outcome in insulin-dependent diabetic women. *J Am Diet Assoc*. 1988; 88: 317-322.
- Anonymous. Preparing pregnant women with diabetes for special breastfeeding challenges. *J Am Diet Assoc*. 1988; 98:648.
- Murtaugh MA, Ferris AM, Capacchione CM, Reece EA. Energy intake and glycemia in lactating women with type 1 diabetes. *J Am Diet Assoc*. 1998; 98:642-648.
- Plagemann A, Harder T, Franke K, Kohlhoff R. Long-term impact of neonatal breast-feeding on body weight and glucose tolerance in children of diabetic mothers. *Diabetes Care*. 2002; 25:16-22.
- Harrison LC, Honeyman MC. Cow's milk and type 1 diabetes: the real debate is about mucosal immune function. *Diabetes*. 1999; 48: 501-1507.

Report 2000; 11(2): 1-44.

- Centers for Disease Control Division of HIV/AIDS Prevention. HIV/AIDS among US women. Available at: [www.cdc.gov/hiv/pubs/facts/women.htm](http://www.cdc.gov/hiv/pubs/facts/women.htm). Accessed December 28, 2004.
- Position of the American Dietetic Association and Dietitians of Canada: Nutrition intervention in the care of persons with human immunodeficiency virus infection. *J Am Diet Assoc*. 2004; 104:1425-1441.
- State of New York Department of Health; *Eating Well for Good Health: A booklet for people with HIV*; Channing Bete Company; South Deerfield, MA; 2003.
- Dolan SE, Huang JS, Killilea KM, Sullivan MP, Aliabadi N, Grinspoon SA. Reduced bone density in HIV- infected women. *AIDS*. 2004; 18 (3):475-83.
- Huang JS, Wilkie SJ, Sullivan MP, Grinspoon S. Reduced bone density in androgen-deficient women with acquired immune deficiency syndrome wasting. *J Clin Endocrinol Metab*. 2001; 86(8): 3533-3539.
- Mondy K, Tebas P. Emerging bone problems in patients infected with human immunodeficiency virus. *Clin Infect Dis*. 2003; 36(Suppl 2):S101-105.
- Turner MJ, Angel JB, Woodend K, Giguere P. The efficacy of calcium carbonate in the treatment of protease inhibitor-induced persistent diarrhea in HIV-infected patients. *HIV Clin Trials*. 2004; 5(1):19-24.
- Carr A, Samaras K, Burton S, Law M, Freund J, Chisholm DJ, Cooper, DA. A syndrome of peripheral lipodystrophy, hyperlipidemia and insulin resistance in patients receiving HIV protease inhibitor therapy. *AIDS*. 1998; 12: F51-58.
- National Cholesterol Education Program Third Report of the Expert Panel on Detection, Evaluation and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) Full Report. National Cholesterol Education Program; National Heart, Lung and Blood Institute; and National Institutes of Health. May 2001. Available at: [www.nhlbi.nih.gov/guidelines/cholesterol/atp3\\_rpt.htm](http://www.nhlbi.nih.gov/guidelines/cholesterol/atp3_rpt.htm) .Accessed December 27, 2004.
- Dube M, Fenton M. Lipid abnormalities. *Clin Infect Dis*. 2003; 36 (Suppl 2); S79-83.
- Sattler F. Body habitus changes related to lipodystrophy. *Clin Infect Dis*. 2003; 36 (Suppl 2); S84-90.
- Bjorntorp P. The associations between obesity, adipose tissue distribution and disease. *Acta Med Scand Suppl*. 1988; 723:121-134.
- Wanke C. Epidemiological and clinical aspects of the metabolic complications of HIV infection: the fat redistribution syndrome. *AIDS*. 1999; 13:1287-1293.
- Roubenoff R, Weiss L, McDermott A, Heflin T, Cloutier GJ, Wood M, Gorbach S. A pilot study of exercise training to reduce trunk fat in adults with HIV-associated fat redistribution. *AIDS*. 1999; 13:1373-1375.

**EXECUTIVE COMMITTEE****Chair**

Darlene Husch, MA, RD, CDE  
736 Coolidge Street  
Westfield, NJ 07090  
908/654-7098 H  
darhusch@verizon.net

**Chair-Elect**

Theresa Romano, RD  
52 Walnut Lane  
Hicksville, NY 11801  
516/659-8773  
516/932-7976 Fax  
fooddiva@aol.com

**Past Chair and Industry Relations**

Barbara Luke, ScD, MPH, RD  
Dept. of Epidemiology &  
Public Health  
University of Miami  
School of Medicine  
Highland Professional Bldg. (R-669)  
1801 N.W. 19th Avenue Suite 200H  
Miami, FL 33136  
305/243-5744 W  
305/243-5544 Fax  
bluke@med.miami.edu

**Secretary**

Cathy Fagen, MA, RD  
Perinatal Outreach Education  
Program  
Long Beach Memorial Center  
2801 Atlantic Avenue  
Long Beach, CA 90806  
562/595-7930  
562/989-8679  
cfagen@memorialcare.org

**Treasurer**

Maria Duarte-Gardea, PhD, RD  
Associate Professor  
College of Health Sciences  
University of Texas at El Paso  
1101 N. Campbell St.  
El Paso, TX 79902  
moduarte@utep.edu

**COORDINATORS AND COMMITTEE CHAIRS****Nominating Committee Chair**

Claire K. Dalidowitz MS, MA, RD, CD-N  
Clinical Nutrition Manager  
CT Children's Medical Center  
282 Washington St.  
Hartford, CT 06106  
860/545-8796 W  
cdalido@ccmckids.org

**Nominating Committee****Chair-Elect**

Jeanne Blankenship, MS, RD, CLE  
Bariatric Surgery Nutrition Coordinator  
UC Davis Medical Center  
2315 Stockton Blvd.  
Sacramento, CA 95817  
916/734-7260  
916/734-3951 Fax  
Jeanne.Blankenship@ucdmc.ucdavis.edu

**Awards Chair**

Ursula D Harry, MS, RD, RN, CDE  
1408 Redwood Drive  
Piscataway, NJ 08854  
973/325-3330 W  
ursulah@optonline.net

**FNCE****Coordinator**

Megan Wolfe, MS, RD, CDN  
1240 Westcott St.  
Syracuse, NY 13210  
315/464-7593 W  
315/464-4199 Fax  
mmw11@cornell.edu

**Assistant FNCE Coordinator**  
(open position)**Reimbursement/Legislation Coordinator**  
(open position)**Membership Committee Co-Chairs**

Jamillah Hoy-Rosas, MPH, RD  
718/645-4703 H  
jrh218@nyu.edu

Margarette Williamson, MPH, RD, LD  
109 N. McDonough Street  
Decatur, GA 30030  
404/377-4099 W  
404/377-3364 Fax  
mwrs@earthlink.net

**Web Site and List Serve Coordinator**

Kimberly Slominsky  
100 River Rd. #23  
Bogota, NJ 07603  
551/265-8405  
kimsgateway@aol.com

**Publications Coordinator**

Kathy Scalzo, MA, RD  
718/235-1087 W  
718/235-1291 Fax  
Kscalzo@lij.edu

**Assistant Publications Coordinator**

Miri Rotkowitz, MA, RD  
628 2nd Street, #6  
Brooklyn, NY 11215  
718/768-4449 H  
mcr223@nyu.edu

**Calendar of Events and Member Publications**

Jamillah Hoy-Rosas, MPH, RD  
718/645-4703 H  
jrh218@nyu.edu

**Resource Review**

Lori L. Yenesel, RD  
159 Tanglewood Pass  
Lake Hopatcong, NJ 07849  
Healthrd@optonline.net

**ADA Practice Team Liaison**

Susan DuPraw, MPH, RD, LD  
American Dietetic Association  
120 South Riverside Plaza, Suite 2000  
Chicago, IL 60606-6995  
800/877-1600 ext. 4814 W  
312/899-4812 Fax  
sdupraw@eatright.org

**ADA Professional Issues Delegate**

Phyllis Bowen, PhD, RD  
University of IL (M/C 517)  
Dept. of Human Nutrition and Dietetics  
1919 W Taylor St  
Chicago, IL  
312/996-0410 W  
pbowen@uic.edu

*The American Dietetic Association web site*  
<http://www.eatright.org>

*The Women's Health and Reproductive Nutrition DPG*  
*web site <http://www.whrmdpg.org>*

Cathy Fagen, MA, RD  
11411 Wembley Road  
Rossmoor, CA 90720

PRESORTED  
FIRST CLASS MAIL  
U.S. POSTAGE  
**PAID**  
PERMIT NO. 329  
HICKSVILLE, NY



**Women's Health and Reproductive Nutrition**



A Dietetic Practice Group of  
The American Dietetic Association