

## Medicare Advantage Medical Policy



### MA Cosmetic and Reconstructive Surgery

Effective 01/01/2024

#### Description

Per the Medicare Benefit Policy Manual cosmetic surgery or expenses incurred in connection with such surgery, for the sole purpose of improving one's appearance, is not covered.

According to the American Society of Plastic and Reconstructive Surgeons, the specialty of plastic surgery includes reconstructive and cosmetic procedures:

**Reconstructive surgery** is performed on abnormal structures of the body, caused by congenital defects, developmental abnormalities, trauma, infection, tumors, involuntal defects, or disease. It is generally performed to improve function, may also be done to approximate a normal appearance, and may be covered as surgery is considered reconstructive in nature.

**Cosmetic surgery** is performed to reshape normal structures of the body in order to improve the patient's appearance and self-esteem. Please refer to CMS IOM Publication 100-02, *Medicare Benefit Policy Manual*, Chapter 16: Section 120 for detailed information.

- Corrective facial surgery will be considered cosmetic rather than reconstructive when there is no functional impairment present. However, some congenital, acquired, traumatic or developmental anomalies may not result in functional impairment, but are so severely disfiguring (e.g. but not limited to severe burns or repair of the face following a serious automobile accident) as to merit consideration for corrective surgery.
- Treatment of complications arising from **cosmetic** surgery will be considered reasonable and necessary as long as infection, hemorrhage or other serious documented medical complication occurs, and the beneficiary has been officially discharged from the facility.

Macromastia (breast hypertrophy) is an increase in the volume and weight of breast tissue relative to the general body habitus. Breast hypertrophy may adversely affect other body systems: musculoskeletal, respiratory, and integumentary. Unilateral hypertrophy may result in symptoms following contralateral mastectomy.

Gynecomastia is the excessive growth of the male mammary glands. These conditions can cause significant clinical manifestations when the excessive breast weight adversely affects the supporting structures of the shoulders, neck, and trunk.

Nasal surgery is defined as any procedure performed on the external or internal structures of the nose, septum or turbinate. It generally involves rearrangement or excision of the supporting bony and cartilaginous structures and incision or excision of the overlying skin of the nose.

Nasal surgery, including rhinoplasty, may be reconstructive or cosmetic in nature. Current CPT Codes do not allow distinction of cosmetic or reconstructive procedures by specific codes; therefore, categorization of each procedure is to be distinguished by the presence or absence of specific signs or symptoms.

Rhinoplasty is a procedure that changes the shape or appearance of the nose while improving or preserving the nasal airway. The primary purpose for Rhinoplasty can be functional, aesthetic, or both and may include other procedures on the paranasal sinuses, septum, or turbinates.<sup>13</sup>

Septoplasty is a procedure used to correct deformities of the nasal septum which can often cause issues with airflow and difficulty breathing.<sup>23</sup>

## Policy

- I. Breast reconstruction to the affected and contralateral breast may be medically necessary following a medically necessary mastectomy.
- II. Removal or revision of a breast implant whether placed for reconstructive or cosmetic reasons may be medically necessary when it is removed for one of the following reasons:
  - A. Mechanical complication of breast prosthesis; including rupture or failed implant, and/or implant extrusion.
  - B. Infection or inflammatory reaction due to a breast prosthesis; including infected breast implant, or rejection of breast implants.
  - C. Other complication of internal breast implant; including siliconoma, granuloma, interference with diagnosis of breast cancer, and/or painful capsular contracture with disfigurement.
- III. Breast Reduction to reduce or lift enlarged or sagging breasts to reshape the breasts to improve appearance is considered cosmetic and not a Medicare benefit.
- IV. A breast reduction may be medically necessary when:
  - A. There are signs and/or symptoms resulting from the enlarged breasts (macromastia) that have not responded adequately to non-surgical interventions (See Guidelines Below) and meet one of the following:
    1. Back, neck or shoulder pain from macromastia and unrelieved by 6 months of:
      - Conservative analgesia,
      - Supportive measures (garment, etc.),
      - Physical Therapy, OR
    2. Significant arthritic changes in the cervical or upper thoracic spine, optimally managed with persistent symptoms and/or significant restriction of activity, OR
    3. Intertriginous maceration or infection of the inframammary skin refractory related to dermatologic measures OR
    4. Permanent shoulder grooving with skin irritation by supporting garment (bra strap).

AND

5. The amount of breast tissue to be removed must be proportional to the body surface area (BSA) per the Schnur18 scale (See below)

**Note:** If the individual's body surface area and weight of breast tissue removed fall above the 22<sup>nd</sup> percentile, then the surgery is considered medically reasonable and necessary with the appropriate criteria. If only one breast meets the Schnur scale criteria; breast tissue may be removed from the other breast in order to achieve symmetry.

OR

- B. To improve or correct asymmetry following cancer surgery on one breast.

**Note:** either the involved breast or contralateral breast may be treated to achieve symmetry.

**Note:** For coverage indications for contralateral reconstruction of an unaffected breast

following a medically necessary mastectomy, refer to the CMS Internet-Only Manual, Pub. 100-03, Medicare National Coverage Determinations Manual, Chapter 1, Part 2, §140.2.

**Guidelines:**

Non-surgical interventions preceding breast reduction should include as appropriate, but are not limited to, the following:

- C. Determining the macromastia is not due to an active endocrine or metabolic process.
- D. Determining the symptoms are refractory to appropriately fitted supporting garments, or following unilateral mastectomy, persistent with an appropriately fitted prosthesis or reconstruction therapy at the site of the absent breast.
- E. Determining that dermatologic signs and/or symptoms are refractory to, or recurrent following, a completed course of medical management.

**Schnur Scale:**

<b>Body Surface Area (m2)</b>	<b><u>Average grams of tissue per breast to be removed</u></b>
1.40-1.50	218-260
1.51-1.60	261-310
1.61-1.70	311-370
1.71-1.80	371-441
1.81-1.90	442-527
1.91-2.00	528-628
2.01-2.10	629-750
2.11-2.20	751-895
2.21-2.30	896-1068
2.31-2.40	1069-1275
2.41-2.50	1276-1522
2.51-2.60	1523-1806
2.61-2.70	1807-2154
2.71-2.80	2155-2568
2.81-2.90	2569-3061
2.91-3.00	3062-3650

V. Mastectomy for gynecomastia with nipple preservation or reduction mammoplasty may be medically necessary for males with gynecomastia Grade III and IV or abnormal breast development with redundancy when following criteria are met:

- F. Persists more than 3 to 4 months after the pathological causes are ruled out (e.g. not limited to testosterone deficiency, testicular tumor, liver disease, or drug induced).<sup>34</sup> AND
- G. Persists after 3 to 4 months of unsuccessful medical treatment for pathological gynecomastia.<sup>16</sup> AND
- H. Pain or tenderness directly related to the breast tissue which has a clinically significant impact upon activities of daily living. AND
- I. Clinical symptoms refractory to a trial of analgesics or anti-inflammatory agents AND
- J. For significant clinical manifestations when the excessive breast weight adversely affects the supporting structures of the shoulders, neck and trunk.

American Society of Plastic Surgeons' gynecomastia scale:<sup>16</sup>

- K. Grade I: Small breast enlargement with localized button of tissue that is concentrated around the areola.
- L. Grade II: Moderate breast enlargement exceeding areola boundaries with edges that are indistinct from the chest.
- M. Grade III: Moderate breast enlargement exceeding areola boundaries with edges that are indistinct from the chest with skin redundancy present.
- N. Grade IV: Marked breast enlargement with skin redundancy and feminization of the breast

VI. Subtotal mastectomy or reduction mammoplasty for the unusual condition of Gigantomastia of Pregnancy may be medically necessary when accompanied by any of the following complications (and delivery is not imminent) medically reasonable and necessary when signs or symptoms are refractory to medical treatment or physical interventions have not adequately alleviated symptoms such as:

- O. Massive infection
- P. Significant hemorrhage
- Q. Tissue necrosis with slough
- R. Ulceration of breast tissue
- S. Intertriginous maceration or infection of the inframammary skin refractory to dermatologic measures.

VII. Tattooing To correct color defects of the skin may be considered reconstructive when performed in connection with a payable post-mastectomy reconstruction, or for reconstruction following trauma or removal of cancer from an eyelid, eyebrow or lip(s).

VIII. Punch graft hair transplant may be considered medically necessary when its performed for eyebrow(s) or symmetric hairline replacement following a burn injury, trauma or tumor removal.

IX. Rhinoplasty may be considered medically necessary when the procedure is performed for correction and repair for one of the following:

- A. Secondary to trauma, disease, congenital defect with nasal airway obstruction that has not resolved after previous septoplasty/turbinectomy or would not be expected to resolve with septoplasty/turbinectomy alone.<sup>19</sup>
- B. chronic, non-septal, nasal obstruction due to vestibular stenosis (i.e., collapsed internal valves).
- C. nasal deformity secondary to a cleft lip/palate or other congenital craniofacial deformity causing a functional impairment. (e.g., cleft lip nasal deformities, choanal atresia, oronasal or oromaxillary fistula)<sup>13</sup>

X. Septoplasty may be considered medically necessary when performed for one of the following:

- A. septal deviation/deformity causing nasal airway obstruction that has proved unresponsive to a trial of conservative medical management lasting at least 6 weeks (e.g. topical nasal corticosteroids, decongestants, antibiotic, allergy evaluation and therapy, etc.).<sup>22, 23</sup>
- B. recurrent sinusitis (4 or more episodes in a year) secondary to a deviated septum that does not resolve after appropriate medical and antibiotic therapy.,<sup>20, 23</sup>
- C. recurrent epistaxis (4 or more significant episodes) related to a septal deformity.<sup>20</sup>
- D. asymptomatic septal deformity that prevents access to other trans nasal areas when such access is required to perform medically necessary procedures (e.g., ethmoidectomy).
- E. performed in association with cleft lip or cleft palate repair.<sup>21</sup>
- F. obstructed nasal breathing due to septal deformity or deviation that has proved unresponsive to medical management and is interfering with the effective use of medically necessary

Continuous Positive Airway Pressure (CPAP) for the treatment of an obstructive sleep disorder.<sup>14</sup>

XI. Chemical peel may be considered medically necessary for the treatment of Actinic Keratosis

XII. Dermabrasopm

- A. Dermabrasion may be considered medically necessary when correcting defects from one of the following:
  - a. Traumatic injury OR
  - b. Surgery, OR
  - c. Disease OR
  - d. Segmental, face dermabrasion may be medically necessary for the diagnosis of Rhinophyma when used in conjunction with antimicrobial therapy.
- B. Dermabrasion is considered cosmetic for the following indications:
  - a. Post acne scarring
  - b. Rosacea other than rhinophyma
  - c. All other indications not identified a

**Note:** Rhinophyma is characterized by skin thickening, which can cause an enlargement of the nose due to excess tissue and overgrowth of sebaceous glands.<sup>7</sup> Rhinophyma in its most severe cases can affect breathing and even vision.<sup>3,7</sup>

XIII. Dermal injections may be medically necessary for the diagnosis of Lipodystrophy syndrome (LDS) and only in Human Immunodeficiency virus (HIV)-infected Medicare beneficiaries who manifest depression secondary to their physical stigma of HIV treatment.

XIV. Abdominal Lipectomy/Panniculectomy may be medically necessary when the following criteria are met:

- A. The pannus or panniculus hangs below the level of the pubis, and the medical records document that the panniculus causes chronic intertrigo [dermatitis occurring on opposed surfaces of the skin, skin irritation, infection or chafing that consistently recurs or remains refractory to appropriate medical therapy (e.g., topical antifungals, corticosteroids, antibiotics)] over a period of 3 months.<sup>12</sup> AND
- B. When surgery is performed to alleviate such complicating factors as inability to walk normally due to pannus size, chronic pain, ulceration created by the abdominal skin fold, or intertrigal dermatitis, such surgery is considered reconstructive. Preoperative photographs may be required to support justification and should be supplied upon request.<sup>12</sup> AND (If applicable)
- C. This procedure may also be medically necessary for the patient that has had a significant weight-loss following the treatment of morbid obesity, in addition to meeting the criteria noted above, there should be evidence that the individual has maintained a stable weight for at least 6 months. If the weight loss is the result of bariatric surgery, abdominoplasty/panniculectomy should not be performed until at least 18 months after bariatric surgery and only when weight has been stable for at least the most recent 6 months and infection and inflammation has continued for the most recent 3 months.<sup>12</sup>

#### A. Limitations

- 1. Cosmetic surgery performed to treat psychiatric or emotional problems is not covered.
- 2. If a non-covered cosmetic surgery is performed in the same operative period as a covered surgical procedure, benefits will be provided for the covered surgical procedure only.
- 3. Dermabrasion
  - Post-acne scarring
  - Rosacea other than rhinophyma

- All other indications not identified as covered in the section above
4. Abdominal Lipectomy/Panniculectomy
    - Repairing abdominal wall laxity, or diastasis recti
    - Redundancies resulting from weight loss or weight loss surgery when that tissue is without evidence of chronic infection or inflammation that is refractory to conservative treatment as outlines in the indications listed above.
    - Solely to improve appearance
    - All other indications unless covered in the section above

**Note:** Abdominal Lipectomy/Panniculectomy is considered experimental and investigational for minimizing the risk of hernia formation or recurrence. There is no evidence that pannus contributes to hernia formation. The primary cause of hernia formation is an abdominal wall defect or weakness, not a pulling effect from a large or redundant pannus.

5. Liposuction used for body contouring, weight reduction or the harvest of fat tissue for transfer to another body region for alteration of appearance or self-image or physical appearance is considered cosmetic and not covered as medically necessary.
6. Reconstructive Breast Surgery: Removal of Breast Implants for re-implantation of an implant inserted for cosmetic purposes only and not for history of mastectomy for treatment of breast cancer, lumpectomy, or treatment of contralateral breast to bring it into symmetry with a reconstructed breast following cancer surgery is not a covered Medicare benefit.
7. Reduction Mammoplasty
  - Surgery performed primarily to reshape the breasts to improve appearance or self-image.
  - Mammoplasty unrelated to breast reconstruction following a medically necessary mastectomy.
8. Mastectomy for gynecomastia
  - Breast reduction or surgical mastectomy for gynecomastia, either unilateral or bilateral, as the first line treatment.
  - When performed solely to improve appearance of the male breast or to alter contours of the chest wall.
9. Gigantomastia of Pregnancy
  - Surgery to reshape the breasts to improve appearance or self-image.
  - All other indications not identified as covered in the section above.
10. Corrective facial surgery will be considered cosmetic rather than reconstructive when there is no functional impairment present. However, some congenital, acquired, traumatic or developmental anomalies may not result in functional impairment, but are so severely disfiguring as to merit consideration for corrective surgery. These situations will be handled through the appeal process.
11. Thyroid chondroplasty to alter the appearance of the thyroid cartilage which is without functional defect is considered cosmetic.
12. Rhinoplasty is not covered when performed for **either** of the following indications because it is considered cosmetic in nature or not medically necessary:
  - Solely for the purpose of changing appearance or improving self-image in the absence of any signs or symptoms of functional abnormalities.
  - As a primary treatment for an obstructive sleep disorder when the above criteria for approval have not been met.
13. Rhytidectomy is generally considered a cosmetic procedure. It may be considered medically necessary upon review to correct a functional impairment as a result of a disease state ie; facial paralysis. Often this procedure is performed in conjunction with other procedures to correct the impairment.

## Position Statement



The American Society of Plastic Surgeons explains Plastic Surgery can include both reconstructive and cosmetic procedures.<sup>1</sup> Typically reconstructive surgery is considered medically necessary to restore function and normal appearance, and to correct deformities that are congenital, trauma related or created by medical conditions such as cancer. Cosmetic surgery is not considered medically necessary as it is performed to reshape and adjust normal anatomy to enhance appearance. Certain conditions can be considered either reconstructive or cosmetic depending on the patient's specific situation. An example of this is rhinoplasty which may be performed to enhance the person's appearance which is cosmetic but also may be necessary to restore normal breathing and appearance after a trauma such as a fracture which is reconstructive. Often rhinoplasty is performed with other procedures which involve the nasal septum, nasal valve, nasal turbinates, or the paranasal sinuses. When adjunctive procedures are performed that do not change the nasal shape or appearance, they do not meet the definition of rhinoplasty. Rhinoplasty performed to address functional abnormalities may inadvertently change the shape or appearance of the nose.

## **Clinical Rationale**

### **Rhinoplasty/Septoplasty**

Ishii et al<sup>13</sup> created clinical guidelines to provide evidence-based recommendations for the treatment of patients who are candidates for rhinoplasty. Rhinoplasty ranks among the most commonly performed cosmetic surgery in the United States. Rhinoplasty should be considered more than just for cosmetic reasons as it is often medically necessary to improve nasal respiration and relieve any congenital or acquired airway obstructions. While Rhinoplasty may be performed to address a functional abnormality, it may also change or enhance the appearance of the nose. Rhinoplasty is often performed with adjunctive procedures that involve the nasal septum, nasal valve, nasal turbinates, or the paranasal sinuses. When these accompanying procedures are performed without an impact on the nasal shape or appearance, they do not meet the definition of Rhinoplasty.

These guidelines were created by a Guideline Development Group that consisted of 16 members representing experts in plastic surgery, facial plastic and reconstructive surgery, otolaryngology, otology, rhinology, sleep medicine, psychiatric, advanced practice nursing, and consumer advocacy. Three literature searches were performed from May 2015 through December 2015 to identify clinical practice guidelines, systematic reviews, and randomized controlled trials. After all exclusion methods the literature resulted in 1 guideline, 22 systematic reviews, and 19 randomized controlled trials. This information was used to gather evidence, relevant treatments, and outcomes.

There were 10 evidence-based recommendations created based on Grade B and C quality of evidence with overall prevalence of benefit over harm. (1) Clinicians should ask all patients about their motivation for surgery and expectations and outcomes. (2) Candidates should be assessed for comorbid conditions that could impact surgery. (3) The rhinoplasty candidate should be evaluated for nasal airway obstruction during the preoperative assessment. (4) Candidates should be educated regarding what to expect after surgery and any potential complications. (5) Candidates should be counseled about the impact of surgery on nasal airway obstruction and how sleep apnea might affect perioperative management. (6) The patient should be educated about strategies to manage pain and discomfort after surgery. (7) Perioperative antibiotics for rhinoplasty should not be routinely prescribed for more than 24 hours after surgery. (8) Perioperative systemic steroids have the option to be administered to the rhinoplasty patient. (9) Packing should not be routinely used in the nasal cavity of rhinoplasty patients at the conclusion of surgery. (10) Clinicians should document patient satisfaction with nasal appearance and function at a minimum of 12 months after surgery.

Included within this guideline were validated patient-outcome tools used to perform functional assessments for rhinoplasty. These tools included Nasal Obstruction Septoplasty Effectiveness (NOSE) scale and Sino-Nasal Outcome Test (SNOT-22). Useful tools for evaluating the nasal septums and turbinates preoperatively included anterior rhinoscopy, nasal endoscopy, Cottle maneuver and modified Cottle maneuver. Anterior rhinoscopy is helpful for assessing the nasal septum and turbinates. For patient with no obvious cause for nasal obstruction using anterior rhinoscopy, nasal endoscopy can be valuable. Nasal endoscopy can be useful to evaluate the posterior septum, the ostiomeatal complex, any possible nasal polyps or purulent drainage, the posterior choanae, adenoidal hypertrophy, and the existence of any tumors. Static and dynamic inspection, palpation and the modified Cottle maneuver can be used to supplement physical examination for evaluating the internal

nasal valve and external nasal valve for nasal valve collapse. For evaluating the extent of septal deviation, turbinate hypertrophy, and nasal deformity, imaging studies are not useful and should not be performed.

Simon and Sidle<sup>19</sup> performed a literature review of surgical procedures used for augmenting the nasal airway. For patients presenting to otolaryngology clinics, the most common complaint is nasal obstruction. There are many different anatomical factors that can contribute to these obstructions and the feeling of decreased nasal airflow. Nasal septum deviation secondary to congenital, traumatic, or iatrogenic etiologies was the most common finding in patients with complaints of nasal obstructions. These authors too found that the NOSE scale or SNOT-22 test should be used to identify the patient's complaint. The preoperative assessment ought to include anterior rhinoscopy for evaluating septal deviation, nasal endoscopy for any possible tumors, Cottle maneuvers and external dilators to assess and determine dynamic valve collapse and also trials of decongestants for evaluating if mucosal congestion is contributing to the nasal obstruction. There are several procedures used to improve these obstructions that fall under the functional rhinoplasty technique such as but not limited to Septoplasty, extracorporeal Septoplasty, and correction of caudal septal deviation.

Han et al<sup>23</sup> developed a clinical consensus statement (CCS) in regards to septoplasty with or without inferior turbinate reduction. A panel was assembled of experts in otolaryngology who performed a systematic literature review to obtain important evidence to support the diagnosis, medical and surgical management of Septoplasty with or without inferior turbinate reduction. A deviated septum is one of the common reasons for nasal obstruction and may or may not involve hypertrophic inferior turbinates. Septoplasty and inferior turbinate reduction aim to improve the nasal airway in these cases. Septoplasty is also used as a supporting procedure to improve access and the function of the paranasal sinuses.

The authors noted that there were no clinical guidelines in regard to appropriate methods for diagnoses and treatment of nasal obstruction secondary to septal deviation and turbinate hypertrophy. Payers often require tests such as acoustic rhinometry/rhinomanometry, nasal endoscopy, photos, and imaging despite evidence-based literature prior to approving payment for septoplasty. The panel developed the CCS after evaluating the appropriateness of septoplasty with or without inferior turbinate reduction based on (1) systematic literature review; (2) establishment of active definitions of septoplasty and inferior turbinoplasty, intended scope of practice, and interested people for the consensus statement; (3) modified Delphi survey development and completion; (4) revising clinical statement repeatedly based on survey results; and (5) assembling data, analysis, and presentation.

The panel reached an agreement that nasal septoplasty is defined as a procedure used to correct a deviated nasal septum to improve nasal function, form, or both. Determining patients appropriate for septoplasty is based on symptomology and physical examination. The panel reached a strong consensus that anterior rhinoscopy, nasal endoscopy or both are adequate to determine septal deviation and can provide useful information prior to septoplasty. The panel did not determine acoustic rhinometry or rhinomanometry to be helpful in diagnosing septal deviation but can be helpful for patients whose primary issue is nasal obstruction. The panel agreed that photographic evidence is unneeded to confirm septal deviation. The group also determined a nasal steroid trial for 4 weeks prior to septoplasty was adequate conservative treatment.

Kaufman et al<sup>21</sup> performed a literature review regarding various modalities for achieving a successful rhinoplasty for patient with cleft nasal deformity. The cleft nasal deformity presents as a difficult challenge in plastic surgery as it involves skin, mucosa, cartilage, and skeletal platform. Cleft lip nasal surgery can be divided into primary, intermediate, and secondary repairs. Early intervention can be beneficial for an earlier restoration of nasal shape with the increased chance for more symmetrical nasal growth. The primary rhinoplasty is performed with the intention to restore symmetry and reposition nasal structures so that deformities will not be exacerbated by further growth. Some patients may need to have intermediate rhinoplasty before reaching school age in order to achieve greater symmetry and to help avoid further growth deformities. The best approach for a secondary rhinoplasty surgery is to wait until basal growth is completed. The deformity is complex and should be addressed during multiple stages of the patient's life to assist in reaching the best outcome.

Modica and colleagues<sup>14</sup> conducted a study on a sample of 52 patients all followed by the Otolaryngology Unit of the University Palermo between January 2015 and January 2017. The purpose of the study was to



determine if functional nasal surgery was effective in moderate to severe OSAS on improving CPAP compliance. The patients in the study all underwent different nasal surgeries (septoplasty, unblocking of lower turbinates, and FESS) and were evaluated 6 months after the surgery using the NOSE scale and evaluating CPAP usage. Most patients following surgery reported an improvement in the degree of obstruction to mild. The results showed by improving nasal function, CPAP usage increased from 2-3 hours a night to 6-8 hours a night with a reduction in CPAP pressure.

### **Reconstructive Breast Surgery: Removal of Breast Implants**

The Food and Drug Administration (FDA)<sup>26</sup> reviewed the risks of breast implants and the associated complications and adverse outcomes. The life of the implants and the chances of developing complications vary by person. Some of the complications listed by the FDA are breast pain and changes in sensation, scar tissue that can cause capsular contracture, rupture and deflation of the breast implant, and the development of different kinds of cancer such as non-Hodgkins lymphoma or breast cancer, systemic symptoms, infections, or connective tissue diseases.

### **Breast Reduction**

The American Society of Plastic Surgeons (ASPS)<sup>9</sup> notes female symptomatic breast hypertrophy has not only negative psychosocial indications but negative physical indications as well.<sup>9</sup> Clinical guidelines were developed based on the evidence in 667 articles to support reduction mammoplasty for symptomatic breast hypertrophy. Symptomatic breast hypertrophy causes persistent neck and shoulder pain, grooving from brassiere straps that is painful, chronic rashes in the skin folds of the breast, and/or frequent headaches, backaches, and upper extremity peripheral neuropathies due to the increased volume and weight of hypertrophic breast tissue. There is no treatment for female breast hypertrophy that is long lasting and non-surgical. Orthotic brassieres may offer some relief but often cause increased discomfort through pressure from the straps. Reduction mammoplasty offers the best approach to relieving the physical symptoms of breast hypertrophy.

Lonie and colleagues<sup>27</sup> conducted a literature search of the PubMed and Cochrane Library, Medline and SCOPUS databases from 1966 to July 2018 according to Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. They included breast reduction, reduction mammoplasty, treatment outcomes, personal satisfaction, quality of life, questionnaire and instrument in their search terms. Pre-determined inclusion criteria by 2 authors resulted in 95 articles that were included. The results of the search were 95 articles met the inclusion criteria and represented 9,716 patients. Data was extracted from the included studies relating to demographics, surgical technique, questionnaires used and physical, psychological and aesthetic outcomes. Fifty-eight studies listed overall satisfaction as primary endpoint, including 5,867 patients. The authors inferred that in 90.3% of the studies, patients reported improvements in the vast majority of pre-morbid symptoms both physical and mental, stating a finding consistent with previous reviews of this subject.

### **Gynecomastia**

The ASPS<sup>16</sup> defines gynecomastia as “the presence of an abnormal proliferation of breast tissue in males”. Gynecomastia can be caused by a broad number of reasons that are either physiological or pathological. True gynecomastia is due to glandular breast tissue where as pseudogynecomastia the breast enlarges secondary to fat accumulation. Both fat and glandular tissue are present in mixed gynecomastia. During puberty gynecomastia is common but often regresses by 6 months to within 3 years of onset. Adult gynecomastia is correlated with increased age due to progressive underactive testicular function, increase in body fat and growth in the estrogen/androgen ratio. Gynecomastia is graded using a scale adapted from the McKinney and Simon, Hoffman and Kohn scale and grade I-IV. The ASPS recommends surgical treatment of gynecomastia to reconstruct the male chest contour and histological explanation of suspicious breast growths. Biopsy of breast tissue is advisable when malignancy is suspected. Surgical treatment is recommended for unilateral or bilateral grade III or IV gynecomastia that persists more than 3 to 4 months after pathological causes have been ruled out, after 3 to 4 months of failed medical treatment, and for pain and discomfort due to the enlargement and tightness of the hypertrophied breast.

## **Gestational Gigantomastia**

Gestational gigantomastia is a rare condition distinguished by exaggerated, rapid, and often disabling enlargement of the breasts.<sup>28</sup> It most often begins in the first trimester and generally occurs bilaterally. Rakislova and colleagues<sup>28</sup> noted that less than 100 cases have been reported in literature and while it is benign, it can lead to serious complications and sometimes death. These authors describe a case study of a 30 year old HIV-positive female with no pertinent past medical history. The patient began having marked increased enlargement of both breasts at 8 to 10 weeks gestation. Initially she did not have pain but as it progressed she experienced burning pain and noticeable discomfort. She presented to the emergency room at 24 weeks gestation and was diagnosed with gestational gigantomastia. Surgical intervention was not recommended due to potential complication and the patient underwent treatment with Penicillin G for 10 days. Despite conservative treatment the ulcers continued to increase and caused heavy blood loss. The patient lost between 3 and 4 liters of blood. The patient received multiple blood transfusions and despite treatment expired on the 13th hospital day.

Fletcher and colleagues<sup>29</sup> conducted a case study on a 31 year old woman, gravida 5, para 4. She presented at 18 weeks gestation with bilateral breast swelling, erythema, and pain for the last 4 months. The patient was eventually hospitalized for her worsening breast pain and after diagnosis of gestational gigantomastia (GG) she was started on bromocriptine. Despite conservative treatment she developed spontaneous local hemorrhage in her left breast. Due to pain and to avoid further complications she underwent cesarean section at term. The patient continued bromocriptine but continued to have severe discomfort and underwent a breast reduction. GG can be significantly debilitating. Skin ulceration, necrosis, infection and hemorrhage can occur as well as sepsis, multiorgan failure, and death though rarely. During pregnancy, conservative management is preferred over breast reduction due to the risk of harm to the fetus. In cases of massive hemorrhage, ulceration, sepsis or necrosis surgical management should be pursued by either breast reduction or mastectomy. Due to the high chance of recurrence with future pregnancies it is recommended those planning future pregnancies undergo mastectomy.

## **Dermabrasion**

Chellappan and Castro<sup>24</sup> presented a case study where they performed electrocautery dermabrasion on a 62 year old male with severe rhinophyma. Rhinophyma is the most advanced stage of rosacea and is classified as Stage IV. During this stage the phymatous changes present with hyperplasia and/or ocular inflammation. Phymatous tissue enlarges over a period of time and should be treated in the early stages to prevent progression as more advanced stages have irreversible fibrotic changes. Extensive thickening of the tissue can obstruct external nasal valves making treatment of the rhinophyma medically necessary to alleviate respiratory issues. Chellappan and Castro<sup>24</sup> show in this case study support of using electrocautery and dermabrasion to remove hypertrophic skin and create a smooth contour. The patient had significant improvement in respiratory function and the patient's skin returned to normal pigmentation, scab free four weeks following the procedure. This supports electrocautery dermabrasion as a mainstay of treatment allowing smooth contouring, efficient hemostasis and does not require multiple treatments.

Niamtu<sup>7</sup> performed a review of the diagnosis and treatment of rhinophyma. Rhinophyma is the end process for severe rosacea and can be a debilitating problem both functionally and psychosocially. The most severe cases can affect breathing and even vision. Minor or early cases can be treated using a range of rosacea medications such as topical creams, sulfur based washes, antibiotics, Retin-A, and light based or photodynamic therapy. Medical or drug treatment in moderate to advanced cases is futile and surgical treatment is certain.

Clarós et al<sup>25</sup> notes in their study that while no consensus concerning the treatment of rhinophyma has been reached, there are many different surgical procedures that have been proposed for the management of this disease. While rhinophyma is considered the final stage of rosacea, it is rare in the older population. This case study retrospectively looked at twelve cases over a 12 year period. These patients were treated with the classical dermabrasion technique with decortication and fibrin glue was applied topically to the skin surface. This technique promoted complete healing and patients reported improved quality of life with no recurrence.

## Abdominal Lipectomy/Panniculectomy

The American Society of Plastic Surgeons<sup>31</sup> outlines practice parameters that are focused on the surgical removal of excess skin and fat that occurs in obese patients or remains following massive weight loss. There are numerous procedures and techniques developed to treat the imperfections that result from massive weight loss such as abdominoplasty, panniculectomy, circumferential lipectomy, torsoplasty, medial thigh lift, and breast reduction. The operative treatment for the correction of the imperfections will vary depending on the patient's body type, fat deposition pattern, and the amount of weight loss.

Not only can imperfections from massive weight loss bring patients a dissatisfaction of appearance but it can affect functional abilities as well such as difficulty exercising, impaired ambulation, chronic pain, and hygiene difficulties. Dermatological issues such as uncontrolled intertrigo, infections and skin necrosis can also develop.

Practice parameters for patients who are preparing to undergo surgery for removal of excess skin and fat are screened and assessed preoperatively. This includes screening for depression, diabetes mellitus, gastroesophageal reflux disease (GERD), nutritional deficiencies if any, abdominal wall hernias, and preoperative lab and diagnostic testing.

Excess skin that remains after significant weight loss is nearly impossible to rectify with diet, weight loss or exercise. Non-surgical candidates are left with very few alternatives for treatment. Alternative treatments such as radiofrequency or ultrasound demonstrate minimal effect and result. Surgical candidates should maintain a stable weight for 2 to 6 months for body contouring. Those patients who have undergone bariatric surgery stable weight is usually reached at 12 to 18 months.

Sachs et al<sup>12</sup> performed an overview of panniculectomy and some of the indications and clinical significance of performing the procedure. Panniculectomy is not a cosmetic procedure and must meet medically necessary criteria. The procedure is performed to remove the excess skin and fat incurred from weight gain. This can cause large overhanging abdominal skin known as a pannus which can sometimes cover the thighs, hips and knees. This excess can cause difficulty with daily activities and cause skin infections and rashes like intertrigo due to irritation and sweating. Typically, patients with skin conditions receive medical treatment with topical antifungals, corticosteroids, and antibiotics.

How far the pannus extends is graded 1 through 5. Grade 1 is the pannus reaching the mons pubis and grade 5 is the pannus extending to or past the knees. For a patient to qualify for a panniculectomy they usually must fail 3 months of medical treatment for intertrigo, and the pannus must hang below the level of the pubis, and confirmed with photography. A panniculectomy is performed to remove the excess skin and fat to relieve the associated symptoms and restore normal function.

Persons who experience dramatic weight loss also can have excess lower abdominal skin which hangs over the groin and pubic areas. This causes issues with walking, discomfort and skin irritation as well. Patients who have lost weight without surgery must maintain stable weight for at least 6 months prior to undergoing a panniculectomy. For those bariatric surgery patients, weight must remain stable for at least 18 months, including the most recent 6 months.

While there are many studies focused on clinical outcomes of abdominoplasty, there are few looking at the advantage of abdominal lipectomy.<sup>32</sup> Abdominal lipectomy is performed to remove excess abdominal tissue where there is little to no abdominal wall undermining, and there is no gathering of abdominal muscle performed with exception to a ventral hernia. Semer et al<sup>32</sup> performed a prospective outcome study on patients who underwent an abdominal lipectomy during a 12 month period from September 2004 to September 2005. Data was obtained at the preoperative visit, during surgery, and at the 1 week, 1 month, and 6 month visits postoperatively.

There are both major and minor complications that can occur with abdominal lipectomy. A major complication is possible rehospitalization or a subsequent operation is needed, whereas minor complications result in

ongoing outpatient care. The authors administered the Short Form-36 Health Survey and the Multidimensional Body-Self Relations Questionnaire to 72 patients enrolled in the study, to assess perceived health, well-being and body image following abdominal lipectomy. The results of the study were that at the end of the 6 month follow-up period, data collected from 59 of 60 patients showed they were happy to have had the surgery. The authors found through the results of the study that abdominal lipectomy is a safe and effective treatment for correcting the symptoms from a lower abdominal pannus.

### **Analysis of Evidence (Rationale for Determination)**

Available literature and the American Society of Plastic Surgeons supports that not all plastic surgery procedures are simply cosmetic in nature and certain procedures are medically reasonable and necessary where functionality needs to be restored and any deformities need to be corrected.

The FDA<sup>2</sup> provides guidance on the risks and complications of breast implants. This LCD is providing limited coverage for the removal of breast implants, whether placed for reconstructive or cosmetic purposes. The indications for removal are based on the complications and/or adverse outcomes published by the FDA.

The American Society of Plastic Surgeons<sup>9</sup> has published clinical guidelines for reduction mammoplasty to treat symptomatic breast hypertrophy as there is no lasting non-surgical treatment proven effective. Schnur and colleagues<sup>33</sup> reported in a study, based on questionnaire responses from women who had undergone reduction mammoplasty that in properly selected individuals, reduction mammoplasty is safe and effective for relieving and improving symptoms related to macromastia. The medical literature supports an approach based on the measurement of body surface area such as the Schuner scale. Medical evidence and expert medical opinion support the use of the Schuner scale to ensure that an adequate amount of breast tissue is removed in order to provide maximum symptomatic relief. Additionally, experts in the specialty agree that breasts are considered paired organs, and it is not possible to definitely relate symptoms to one breast or the other. Therefore, bilateral breast reduction mammoplasty may be considered appropriate if the amount of breast tissue anticipated for removal from at least 1 breast meets the minimum amount (weight) per the Schnur scale and all other criteria are met.

There are many pieces of literature, including guidelines and consensus statements, which support nasal surgery as the treatment for nasal airway obstructions. These obstructions can be caused by a deviated septum, collapsed internal/external valves, congenital defects, or trauma. The patient should be preoperatively evaluated to determine which anatomical structure of the nasal airway is causing the obstruction and plan the appropriate surgical intervention. Most conditions require failure of conservative treatment such as steroids, decongestants, and dilators before undergoing surgery as the final step. Literature supports the use of anterior rhinoscopy, endoscopy, and/or Cottle maneuver as part of the diagnostic process.

Dermabrasion is used for treating various dermatological conditions such as acne scars, wrinkles, and different forms of rosacea. While these are considered cosmetic in nature, rhinophyma causes functional impairment or deformities. Rhinophyma can cause thickening of the nasal skin that can develop into structural deformities that impede on the nasal airway openings leading to respiratory problems. While there is no gold standard for treating this condition, the goal is to remove the hypertrophic skin. The literature supports that dermabrasion is a safe and successful procedure for rhinophyma with positive outcomes. This LCD will provide limited coverage for the use of dermabrasion as a treatment for rhinophyma.

When patients lose large amounts of weight and are left with loose excess skin and fat, additional weight loss or exercise will not correct it. A panniculectomy is medically necessary when excess skin and fat impedes the patient's activities of daily living, ability to perform appropriate hygiene, causes chronic pain, dermatologic issues and impairs the ability to walk or exercise. The literature supports providing limited coverage for panniculectomy in the treatment of excess skin and fat of the abdomen when the above criteria are met.

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