Certified Bariatric Nurse (CBN) Certification Examination
STUDY GUIDE

Purpose of this study guide is to provide an outline format of topics that are potentially included in the certification examination. Due to standards of the certification accreditation process, there can be no relationship or communication between the authors of this outline and those that actually develop the examination; therefore this study guide does not represent the actual content of the examination.

This study guide was developed by the Examination Preparation Subcommittee of the Certified Bariatric Nurse Certification Committee based on:
- Thoughtful review of the domains (principal areas of responsibility), tasks (specific goal directed set of activities) and knowledge statements (fundamental knowledge and skill base) derived from the bariatric surgical nurse practice analysis (Berger et al., 2010).
- The experience of the CBN’s on the subcommittee
- Numerous surveys of CBN candidates regarding their examination preparation after taking the examination,
- The development and revision of CBN Examination Preparation course since 2007.
- Comments and recommendation from a pilot group of CBN candidates after preparing and sitting for the examination
- This study guide also includes a list of references and resources.
Practice Analysis Domains/Tasks

As mentioned above, this practice analysis served as a resource in developing the study guide. Described in the CBN Candidate Handbook, the domains and tasks are the foundation for the exam development.

**ASMBS Domains/Tasks**

**Domain 01: Clinical Management**

Provide and document direct and indirect clinical care and education to morbidly obese and bariatric surgery patients/family/support persons.

**Clinical Management - Pre-operative (Pre-hospital)**

**Tasks**

01. Provide and educate candidate/family/support persons with information and resources to assist them in making an informed decision regarding bariatric surgery (for example, pre-operative process, surgical options, risks & benefits, lifestyle changes).

02. Assess and document candidate's understanding of bariatric surgery options.

03. Obtain and review medical, surgical, psychosocial, and cultural history to minimize risks and identify unique needs of the morbidly obese as a bariatric surgery candidate.

04. Coordinate referrals and communicate with the inpatient and outpatient multidisciplinary team to increase opportunity for optimal outcomes.

05. Educate patient/family/support persons regarding preventative measures, signs and symptoms of short- and long-term complications, and appropriate reporting of signs/symptoms of complications.

06. Educate patient/family/support persons about phases of bariatric surgery, including patient responsibilities (for example, pre-operative evaluation, the hospital stay, physical activity, nutrition and supplementation, follow-up, support groups).

07. Evaluate and address patient/family/support persons' knowledge deficits specific to bariatric surgery.
Clinical Management – Perioperative

**Tasks**

08. Assess and individualize patient care based on the unique needs of morbidly obese and bariatric surgery patients.

09. Obtain specialized equipment with appropriate tolerances for morbidly obese and bariatric surgery patients.

10. Implement patient care protocols (for example, airway, transfer, position, medication, pain management) that address the special needs of morbidly obese and bariatric surgery patients.

11. Monitor for complications and take preventive and remedial actions.

12. Assess, modify, and review pre-operative education appropriate to needs of patient/family/support persons.

13. Create and implement discharge plan appropriate to specific needs of bariatric patient/family/support persons, including providing written materials for reinforcement and review.

**Clinical Management - Follow up**

**Tasks**

14. Assess, clarify, modify, and reinforce bariatric education and provide additional intervention (for example, education, referral), as needed.

15. Review and evaluate patient understanding of and compliance with medical regimen (for example, medications, physical activity, nutrition and supplementation, self-care), and intervene as needed.

16. Assess psychosocial adjustment/accommodation to physical changes and intervene, as appropriate.

17. Identify short- and long-term complications unique to bariatric surgery patients (for example, obstructions, strictures, leaks, gastric prolapse) and take appropriate action.

18. Encourage healthy behaviors (for example, nutrition and supplementation, physical activity) to enhance long-term weight loss success.

19. Encourage participation in support group(s) to promote successful long-term weight loss.

20. Instruct and encourage the patient to follow-up with appropriate health care providers.
21. Identify, evaluate, and report secondary effects of surgery (for example, dumping, redundant skin, psychosocial issues), document, and take appropriate actions.

22. Identify and intervene with non-compliant patients (for example, maladaptive eating, failure to follow-up with care provider)

23. Evaluate and report resolution or improvement of comorbid conditions.

24. Perform quality of life measurements to assess improvements in social and cognitive levels and general well-being relative to pre-operative levels.

Domain 02: Multidisciplinary Team Collaboration

Communicate and educate to (a) facilitate continuity of care among multidisciplinary teams for optimal patient outcomes, and (b) improve the quality of care for morbidly obese and bariatric surgery patients.

Tasks

01. Assess the multidisciplinary team’s knowledge level related to the special considerations of morbidly obese and bariatric surgery patients.

02. Create and implement formal and informal multidisciplinary education supported by evidence-based practice related to the care of morbidly obese and bariatric surgery patients for optimal patient outcomes.

03. Evaluate and document formal and informal multidisciplinary education related to the care of morbidly obese and bariatric surgery patients for optimal patient outcomes.

04. Coordinate and communicate the unique needs of bariatric surgery patients to various multidisciplinary healthcare care providers outside of the multidisciplinary team (for example, chiropractors, non-local healthcare providers, dentists, obstetricians).

05. Collaborate with multidisciplinary team to maintain teaching that is appropriate to the psychosocial, cultural, economic, and educational level of morbidly obese and bariatric surgery patients.

06. Initiate and facilitate collaborative relationships within the multidisciplinary team to foster sensitivity to morbidly obese and bariatric surgery patients.

07. Coordinate delivery of the multidisciplinary education related to the care of morbidly obese and bariatric surgery patients to improve patient outcomes/quality of care.

08. Create, implement, and evaluate perioperative protocols (for example, airway, transfer, position, medications, pain management) to address the special needs of morbidly obese and bariatric surgery patients.
Domain 03: Outreach

Provide advocacy, support, and education to individuals, support groups, community groups, and healthcare professionals related to morbidly obese and bariatric surgery patients.

Tasks

01. Contribute to and advance the knowledge base of individuals, support groups, community groups, and health care professionals through interactions, presentations, publications, research, and/or involvement with professional organizations related to morbid obesity.

02. Facilitate and foster advocacy in the general and professional population related to the morbidly obese through role modeling, teaching, and/or mentoring.

03. Promote the development of, encourage participation in, and/or facilitate support groups and programs for bariatric surgery patients, families, and support persons for optimal patient outcomes.

04. Provide general education using varied media (for example, web sites, newsletters, seminars) on the subject of bariatric surgery to the community at large.

Domain 04: Program Administration

Provide leadership and a framework to (a) coordinate services for optimal outcomes, and (b) improve the quality of care for morbidly obese and bariatric surgery patients.

Tasks

01. Establish patient safety standards and staff safety protocols, including furniture, patient transport/transfer systems, medical and surgical equipment.

02. Apply bariatric ergonomic principles, implement patient safety standards, and staff safety protocols to decrease risk of patient and staff injury.

03. Evaluate innovations in technology and advances in care supported by benchmark studies, literature reviews, evidence-based practice, and/or research, and facilitate incorporation into practice.

04. Gather and evaluate internal and external outcomes data for benchmarking/evaluation of bariatric surgery outcomes.

05. Update patient care practices (for example, policies, protocols, clinical pathways, order sets) related to the care of morbidly obese and bariatric surgery patients based on clinical outcomes.
06. Review and incorporate current guidelines and recommendations of agencies such as the National Institute of Health (NIH), American Society for Bariatric Surgery (ASBS), and Surgical Review Corporation (SRC).

07. Review and evaluate the policies of insurance providers regarding their implications on the care of morbidly obese and bariatric surgery patients and implement the corresponding education and policy.

08. Perform quality assurance activities to identify process improvement opportunities for the care of morbidly obese and bariatric surgery patients.

09. Identify specific competencies necessary for delivery of care to morbidly obese and bariatric surgery patients

**ASMBS Knowledge Statements:**

01. Incidence and prevalence of morbid obesity

02. Sensitivity issues in the morbidly obese person

03. Etiology of the disease of obesity

04. Comorbid medical conditions associated with morbid obesity

05. Fundamental principles of weight loss and weight gain

06. Medical management of weight loss modalities

07. History of bariatric surgical procedures

08. Bariatric surgical procedure revisions and associated risks

09. Criteria for candidacy as a bariatric surgery patient

10. Contraindications for candidacy as a bariatric surgery patient

11. Special considerations for the treatment of adolescent and geriatric morbidly obese and bariatric surgery patients

12. Abnormal eating behaviors and disorders in morbidly obese and bariatric surgical patients

13. Psychological disorders in relation to morbidly obese and bariatric surgery patients (for example, depression, addiction, schizophrenia, OCD

14. Special considerations for the treatment of high risk conditions (multiple severe co-morbidities, multiple previous abdominal surgeries, psychological impairment, prior bariatric surgery, severe morbidity obesity)

15. Normal anatomy and physiology of the gastrointestinal system
16. Anatomical and physiological changes associated with specific bariatric surgical procedures

17. Risks and benefits of specific bariatric surgical procedures

18. Preoperative process for bariatric surgery patients

19. Intraoperative process for bariatric surgery patients

20. Comorbidity improvement and/or resolution related to specific bariatric surgical procedures

21. Early and late complications of specific bariatric surgical procedures

22. Clinical presentation of complications in the bariatric surgery patient

23. Prevention and treatment of complications of specific surgical procedures

24. Secondary effects of specific bariatric surgical procedures

25. Pulmonary implications of bariatric surgery in morbidly obese and bariatric surgery patients

26. Cardiovascular implications of bariatric surgery in morbidly obese and bariatric surgery patients

27. Thromboembolic implications of bariatric surgery in morbidly obese and bariatric surgery patients

28. Potential risks and complications of nasogastric tube insertion in bariatric surgery patients

29. Skin integrity, skin care, and hygiene of morbidly obese and bariatric surgery patients

30. Fluid and electrolyte management of bariatric surgery patients

31. Implications of morbid obesity and specific bariatric surgical procedures on drug therapies

32. Laboratory and diagnostic testing related to morbidly obese and bariatric surgery patients

33. Implications of laboratory and diagnostic test results for bariatric surgery patients

34. Specialized equipment needs for morbidly obese and bariatric surgery patients

35. Nutrition and supplementation requirements for specific bariatric surgical procedures
36. Identification, treatment, and prevention of nutritional deficiencies

37. Eating behaviors and recommendations specific to bariatric surgical procedures

38. Phases of the dietary progression following specific bariatric surgical procedures

39. Bariatric ergonomics

40. Role of physical activity for morbidly obese and bariatric surgery patients

41. Benefits of healthy lifestyle changes

42. Psychosocial implications of morbid obesity, bariatric surgery, and bariatric surgical weight management

43. Implications of pregnancy in post-operative bariatric surgical patients

44. Implications of alcohol consumption by patients with specific bariatric surgical procedures

45. Modalities to improve patient compliance with the post-operative regimen

46. Discharge planning process for post-operative bariatric surgical patients

47. Role of support groups for bariatric surgical patients/family/support persons

48. Implications of insurance coverage for bariatric surgical patients

49. Risk management related to morbidly obese and bariatric surgery patients

50. Quality improvement principles

51. Professional organization and government agency guidelines and recommendations for the care of morbidly obese and bariatric surgical patients

52. Research principles

53. Informational resources related to morbid obesity and bariatric surgery

54. Professional associations related to morbid obesity and bariatric surgery
Certified Bariatric Nurse Exam Study Guide

1. Review the disease of obesity
   - Endocrine
   - Socio-economic impact
   - Comorbidities
   - Environmental factors
   - Calculation of body mass index
   - Obesity categories

2. Review normal anatomy/physiology
   - GI tract

3. Review medical management of obesity
   - Diet
   - Exercise
   - Pharmacological interventions
   - Nutrition

4. Review surgical management of obesity
   - History

5. Review peri-op, OR, PACU considerations related to bariatric surgeries
   - Equipment
     - Transfer
   - Patient Prep Considerations
     - Consent
     - Scrub
     - Antibiotics
     - Anti-coagulation
     - Urinary Catheter
     - Positioning/Padding
     - Rhabdomyolysis
   - Anesthesia
     - Intubation/Airway
     - Types
   - Pain management

6. Review RNY Gastric Bypass
   - Surgical procedure
   - Altered anatomy
   - Complications
   - Nursing care
     - Patient Education/Understanding
     - Pre-Surgery
     - Post-Surgery
     - Follow-up
     - Nutrition
     - Pain Management
     - Nursing assessment/diagnosis/planning
7. Review Adjustable Gastric Band
   - Surgical procedure
   - Altered anatomy
   - Complications
   - Nursing care
     - Patient Education/Understanding
     - Pre-Surgery
     - Post-Surgery
     - Follow-up
     - Nutrition
     - Pain Management
     - Nursing assessment/diagnosis/planning
   - Outcomes

8. Review Biliopancreatic Diversion/Duodenal Switch
   - Surgical procedure
   - Altered anatomy
   - Complications
   - Nursing care
     - Patient Education/Understanding
     - Pre-Surgery
     - Post-Surgery
     - Follow-up
     - Nutrition
     - Pain Management
     - Nursing assessment/diagnosis/planning
   - Outcomes

9. Review Vertical Sleeve Gastrectomy
   - Surgical procedure
   - Altered anatomy
   - Complications
   - Nursing Care
     - Patient Education/Understanding
     - Pre-Surgery
     - Post-Surgery
     - Follow-up
     - Nutrition
     - Pain Management
     - Nursing assessment/diagnosis/planning
   - Outcomes

10. Review Nutritional Guidelines
    - Vitamins/Minerals
    - Medical Nutrition Therapy
      - TPN
    - Wounds
    - Malabsorption/Vitamin Deficiencies
      - Thiamin Deficiency/Supplement Recommendations
- Vitamin B12 Deficiency/Supplement Recommendations
- Folic Acid Deficiency/Supplement Recommendations
- Iron Deficiency/Supplement Recommendations
- Calcium Deficiency/Supplement Recommendations
- Vitamin D Deficiency/Supplement Recommendations
- Fat Soluble (A,E,K) Deficiency/Supplement Recommendations
- Copper Deficiency/Supplement Recommendations
- Vitamin B Complex Deficiency/Supplement Recommendations

-Specific diseases related to vitamin deficiencies
  - Wernicke-Korsakoff
  - Beri-Beri
  - Anemia

-Diet

11. Review MultiDisciplinary Team Collaboration
   - Competency
     - Age Specific
     - Cultural Sensitivity
     - Psychosocial
   - Evidence based practice
   - Role/Responsibilities of each member of team
   - Collaboration with other health providers
   - Bariatric Sensitivity

12. Review Outreach
   - Support Group
   - Research
   - Community awareness, education
   - Media (web site, newsletters, seminars)
   - Patient advocacy
   - Access to care

13. Review Program Administration
   - Patient safety
   - Staff safety
   - Standards of Care
   - Accreditation standards (Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program)
   - Evidenced based practice, benchmarking
   - Knowledge of insurance criteria
   - Foster relationships with insurance providers

14. Review Special Populations
   - Adolescents
   - Post-Surgical pregnancy
   - Maladaptive eating
   - Mature adults
   - Non-compliance
15. Review Pharmacological Considerations
   - Absorption
   - Medication reconciliation
   - Medication re-evaluation

16. Review Mental Health Considerations
   - Behavior modifications
   - Maladaptive eating
   - Body image
   - Re-evaluate current psychological axis
   - Consider support systems

17. Review Physical Activity Standards
   - Understanding metabolism
   - Evaluation/Assessment of mobility and gait
     - Pre and post surgery
   - Measurement of % of body fat
   - Motivation strategies

**Study Resources/ References**

**Reference List**

This list is provided as a resource to identify appropriate material that may be useful in preparing for the CBN Examination. This list is not intended to be inclusive of all potentially useful resources nor does it constitute an endorsement by the ASMBS or any officers or representatives of the ASMBS. To assist in locating the listed publications, the web addresses of the publishers are listed when available.

**ASMBS Nutrition Guidelines**
http://asmbs.org/resources/integrated-health-nutritional-guidelines

**ASMBS Psychological Guidelines**
http://asmbs.org/resources/pre-surgical-psychological-assessment

**Other ASMBS Guidelines**
http://asmbs.org/resource-categories/guidelines-recommendations

- Adolescent Bariatric Surgery Best Practice Guidelines
- Bariatric Surgery: Postoperative Concerns
- Clinical Practice Guidelines for the Perioperative Nutritional, Metabolic, and Nonsurgical Support of the Bariatric Surgery Patient
- Gastric Band Adjustment Credentialing Guidelines for Physician Extenders
- Gastric Plication Statement
- Granting Privileges in Bariatric Surgery
- New Expert Witness Policy Statement
- Pediatric Best Practice Guidelines
- Pediatric Committee Best Practice Guidelines

**ASMBS Position Statements** [http://asmbs.org/resource-categories/position-statements](http://asmbs.org/resource-categories/position-statements)
- Access To Care for Obesity Treatment
- American Heart Association Statement
- ASMBS Updated position statement on prophylactic measures to reduce the risk of venous thromboembolism in bariatric surgery patients
- Bariatric Surgery in Class 1 Obesity (BMI 30-35 kg/m2)
- Emerging Endosurgical Interventions for Treatment of Obesity
- Global Bariatric Healthcare
- Peri-Operative Management of Obstructive Sleep Apnea
- Preoperative Supervised Weight Loss Requirements
- Sleeve Gastrectomy as a Bariatric Procedure

**CBN Review Course**
ASMBS will offer a review course for the CBN Examination at various times during the year. In addition, there is an online version of the CBN Examination Review Course. This course costs $129 and also includes 8 CEUs. To pay for and get access to this course, please contact ASMBS at 352.331.4900 or cbn@asbms.org

**CBN Candidate Handbook/Reference List**

**American College of Sports Medicine**

**American Nutrition Association**

**Academy of Nutrition and Dietetics**
[http://www.eatright.org/](http://www.eatright.org/)

**CLINICAL GUIDELINES**
Clinical guidelines regarding weight loss and weight loss surgery published by medical and nursing organizations are good resources to study from. Examples of this type of guideline include:


ASMBS Pediatric Committee Best Practice Guidelines, 2011. Surgery for Obesity and Related Diseases, 8(1), p1-7.

Peri-operative management of obstructive sleep apnea. (2012). Surgery for Obesity and Related Diseases, 8(3), e27-e32.


Gastric band adjustment credentialing guidelines for physician extenders (2012). Surgery for Obesity and Related Diseases, 8(6), e69-e71.


TEXTS

This is listing of current scholarly texts related to the topic of metabolic and bariatric surgery. Inclusion on this list is not a recommendation of any specific text.


Gallagher S, *The Challenges of Caring for the Obese Patient*, Matrix Medical Communications, 2005


JOURNALS

*Bariatric Surgical Practice and Patient Care*, previously Bariatric Nursing and Surgical Patient Care, Mary Ann Liebert Inc.

*Obesity Surgery*, Springer.

*Surgery for Obesity and Related Diseases*,

*Annals of Surgery*

*Journal of the American Medical Association*

*Obesity Management*

**Journal Articles:**


**Complications:**

- Evidenced based strategies to prevent post-operative respiratory dysfunction for patient with obstructive sleep apnea undergoing laparoscopic bariatric surgery.  
  - Ernst, David et al. *Bariatric Nursing and Surgical Patient Care*, 2011 June; 6(2) 79-84.


- Pulmonary Considerations and management of the morbidly obese patient.  

- Complication of adjustable gastric banding surgery for obesity.  

- Complications of bariatric surgery: dumping syndrome, reflux and vitamin deficiencies.  

- Gastric leaks post sleeve gastrectomy: review of its prevention and management t.  

- Outcomes and complications After Bariatric Surgery.
Program Administration:

- Pharmacologic and mechanical strategies for preventing venous thromboembolism after bariatric surgery: a systematic review and meta-analysis
- Diagnosis and management of acute and early complications of/after bariatric surgery.
- Obstructive sleep apnea and perioperative complications in bariatric patients.
- Monitoring for and preventing the long-term sequelae of bariatric surgery.
- Outcomes and complications after bariatric surgery.
- Safety culture and complications after bariatric surgery.

Nutrition:

- The bariatric surgery patient-Nutrition considerations.
- Complications from micronutrient deficiency following bariatric surgery.
- The nutritional and pharmacological consequences of obesity surgery.
- Nutrient deficiencies after gastric bypass surgery
- Early onset copper deficiency following Roux-en-Y gastric bypass.
- Bariatric surgery: nutritional considerations for patients.
- Nutrition and metabolic support recommendation for the bariatric patient.
Psycho-Social:

- Supporting and encouraging the bariatric surgical patient: tips for keeping patients on track and engaged throughout their journey.

- Back on Track: Confronting post-surgical weight gain.

- Psychiatric aspects of bariatric surgery.

- Psychological predictors of mental health and health-related quality of life after bariatric surgery: a review of the recent research

- Psychological predictors of weight loss after bariatric surgery: a review of the recent research.

- Lifestyle management for enhancing outcomes after bariatric surgery.

- Psychological aspects of bariatric surgery.

- Utilizing a bariatric sensitivity educational module to decrease bariatric stigmatization by healthcare professionals.
  - Antoinette J et al. Bariatric Nursing & Surgical Patient Care, 2011 June 6 (2) 73-78.

- Psychological factors and weight loss in bariatric surgery.

- Do postoperative psychotherapeutic interventions and support groups influence weight loss following bariatric surgery? A systematic review and meta-analysis of randomized and nonrandomized trials.

- Post-operative behavioral management in bariatric surgery: a systematic review and meta-analysis of randomized controlled trials

- Psychological assessment of the adolescent bariatric surgery candidate.

- The impact of bariatric surgery on psychological health.

- Body Image concerns amongst massive weight loss patients
• Psychosocial adjustments following weight loss surgery.

**Clinical:**

• Impact of bariatric pre-operative education on patient knowledge and satisfaction with overall hospital experience.

• Sleeve gastrectomy and Roux EN Y gastric bypass: current state of metabolic surgery.

• Bariatric surgery for obesity and metabolic conditions in adults
  o Arterburn DE et al. BMJ. 2014 August 27; 349.

• Gastrointestinal changes after bariatric surgery.

• Bariatric Surgery-effects on obesity and related co-morbidities

• Long-term outcomes of bariatric surgery: a National Institutes of Health symposium.

• Perioperative management of obese patients

• Bariatric Surgery: a best practice article.

• Caring for patients undergoing bariatric surgery.

• Bariatric surgery and gut hormone response.

• Anesthesia case management for bariatric surgery
  o Thompson J et al. AANA j> 2011 Aprill79 (2) 147-160.

• Perioperative management of morbid obesity

• Bariatric Surgery: an overview

• Perioperative nursing care of the patient undergoing bariatric revision surgery.

**Multidisciplinary Team:**

• Implementing a bariatric surgery program

• The multi-disciplinary approach to adolescent bariatric surgery.
Wulkan ML et al. Semin Pediatric Surgery. 2014 February; 23 (1); 2-4.

- Life after Weight Loss Program.

- Implementing a bariatric surgery program.

**Pharmacology:**

- Managing pain in obese patients

- Acute pain management following Roux-en-Y gastric bypass surgery.

- The nutritional and pharmacological consequences of obesity surgery.

- The pharmacological and surgical management of adults with obesity.

- Vitamin, mineral, and drug absorption following bariatric surgery.
  - Sawaya RA et al. Current Drug Metabolism 2012 November; 13 (9):1345-1355.

**Adolescents:**

- Bariatric surgery in obese adolescents: opportunities and challenges.

- Nursing Care of the Adolescent Patient Undergoing Laparoscopic Sleeve Gastrectomy.

- Laparoscopic vertical sleeve gastrectomy for adolescents with morbid obesity
  - McGuire MM et al. Semin Pediatric Surgery. 2014 February; 23 (1); 21-23.

- Laparoscopic adjustable gastric banding in adolescents.
  - Zitsman JL. . Semin Pediatric Surgery. 2014 February; 23 (1); 17-20.

- A review of Depression and Quality of Life Outcomes in Adolescents Post Bariatric Surgery.

- Meeting the Unique Needs of Adolescents in Surgical Weight-Loss Programs
  - Kollar, Linda; Bariatric Nursing & Surgical Patient Care, 2012 September 7 (3) 136-139.

- Adolescent bariatric surgery: a review on nutrition considerations

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