

### Recommended Range of Total Weight Gain For Pregnant Women

Prepregnancy weight for height	Recommended weight gain (lbs)
Underweight (10% below standard)	28 - 40
Desirable (91 - 120% of standard)	25 - 35
Overweight (121 - 135% of standard)	15 - 25
Obese (> 135% of standard)	< 15

Adapted from Texas Department of Health/Bureau of Nutrition Services

### Common Obesity-Related Comorbidities

Excess body weight is a threat to health because it is associated with an increase of cardiovascular disease, type II diabetes, mellitus, hypertension, infertility, stroke, hyperlipidemia, degenerative joint disease, deep vein thrombosis, muscular atrophy, urinary stasis, constipation, pain management challenges and situational depression. Immobility also contributes to pulmonary complications such as atelectasis, pneumonia, delayed or traumatic intubation, and exacerbates pre-existing conditions such as obesity hypoventilation syndrome or sleep apnea.

From: Gallagher S. *The Challenges of Caring for the Obese Patient*. Matrix Medical Communications. Edgemont, PA. 2005. To purchase a copy go to: [www.bariatrictimes.com](http://www.bariatrictimes.com)

### The long term meaning of postpartum weight loss

New research suggests that weight loss the first six weeks after delivery is an indication of subsequent BMI long term—this study suggests there are implications for concerted postpartum education as part of women's health care and services. For more information see: Walker LO, Sterling BS, Timmerman GM. Retention of pregnancy-related weight in the early postpartum period: implications for women's health services. *J Obstet Gynecol Neonatal Nurs*. 2005;34(4):418-427.



### • FACTS •

- Approximately 83 percent of bariatric surgery patients are women, and many are of childbearing age.
- Pregnancy should not be attempted until weight loss and nutritional intake have stabilized.
- Care providers should pay careful attention to the nutritional status of the mother, fetus and neonate and test the mother for gestational diabetes.

Edwards J. Pregnancy after bariatric surgery. *AWHONN Lifelines* 2005;9:388-393.

### More reading...

Cesario SK. Obesity in pregnancy: what every nurse needs to know. *AWHONN Lifelines* 2003 7: 118-125  
Cockey CD. Obesity during pregnancy. *AWHONN Lifelines* 2005 9: 369-370.

### Article review

Roginski R. Patient perspective: Pregnancy after bariatric surgery—a happy healthy ending. *Bariatric Times* 2005;2(3):33-34.  
Robin Roginski describes her journey from a 277 pound newlywed to a 121 pound new mother. In this article, she explains that after one year of married life, Roginski and her husband decided to begin their family. But once in the OB/GYN's office she was faced with her physician's shock at her intentions. "You want to get pregnant like that!" After her initial shock and anger, she decided it was probably necessary to lose weight before the pregnancy and sought out bariatric weight loss surgery. Roginski tells an informative and delightful story!

LoMenzo E, Podkeameni D, Wong Schwartz E, Szomstein S, Rosenthal R. Pregnancy after bariatric surgery. *Bariatric Times* 2005;2(6):1, 13-15.  
This highly informative article details the mechanisms of infertility and the obese woman. The authors explain that issues of infertility are likely due to elevated plasma levels of androgen hormones and excessive levels of estrogen. These hormones occur in higher concentrations in their free forms because of the decreased level of sex-hormone-binding globulin (SHBG). Of note, following a weight loss of at least 15 percent of excess body weight, 85 percent of women have a significant reduction of plasma androgen concentrations. This change along with an increase in SHBG and a decrease in dehydroepiandrosterone sulphate (DHEA-S), which also accompanies weight loss, leads to normalization of the menstrual cycle and fertility. This research article goes on to follow 26 BWLS patients who became pregnant. The purpose of this study was to review the incidence of gynecological and obstetrical effects of pregnancy in this patient population. A must read!



Volume 8.2

## Pregnancy & Obesity



**“Pregnancy, childbirth and childrearing are significant human events.”**

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### Editor's note

Pregnancy, childbirth and childrearing are significant human events. Weight and issues of weight are often a concern to these events. Prospective parents experience a wide range of emotions when learning of a new pregnancy. These emotions range from joy and elation to worry and ambivalence. Although outward physical changes occur, new parents also experience intense emotional responses as well. The emotional ups and downs which accompany all pregnancies may be confusing to the pregnant woman and her partner. Physical changes that occur during the pregnancy effect emotions. This may be particularly true when the new mother is obese. Comorbidities may be exacerbated by a pregnancy. Most women do not look forward to weight gain; however this is even more of a concern to an already overweight woman. Physical limitations due to sheer size cause unwanted emotional and physical concerns. This is also a time when friends, family members and even strangers feel justified in giving unwanted and often unnecessary advice.

Health care clinicians are in the unique position to support new parents by encouraging healthy living, eating and activity, and by providing patient education to promote a positive self-esteem. Clinicians can encourage new parents who suffer with issues of weight, to politely ask well-meaning individuals to share only positive stories. The birth experience is a meaningful human event and health care clinicians can serve their patients best by paying added attention to physical accommodation and emotional support at this special time. The purpose of this issue is to present challenges that accompany caring for women and their families when weight complicates the birth experience, either because of excess weight or because of recent weight loss, as in bariatric weight loss surgery (BWLS). This practical issue discusses pregnancy after massive weight loss, from a physical and emotional perspective. Accommodating the very overweight mother is discussed with ideas for safe patient handling. Postpartum weight gain and normal weight gain during pregnancy are discussed. Numerous resources are presented, all with the goal of promoting a positive maternal/paternal-child experience. I welcome your thoughts!

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## FAQ'S

### Is birth control necessary after BWLS?

Women of childbearing age who elect to have weight loss surgery must use a reliable method of birth control during the period of rapid weight loss and beyond. Avoiding pregnancy during this period is essential because maternal malnutrition may impair fetal development. This explanation is particularly important to those who have previously failed to conceive since fertility may increase following weight loss, indeed, failure to conceive in the face of morbid obesity is yet another positive indication for weight loss surgery. Women who become pregnant after these surgical procedures need specific attention from the surgical team. However, Rand and Wittgrove both report positive pregnancy outcomes following gastric bypass surgery without evidence of fetal impairment.

Rationale for the Surgical Treatment of Obesity. Go to: [www.asbs.org/html/patients/rationale.html](http://www.asbs.org/html/patients/rationale.html)  
Rand CS & MacGregor AM. Medical care and pregnancy outcome after surgery for obesity. *South Med J.* 1989;82(10):1319-1320.

### Is pregnancy possible after BWLS?

Yes. In fact, bariatric surgery often increases fertility for those who have had difficulty conceiving in the past. However, pregnancy must be avoided for 12-18 months postoperatively, until body weight has stabilized.

Rand CS & MacGregor AM. Medical care and pregnancy outcome after surgery for obesity. *South Med J.* 1989;82(10):1319-1320.  
Wittgrove AC, et al. Pregnancy following gastric bypass for morbid obesity. *Obes Surg.* 1998;8(4):461-464  
Wizman PB. *Is pregnancy possible after bariatric surgery?* Answer available at: [www.drwizman.com/FAQs.htm#q13](http://www.drwizman.com/FAQs.htm#q13)

Please submit your questions to ASKQUIP at, [info@sizewise.net](mailto:info@sizewise.net) or fax them to 816-283-1266.

## ASKQUIP!



Bari - Chair™

### Question:

Anna's son is in the neonatal critical care area and Anna is too weak and uncomfortable to walk to the nursery to visit him. Anna's hips are too wide to fit in the standard sized wheelchair. I know there are oversized wheelchairs, but I don't know what size she needs. Are there a variety of sizes and is there a method to measure for a wheelchair?

### Answer:

Yes, wheelchairs are available in a variety of sizes, and yes, there is a method to measure for a size-appropriate wheelchair. (See Measuring Guidelines for a Wheelchair on page 3.) But, your description of Anna raises other questions, such as: Does she have an appropriately-sized bed and other support equipment? Often, patients report discomfort from an improperly-sized bed. Subsequently, lack of sleep leads to unnecessary weakness. For more information on the challenge of obesity, pain management and accommodation for comfort, see: Pain management and the obese patient. *XTRAWise* 2006;8(1) at [www.sizewise.net](http://www.sizewise.net)  
To read more about appropriately-sized equipment, see: Kramer K & Gallagher S. WOC nurses as advocates for patients who are morbidly obese: A case study promoting use of bariatric beds. *Journal of Wound, Ostomy and Continence Nursing* 2004;31(1):276-281.

### Measuring Guidelines for a Wheelchair

- Measure patient in a seated position on a hard surface.
- Use a yard stick, measuring in a straight line, NOT around tissue.
- Measure widest part of seat backside OR widest part of femur.
- Measure height and weight.



### Question:

We have a large county-run, maternal-child health clinic that serves 100-200 women and children daily. Many of our new mothers are very overweight, some weighing up to 450 pounds. We have a real difficult time getting them from their cars, to the waiting area, and then to the exam rooms. The chairs in the waiting rooms are too small for some of our patients, and our exam tables are too small for many. We do not have a budget to readily purchase over-sized equipment. What options do we have?

### Answer:

The SIZEwise Shuttle comes to mind. This product was originally designed as a transport and positioning chair, with two main purposes: 1) provide a multitude of positioning options for the patient, and 2) safely transport patients within the institution. The SW Shuttle accommodates up to 1,000 pounds and has been very well received for these purposes. However, many out-patient centers are also using the Shuttle to transfer patients from their car into the clinic. The patient can comfortably sit in the Shuttle while waiting to see the provider, and the exam can occur on the Shuttle in either supine or reclined position. In the event that the patient must stand—the sit-to-stand chair assist feature can be employed. This product serves to promote patient safety and prevent caregiver injury from numerous transfers. SIZEwise will rent this product on an as-needed basis or rent-to-own programs may also be available in your area. Call 1-800-814-9389 to talk to a Sales Specialist.



### Question:

Sara is a 34-year-old, 280-pound woman. At 28 weeks gestation, she was diagnosed with preeclampsia. Because of other mitigating factors she was hospitalized and is on bedrest. The concern we have is that her hips are very wide and she has trouble repositioning herself. Additionally, we have trouble repositioning her, she does not tolerate a turning surface. What are our equipment options for a support surface?

### Answer:

Preeclampsia occurs in five to eight percent of all pregnancies. It causes hypertension and places the patient at risk for diabetes or impaired kidney function, impaired liver function, embolic disorders, pulmonary edema, seizure disorder and maternal or fetal death. The most significant risk factors for preeclampsia are previous history of preeclampsia, particularly if onset is before the third semester; history of chronic blood pressure, diabetes or kidney disorder; maternal history; multiple gestation; age; polycystic ovarian disease; and BMI greater than 30. Some contend that high body fat may actually be the symptom of the tendency to develop this disorder as it is linked to the genetic tendency toward hypertension, diabetes and insulin-resistance. If preeclampsia occurs early in the pregnancy, as with Sara, the impact is profound. Time away from work, bedrest, medications and hospitalization can be prescribed to control blood pressure. It is in the best interest of the unborn child to be kept in-utero until the lungs are fully developed, but unfortunately the only cure for preeclampsia is delivery of the infant. Sara's weight and hip width, coupled with difficulty repositioning, place her at risk for a number of immobility-related conditions including skin injury. Immobility-related pressure ulcers among the obese patient develop along the mid-back, buttocks, buttock cleft and more. Careful clinical assessment is critical. In addition, consider the all-new SIZEwise Pulsate. This support surface is available in standard, 39" and 48" widths, and provides pulsation therapy. For more information about obesity-related skin injury, refer to: Gallagher S. Skin needs of the obese patient. In: Bryant R & Nix D. *Acute and Chronic Wounds*. 3<sup>rd</sup> edition. CV Mosby. 2006.

For clinical case studies pertaining to pulsation therapy access [www.sizewise.net](http://www.sizewise.net) to see: Norzagaray D. Prevention and treatment of skin injury and the at-risk overweight patient. *National Association of Bariatric Nurses Annual Conference*. Asheville, NC. 2005  
Cooper M. Understanding pressure ulcer development and the immobile obese patient. *National Association of Bariatric Nurses Annual Conference*. Asheville, NC. 2005