

Promoting Healthy Weight in Women: What the Physician Can Do to Help

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Overweight and obesity in women of childbearing age has grown to an epidemic proportion. The latest data from the National Health and Nutrition Examination Survey (NHANES) from 2005-2006 indicate that 24% and 22.3% of non-pregnant women ages 20-29 and 30-39, respectively, are overweight (body mass index (BMI) 25-29.9 kg/m²), and 23.8% and 37.7% are obese (BMI $\geq$ 30 kg/m²).¹ Of further concern is the percentage of women who fall into the more severe obesity classes II and III, 11.4% and 4.4% respectively, a prevalence that has doubled since NHANES III, which was conducted from 1988-1994. Among women who become pregnant, the shift towards higher pregravid weight also appears to be evident. Data from the Pregnancy Risk Assessment Monitoring System (PRAMS) from nine states has shown that from 1993-1994 13% of women self-reported a BMI > 29 compared to 22% from 2002-2003.² Data from North Carolina PRAMS for 2003 indicate that about 26% of women reported a prepregnancy BMI of over 29.³

Overweight and obese women not only have the potential health risks associated with adult overweight and obesity such as cardiovascular disease and diabetes but may also suffer reproductive complications as a result of their weight. Such complications include higher rates of cesarean section,^{4,5} gestational diabetes mellitus (GDM),⁶ preeclampsia,⁷ pregnancy-induced hypertension,⁸ and postpartum anemia.⁹ Of particular interest is the effect of a rapid weight gain. Hedderston and colleagues found a 2.5-fold increased risk for GDM among women who gain 2.3-10.0 kg (5-22 lbs) per year prepregnancy compared to those whose prepregnancy weight remained stable.¹⁰ In a study of temporal changes in weight and risk for adverse pregnancy outcomes, Villamor and Cnattingius found a significant association between interconceptional weight gains of three or more BMI units and risk for GDM (OR 2.09 [95% CI, 1.68-2.61]); preeclampsia (OR 1.78 [95% CI, 1.52-2.08]); and gestational hypertension (OR 1.76

[95% CI, 1.39-2.23]).¹¹ With regards to infant outcomes, pregravid overweight and obesity has been independently associated with macrosomia,¹²⁻¹⁴ certain birth defects,^{15,16} infant mortality^{17,18} and decreased initiation and duration of breastfeeding.^{19,20} It has also been shown that maternal pre-pregnancy weight has an early and persistent effect on childhood overweight status as well as a dynamic effect on the process of overweight development.²¹ Furthermore, a growing literature suggests that early parenting and feeding patterns are risk factors for childhood overweight and obesity. Breastfeeding appears to be protective for obesity, perhaps by reducing the early

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introduction of solids and other fluids, yet many mothers choose not to breastfeed. Controlling feeding styles may interfere with self-regulation of energy intake and overfeeding, while laissez-faire feeding styles may result in the very early introduction of foods that are high in sugar or fat.²² Thus, mothers who are the primary caregivers of the family serve as role models and their feeding and shopping practices have important implications for the lives of their children.

There is well-supported evidence to suggest that overweight and obesity in pregnancy carries increased risks for women during gestation as well as risks for the future health

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of the child, or in public health terms, the health of the next generation. These observations compel us to ask the important question of how and when to intervene to prevent overweight and obesity in order to optimize reproductive and individual health for both the mother and child.

Many secular changes in the last 30 years are linked to increasing obesity rates. Particularly, they are changes that have encouraged an increased intake of energy (food) and/or a decreased expenditure of energy (physical activity). In looking at the food part of this equation, we have seen individual or household changes such as more women working outside of the home, an increase in restaurant meals, and a decreased value on growing and cooking food. Environmentally, we have seen drastic changes in our food system such as larger portion sizes, increased availability and lower costs for poor quality food, and more sophisticated food marketing and advertising for highly processed food products. These and many other powerful external influences have added up over time to create an environment that is not supportive of healthful eating.²³

Overweight women often look to their doctors for weight management advice. Most physicians are aware of the increase in overweight and obesity, recognize it as an important health risk, and have incorporated some initiatives into their practices for addressing overweight in women. Unfortunately, most of these initiatives are unsuccessful. Partly to blame is the current fragmented health care system which does not allow for preventive or continuous care, little to no health insurance reimbursement, and limited time available for weight management counseling. A health care system that supports pre-, inter-, and postconception health²⁴ will likely make it easier to manage weight in women and is an effort worth advocating and supporting.

Start the Healthy Weight Conversation Early

Weight is not often addressed until a patient is quite overweight or obese, even though preventing weight gain or encouraging a 5-10 pound weight loss is much easier than promoting a substantial weight loss. It is possible this discussion is delayed because overweight can be a difficult topic to address with women. Our culture idealizes thin women, and physicians may appear judgmental when addressing healthy weight with overweight women. Patients, in turn, often feel responsible for and/or ashamed of their weight status. Furthermore, an overweight physician may be even more reluctant to start a conversation about healthy weight.

Fortunately, body mass index can be used to objectively discuss the health risks (including reproductive complications) of overweight and obesity in women.^a Sharing the BMI measurement with the patient is an easy introduction to a conversation about healthy weight goals.

Provide Weight Gain Guidance During Pregnancy

More women are entering pregnancy overweight, gaining too much weight during pregnancy, and failing to return to pre-pregnancy weight after delivery. Weight gain guidance is typically not shared with prenatal patients and yet pregnancy can be the beginning of long-term obesity for many women. It is critical to inform women of the recommended weight gain ranges recently updated by the Institute of Medicine of the National Academies (IOM).²⁵ These are 28-40 lbs for underweight women, 25-35 lbs for normal weight women, 15-25 lbs for overweight women, and 11-20 lbs for obese women.²⁵ Informing women in the earliest prenatal care encounter, monitoring weight gain closely and continuing discussions about healthy weight gain into the postpartum period are also recommended by the new IOM report as important implementation guidelines.

Don't Blame the Overweight Patient

Traditional weight management efforts rely on diet and/or exercise prescriptions and the general expectation for patients to be individually responsible for changing current lifestyle habits to affect their weight status. Patients who cannot adhere to this weight gain guidance are often frustrated and ashamed of their lack of willpower and often feel blame for their perceived personal failure. But the rise in obesity coincides with environmental changes that make it difficult for people to maintain a healthy weight, not a decrease in responsibility and the will power capacity of women. Educating patients about the influence of powerful food system changes, such as the overproduction of unhealthy foods, easy access to low cost high calorie food, and advertising messages that influence the purchase of highly processed convenience and snack foods in lieu of simple, whole foods, helps to shift the blame from the individual to the environment—where it belongs. Patients need to learn about the many existing environmental pressures and distorted food values that support unhealthy choices instead of healthy choices. The widely accepted Social-Ecological Model for Levels of Influence suggests more successful behavior change when levels beyond the individual—public policy, community, organizational, and interpersonal—are also addressed.²⁶ Educating and empowering women to challenge the current food system has the potential for positively influencing their food choices.²⁷

Provide Simple and Consistent Messages

The North Carolina Eat Smart, Move More campaign highlights seven healthy behavior strategies derived from the Centers for Disease Control and Prevention. Many of the

a A quick tool for BMI calculation can be found at: http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/english_bmi_calculator/bmi_calculator.html.

strategies are evidenced-based and can be utilized by physicians to provide to patients. They are simple messages such as "Prepare more meals at home," "Right-size your portions," and "Breastfeed your baby." Many overweight patients can easily identify with the strategies and can adopt those most relevant to them. Furthermore, statewide and national efforts to promote the same messages will assist patient weight management efforts by elevating the importance of the messages and enhancing retention of the messages. Information and materials are easily obtained from the Eat Smart, Move More professional and consumer websites.^{28,29} Referral to a dietitian for more extensive nutrition counseling can further tailor messages for patients. Also, adding the recommendation for patients to keep a simple food diary can contribute to two-fold increase in weight loss, as compared to those who don't keep a food diary.³⁰

Use Clinic Space to Promote Healthy Weight

Clinicians and managers should take advantage of patient waiting areas and exam rooms to advertise good health. Remove snack vending machines and add healthy weight posters, magazines, patient education materials, a weight scale and BMI chart, community activity sign-up sheets, local walking maps, and patient surveys about community resources. Clinic workspace areas, visible to patients, free of soda cans and fast food wrappers, also contribute to the physician's image as a powerful healthy role model.

Share the Care and Follow-Up

Obviously, physicians are not solely responsible for healthy weight in women. After assessing weight status and communicating health risk, further education is needed concerning environmental influences, behavior change strategies, and the skills necessary to achieve those strategies. Responsibility can then be shared with or transferred to other health care professionals such as dietitians and/or community organizations. Physicians can identify community resources that promote and support healthy lifestyles and refer patients. Community resource examples include skill-building activities such as cooking classes and gardening opportunities; healthy food availability such as local farmers' market locations and seasonal produce lists; and physical activity opportunities such as local parks and recreation program information and walking or trail maps. Additionally, since women often serve as strong supports for one another, developing or referring to group

health management models may be promising for women interested in losing weight.³¹ Encouraging regular follow-up visits to provide feedback for receptive patients actively engaged in managing their weight is the final step.

As dictated by the socio-ecological model, recommendations are available for promoting environmental change that support individual healthy living such as "Community Strategies and Measurements to Prevent Obesity in the US" from the CDC³² (see Figure 1, page 452) and the *North Carolina Preconception Health Strategic Plan*.³³ North Carolina also has positive food system initiatives being developed to promote statewide sustainable food policies and community gardening efforts. Furthermore, local North Carolina communities are becoming increasingly involved and are designing programs to overcome healthy lifestyle barriers specific to their region. Physicians that are aware of these initiatives are best equipped to contribute to the challenge of decreasing overweight and obesity in women.

Addressing weight issues specifically for women of childbearing age has been overlooked and deserves more attention. Overweight status in women can negatively affect their health before, during, and after pregnancy, as well as the health of their children. Simple steps that can be incorporated into current practice to enhance weight management efforts include:

- Routinely calculate BMI.
- Be nonjudgmental and start the healthy weight conversation early.
- Provide pregnancy weight gain recommendations to prenatal patients.
- Educate patients about negative environmental food system pressures.
- Provide simple and consistent messages and tools such as a food diary.
- Refer to a dietitian for more extensive nutrition counseling.
- Utilize your clinic setting to promote healthy behaviors.
- Share the care by identifying community resources and appropriate referrals for patients.
- Provide patient follow-up and feedback.

Women who understand both the health risks of obesity and the current inadequacies of the food system can likely encourage advocacy for broad food system change, as they are often gatekeepers for family meals.³⁴ If physicians contribute to educating and empowering women to manage their weight, they can conceivably influence environmental changes that can have far-reaching health benefits for the entire population. **NCMJ**

Figure 1.
Diet Related Community Strategies to Prevent Obesity

- Communities should increase availability of healthier food and beverage choices or restrict less healthy foods and beverages in public service venues.
- Communities should improve availability of affordable healthier food and beverage choices in public service venues.
- Communities should institute smaller portion size options in public service venues.
- Communities should improve geographic availability of supermarkets in underserved areas.
- Communities should provide incentives to retailers to locate in and/or offer healthier food and beverage choices in underserved areas.
- Communities should improve availability of mechanisms for purchasing foods from farms.
- Communities should provide incentives for the production, distribution, and procurement of foods from local farms.
- Communities should limit advertising of less healthy foods and beverages.
- Communities should discourage consumption of sugar-sweetened beverages.
- Communities should increase support for breastfeeding.

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Eat Smart, Move More Health Tip



Choose to Move More Every Day

Physical activity is essential for all of us. Children, adults and seniors can benefit from moderate activity every day. Take a walk with a friend, take the stairs instead of the elevator, or work in your yard. Dancing works too and is great fun! Thirty minutes or more of motion for adults and 60 minutes for children on most days can help keep you in shape and feeling good. Can't find a 30 minute chunk of time? Break it up throughout the day.

For more tips on how to move more every day where you live, learn, earn, play and pray, visit

www.EatSmartMoveMoreNC.com



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