**Subject:** Reduction Mammaplasty

**Guideline #:** CG-SURG-71 **Publish Date:** <u>07/07/2021</u>04/07

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#### **Description**

This document addresses reduction mammaplasty (plastic surgery of the breast intended to reduce volume by excision of tissue and often to improve shape and position), and does not apply to reconstructive procedures performed after surgery for breast cancer or other clinical indications, including removal of implants.

**Note:** For other information related to breast procedures refer to:

- ANC.00009 Cosmetic and Reconstructive Services of the Trunk and Groin
- CG-SURG-27 Gender Reassignment Affirming Surgery
- CG-SURG-88 Mastectomy for Gynecomastia
- SURG.00023 Breast Procedures; including Reconstructive Surgery, Implants and Other Breast Procedures

Note: For information related to mastectomy for gynecomastia and other breast procedures including reconstructive surgery and implants, refer to:

- SURG.00023 Breast Procedures; including Reconstructive Surgery, Implants and Other Breast Procedures
- CG SURG 88 Mastectomy for Gynecomastia

Note: For information related to the use of liposuction for non-breast reduction surgery related indications, refer to:

ANC.00009 Cosmetic and Reconstructive Services of the Trunk and Groin

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## **Reduction Mammaplasty**

Note: For information related to the use of mammoplasty in gender reassignment surgery, refer to:

• CG SURG-27 Gender Reassignment Surgery

**Medically Necessary:** In this document, procedures are considered medically necessary if there is a significant functional impairment, AND the procedure can be reasonably expected to improve the functional impairment.

**Cosmetic:** In this document, procedures are considered cosmetic when intended to change a physical appearance that would be considered within normal human anatomic variation. Cosmetic services are often described as those that are primarily intended to preserve or improve appearance.

#### **Clinical Indications**

# **Medically Necessary:**

Reduction mammaplasty is considered **medically necessary** when either of the following criteria (I or II) are met:

- I. Individuals meeting BOTH of the following criteria (A and B):
  - A. Presence of one or more of the following:
    - 1. A cervical or thoracic pain syndrome (upper back and shoulder pain), in which interference with daily activities or work has been documented. The pain is not associated with other diagnoses (that is, arthritis, multiple sclerosis, cervical spine disease, etc. have been adequately ruled-out by means of diagnostics, as applicable), and there has been at least 3 months of adequate conservative treatment with one or more of the following: special support garments (for example, special support bras, bras with wide straps), NSAIDs, physical therapy, or similar modalities; or
    - 2. Submammary intertrigo that is refractory to conventional medications and measures used to treat intertrigo, or shoulder grooving with ulceration unresponsive to conventional therapy; **or**
    - 3. Thoracic outlet syndrome (to include ulnar paresthesias from breast size) that has not responded to at least 3 months of adequate conservative treatment.

and

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B. The preoperative evaluation by the surgeon concludes that an appropriate amount of breast tissue, from at least one breast, will be removed, based upon body surface area or total mass to be removed and that there is a reasonable prognosis of symptomatic relief. The request for surgery must include: the individual's height and weight; the size and shape of the breast(s) causing symptoms; the anticipated amount of breast tissue to be removed. Pictures may be requested to document medical necessity.

**Note:** Medical records from the primary care physician and other providers (for example, physiatrist, orthopedic surgeon, etc.) who have diagnosed or treated the symptoms prompting this request may also be required.

The appropriate amounts (in grams) of breast tissue must be anticipated for removal from at least one breast, which is based on the individual's total body surface area (BSA) in meters squared. **See Appendix** for a table relating BSA values to the minimum amount (weight) of breast tissue to be removed per breast.

To calculate body surface area see: <a href="http://www.medcalc.com/body.html">http://www.medcalc.com/body.html</a>.

or

- II. Individuals, regardless of BSA, who are anticipated to have at least 1 kg. of breast tissue removed from each breast and who meet the following criteria:
  - A. Presence of one or more of the following:
    - 1. A cervical or thoracic pain syndrome (upper back and shoulder pain), in which interference with daily activities or work has been documented. The pain is not associated with other diagnoses (that is, arthritis, multiple sclerosis, cervical spine disease, etc. have been adequately ruled-out by means of diagnostics, as applicable), and there has been at least 3 months of adequate conservative treatment with one or more of the following: special support garments (for example, special support bras, bras with wide straps), NSAIDs, physical therapy, or similar modalities; or
    - 2. Submammary intertrigo that is refractory to conventional medications and measures used to treat intertrigo, or shoulder grooving with ulceration unresponsive to conventional therapy; **or**
    - 3. Thoracic outlet syndrome (to include ulnar paresthesias from breast size) that has not responded to at least 3 months of adequate conservative treatment.

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#### **Not Medically Necessary:**

Breast reduction surgery is considered **not medically necessary** when the criteria above are not me<u>ti including for breast cancer risk reduction</u>.

The use of liposuction to perform breast reduction is considered **not medically necessary.** 

#### **Cosmetic and Not Medically Necessary:**

Breast reduction surgery is considered **cosmetic and not medically necessary** for the following conditions: poor posture, breast asymmetry, pendulousness, problems with clothes fitting properly and nipple-areola distortion<u>.</u>-or psychological considerations.

#### **Coding**

The following codes for treatments and procedures applicable to this guideline are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

#### When services may be Medically Necessary when criteria are met:

<b>CP</b>	T

19318 Breast reduction

#### **ICD-10 Procedure**

For the following, when specified as breast reduction:

OHBTOZZ Excision of right breast, open approach
OHBUOZZ Excision of left breast, open approach
OHBVOZZ Excision of bilateral breast, open approach
OHOTOZZ Alteration of right breast, open approach
OHOUOZZ Alteration of left breast, open approach

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## **Reduction Mammaplasty**

OHOVOZZ Alteration of bilateral breast, open approach

OJ060ZZ Alteration of chest subcutaneous tissue and fascia, open approach

#### **ICD-10 Diagnosis**

G54.0 Brachial plexus lesions (thoracic outlet syndrome)

L30.4 Erythema intertrigo

M54.2 Cervicalgia

M54.6 Pain in thoracic spine N62 Hypertrophy of breast N64.81 Ptosis of breast

#### When services are Not Medically Necessary:

For the procedure and diagnosis codes listed above when criteria are not met, and for the following diagnosis codes

#### **ICD-10 Diagnosis**

Z15.01 Genetic susceptibility to malignant neoplasm of breast

Z40.01 Encounter for prophylactic removal of breast Z80.3 Family history of malignant neoplasm of breast

#### When services are also Not Medically Necessary:

For the procedure and diagnosis codes listed above when criteria are not met, and fF or the following procedure and diagnosis codes

#### **CPT**

Suction assisted lipectomy; trunk [when used to report breast reduction performed by

liposuction method]

#### **ICD-10 Procedure**

OJ063ZZ Alteration of chest subcutaneous tissue and fascia, percutaneous approach

OJD60ZZ Extraction of chest subcutaneous tissue and fascia, open approach

OJD63ZZ Extraction of chest subcutaneous tissue and fascia, percutaneous approach

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#### **ICD-10 Diagnosis**

N62 Hypertrophy of breast

N64.81 Ptosis of breast

N65.1 Disproportion of reconstructed breast

Z15.01 Genetic susceptibility to malignant neoplasm of breast

Z40.01 Encounter for prophylactic removal of breast Z80.3 Family history of malignant neoplasm of breast

#### When services are Cosmetic and Not Medically Necessary:

For the procedure codes listed above for situations designated in the Clinical Indications section as cosmetic and not medically necessary.

#### **Discussion/General Information**

The most common method of Bbreast reduction surgery involves the surgical removal of skin, fat and breast tissue to. The procedure is designed to reconstruct the breast with an aesthetically acceptable appearance while reduceing the breast mass. Another proposed method Liposuction of mammaplasty involves the suction removes only of fatty tissue from the breast (liposuction). Any major surgical treatment has significant risks including the risks of general anesthesia, infection, and bleeding. In the event the individual develops symptoms of postoperative complications, such as elevated temperature, significant wound inflammation/increased drainage, inability to tolerate oral fluids or diet, or increased pain, continued inpatient stay protocols would be implemented that are consistent with medical review guidelines.

Breast reduction surgery In some cases is performed when ,-excess breast mass and weight is believed to lead-causes to-medical problems such as submammary intertrigo, (an inflammatory condition affecting-causing redness, burning, itching, skin disintegration and cracking the skin directly-underneath the breast), . Symptoms of intertrigo include redness, burning, itching, skin disintegration and cracking, and secondary infections. Another possible medical problem is thoracic outlet syndrome, which can lead to pain and loss of feeling in the arms or hands. In many instances, extremely large breasts (for example, macromastia or breast hypertrophy) have been associated

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with the development of back, neck and shoulder pain, or thoracic outlet syndrome, which can lead to pain and loss of feeling in the arms or hands. Obviously, such symptoms have a significant negative impact on quality of life and may limit physical functioning. Removal of excess breast tissue results in a decrease in breast mass and weight with the goal of, which should theoretically relievinge the symptoms. In the absence of such symptoms or associated conditions, breast reduction has been used as a technique may be performed for cosmetic purposes to enhance the appearance of the breast for cosmetic purposes.

When symptoms exist and cannot be alleviated by conservative methods (examples include pain medication, physical therapy, and skin ointments or powders), surgical intervention to reduce the size of the breasts may be indicated. In such cases, scientific studies have shown that a significant amount of breast tissue must be removed in order to alleviate physical symptoms. The amount of breast tissue needed Debate has occurred surrounding what should be considered an adequate amount of breast tissue to be removed to achieve adequate symptomatic relief is not well understood. The limited medical literature addressing this question is largely supports an approach based upon on the estimating the amount to be removed based measurement of on body surface. One such approach is referred to area such as the Schnur scale. Keeping with accepted medical opinion and medical evidence, the use of the Schnur scale ensures that an adequate amount of breast tissue be removed in order to maximize the probability of symptomatic relief. Additionally, specialty consensus opinion agrees that breasts are considered paired organs, and it is not possible to definitively relate symptoms definitively to one breast or the other. Therefore, bilateral breast reduction mammaplasty may be considered appropriate if the amount of breast tissue anticipated for removal from at least one breast meets the minimum amount (weight) per the Schnur scale and all other criteria are met.

Schnur and colleagues (1991) reported the results of two surveys sent to 220 randomly selected, board certified plastic surgeons who performed reduction mammaplasties. A total of 92 plastic surgeons returned survey data of 600 women on whom reduction mammaplasty had been performed. Data obtained from the first survey included the height and weight of the individual, as well as the amount of breast tissue removed from each breast. The second survey resulted in an estimate of percentages of women who sought a reduction mammaplasty for purely cosmetic reasons, for purely medical reasons, and for mixed reasons. Based on the results obtained, the authors concluded that if the removed breast tissue weight was greater than the 22<sup>nd</sup> percentile, a woman's motivation for the surgery was medical, and if the removed breast tissue weight was less than the 5<sup>th</sup> percentile, the procedure was sought for cosmetic reasons. Those women whose removed breast tissue weight was between the 5<sup>th</sup> and the 22<sup>nd</sup>

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percentile reportedly had mixed reasons for requesting the procedure. In a subsequent outcome study, based on questionnaire responses from women who had undergone reduction mammaplasty, Schnur and colleagues (1997) reported that in properly selected individuals, reduction mammaplasty is a safe and effective procedure for relieving or improving symptoms related to symptomatic macromastia. Because breasts are paired organs, bilateral breast reduction mammaplasty may be considered appropriate if the amount of breast tissue anticipated for removal from at least one breast meets the minimum amount (weight) per the Schnur scale and all other criteria are met.

Chadbourne and colleagues (2001) conducted a systematic review and meta analysis on 29 studies and 4173 individuals. A review of the literature was performed from 1985 until March 1999. Eligible studies were experimental and observational. The studies involved females with preoperative physical or psychosocial signs and symptoms who underwent reduction mammaplasty for breast hypertrophy. Outcomes assessed included postoperative signs and symptoms such as shoulder pain, shoulder (bra strap) grooving, and quality of life domains. Statistically significant improvement of signs and symptoms was seen between preoperative and postoperative periods. Limitations of the review include recall bias, a high proportion of individuals (25%) without follow up results, and arbitrary outcome formats. Key limitations of this publication are the inherent limitations of "meta-analysis" for evaluating studies which are not randomized controlled trials (RCTs), and that this study was not designed to determine a threshold for weight of tissue to be removed to produce symptom relief.

Collins and colleagues (2002) conducted a prospective, controlled study designed to evaluate the efficacy of breast reduction in alleviating symptoms of macromastia by comparing baseline and postoperative health status. Standard outcome instruments were utilized in the study and consisted of the SF-36, the EuroQol, the Multidimensional Body-Self Relations Questionnaire (MBSRQ), and the McGill Pain Questionnaire (MPQ). The study involved 179 subjects with matched preoperative and postoperative data sets, 96 controls, and 88 hypertrophy controls. The women were mainly Caucasian, middle-aged, well-educated, and employed. Data from completed questionnaires were gathered preoperatively and at approximately 6 to 9 months post-surgery. Outcomes demonstrated that subjects preoperatively had lower scores (p<0.05) in all health domains of the SF-36 and in the mental and physical component summary scores. After surgery, the same group of subjects measured higher than national norms in seven of eight health domains. Preoperative pain scores measured with a Pain Rating Index (PRI) score from the

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MPQ were reported to be 26.6, and after surgery pain was stated to be lower with a score of 11.7. Study limitations included a lack of randomization and the possibility that women may have overstated their symptoms or lack of effectiveness of nonsurgical treatments. Also In addition, the study was not designed to determine a threshold for weight of tissue to be removed to produce symptom relief, and there was no comparison of resection weight and extent of symptom relief.

Cunningham and colleagues (2005) analyzed complication data from the Breast Reduction Assessment: Value and Outcomes (BRAVO) study by Collins and colleagues (2002). Study data from 179 subjects post breast reduction surgery were analyzed, and results demonstrated an overall complication rate of 43% (77 individuals). The most common complication was delayed wound healing. Other complications included splitting sutures, hematoma, nipple necrosis, hypertrophic scars, fat necrosis, seroma, and infection. The authors noted that average preoperative breast volume, a vertical incision, and preoperative shoulder grooving were associated with an increased incidence of complications while age, smoking status, body mass index, weight of breast tissue resected, pedicle type, keyhole incision, free nipple grafting, operative time, use of epinephrine, drains, and liposuction were not associated with an increased incidence of complications. The major weaknesses of the study included the small sample size, possible inconsistencies in defining and reporting complications, and the introduction of a new technique (vertical scar) during the study period.

Saariniemi and colleagues (2008) reported on a study assessing quality of life and pain in 82 women randomized to either reduction mammaplasty or a nonoperative group. Evaluations were performed at the onset of the study and 6 months later. The authors reported the mammaplasty group had significant improvements in quality of life as measured by the physical summary score of the Short Form (SF)-36 quality-of-life questionnaire (change of +9.7 vs. +0.7, p<0.0001), the utility index score (SF-6D) (+17.5 vs. +0.6), the index score of quality of life (SF-15D) (+8.6 vs. +0.06, p<0.0001), and the SF-36 mental summary score (+7.8 vs. -1.0, p<0.002). There were also improvements in breast-related symptoms as measured by the Finnish Breast-Associated Symptoms questionnaire score (-7.9 vs. -3.5, p<0.0001) and the Finnish Pain Questionnaire score (-21.5 vs. -1.0, p<0.0001). This study was limited by a small sample size and lack of long-term follow-up.

Lin and colleagues (2020) published a meta-analysis of data from seven RCTs with a total of 285 participants comparing reduction mammoplasty with a control intervention for the treatment of breast hypertrophy, and

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reporting pain, physical function or psychological function. A pooled analysis of data from four studies found a statistically significant reduction in pain in the reduction mammoplasty compared with control group, standardized mean difference [SMD], -1.29; 95% confidence interval (CI), -1.63 to -0.96; p<0.00001. A pooled analysis of five studies found significantly greater improvement in physical function status after reduction mammoplasty versus control, SMD, 0.97; 95% CI, 0.69 to 1.25; p<0.0001. Data from three studies were suitable for the pooled analysis of psychological function. In this analysis, reduction mammoplasty had a significantly greater effect on psychological functioning compared with control, SMD, -0.79; 95% CI, -1.07 to -0.52; p<0.0001.

Gonzalez and colleagues (2012) reported on 178 women who had breast reduction surgery primarily for symptomatic macromastia. The Breast Q questionnaire was completed once after surgery, and retrospective chart reviews were also completed to assess individual outcomes and determine whether any correlation exists between outcomes and size or amount of breast tissue removed. Most of the women responded to the surgery satisfactorily with a mean response on the Breast Q questionnaire of 2.8 (2, somewhat agree; 3, definitely agree). The mean body mass index (BMI) reported was 28.3 kg/m and correlated significantly with the amount of breast tissue removed (p<0.0001). The mean combined total amount of breast tissue removed was 1221 g but did not correlate significantly with quality-of-life responses (p=0.57).

Gust and colleagues (2013) performed a retrospective analysis of all reduction mammaplasties recorded in the National Surgical Quality Improvement Program database for 2006-2010. Complication rates across multiple institutions were stratified by BMI. In addition, data on demographics, comorbidities, medical and surgical complications, reoperation, and mortality were collected through 30 days post-surgery. Of 2492 women included in the study, 55% were considered obese (BMI > 30). The overall surgical complication rate was 4.0%, increasing from 2.4% for BMI < 25 to 7.1% for BMI > 45 (p=0.006), with an adjusted odds ratio of 2.97 for BMI > 45 versus BMI < 25. The most common surgical complication was superficial surgical site infection found in 2.9% of the women. Superficial surgical site infection increased from 2.1% for BMI < 25 to 5.1% for BMI > 45 (p=0.03). The medical complication rate was 0.6%, and the reoperation rate was 2.1%. There were no deaths reported. Analysis showed that BMI  $\geq$  39 was associated with a significantly higher complication rate, with an odds ratio of 2.38. The authors concluded that reduction mammaplasty is a safe surgical procedure, even when performed on those with a high BMI. However, those with higher BMI have a greater risk of surgical site complications, and the risk should be discussed preoperatively with obese individuals.

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In 2015, Strong and Hall-Findlay reported results of a custom-designed questionnaire given to women at routine follow-up appointments, asking them to rate their preoperative and postoperative symptoms related to macromastia. All subjects had a reduction mammaplasty performed by the senior author of this paper, and the same surgical technique was used for all. Of an initial 661 eligible subjects, a total of 410 remained in the study after excluding questionnaires that were incomplete, had answers provided in an incorrect format, or were returned too early. A Schnur sliding scale percentile had been calculated for all participants. The subjects/questionnaires were divided into six groups based on the amount of tissue resected per breast. Information received was examined for a trend that would link a higher amount of tissue resected to a greater change in symptoms. Only subjects who had reported the particular symptom prior to surgery were included in this analysis. There was no statistically significant trend across the groups related to breast pain, shoulder grooves, rashes under the breast, headache, exercise intolerance, or lack of self-esteem. Statistically significant results were reported for symptoms related to back pain, neck pain and poor posture suggesting a potential relationship between greater amounts of tissue resected and increased symptom improvement. However, after post hoc tests were performed, there was no statistically significant difference reported between the groups for these three symptoms. The authors concluded their study demonstrated that for reduction mammaplasty "patients can experience significant symptomatic relief even when less than 250 g of tissue is resected from each breast." There were significant limitations of this study including the retrospective nature that relied on "patient recollection of preoperative symptoms" and the dependence upon one specific surgeon's techniques.

Manahan and colleagues (2015) conducted a large, retrospective review of consecutive breast reduction procedures performed at a single institution. Medical records were assessed for demographics, medical history, physical examination, intraoperative data, and postoperative complications. Seventeen surgeons performed 2152 consecutive breast reductions on 1148 subjects using a variety of common breast reduction techniques. Average age was 36 years, average follow-up was 6.3 months, and average BMI was 33.5 kg/m². Complications included scars (14.5%), nonsurgical wounds (13.5%), fat necrosis (8.2%), infection (7.3%), wounds requiring negative pressure wound therapy or reoperation (1.4%), and seroma (1.2%). A body mass index (BMI) greater than or equal to 35 kg/m increased risk of infections, seromas, fat necrosis, and minor wounds. Cardiac disease increased risk for reoperation for scars and fat necrosis. Tobacco use and age over 50 years increased the infection risk. Secondary surgery increased rates of seromas. Previous hysterectomy/oophorectomy increased risk of wound reoperations and

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## **Reduction Mammaplasty**

exogenous hormone supplementation trended toward decreasing infections. The authors concluded that a number of risks were predictors of complications after reduction mammaplasty. Also, they highlighted a need for "large studies with rigorous statistical methods."

Kraut and colleagues (2017) performed a systematic review of observational studies to determine the impact of reduction mammaplasty on the ability to breastfeed. The researchers reviewed 51 studies that included 31 different reduction surgery techniques. They found a pattern in which the breastfeeding success average was higher depending upon the preservation of the column of subareolar parenchyma: no preservation 4% (interquartile range [IQR] 0-38%), partial preservation 75% (IQR 37-100%), and full preservation 100% (IQR 75-100%). The researchers concluded that the surgical technique is an important consideration for women of childbearing age who plan to breastfeed and should be discussed prior to surgery. Limitations of the review included the high risk of bias and incomplete reporting in some of the studies. The researchers noted that further studies are needed to confirm the findings.

In a systematic review and meta-analysis, Myung and colleagues (2017) evaluated the relationship between obesity and surgery complications after reduction mammaplasty. Surgical complications that were analyzed included infection, delayed wound healing, wound dehiscence, hematoma, seroma, and tissue necrosis. A total of 26 studies, mostly retrospective, were included in the review. The researchers compared obese (n=3752) and non-obese (n=3152) subjects and found that surgical complications were collectively higher in the obese group (relative risk [RR] 1.45; 95% CI, 1.21 to 1.75), with skin and fat necrosis especially prevalent (RR 2.01; 95% CI, 1.54 to 2.63). In addition, the researchers found that the risk of surgical complications gradually increases with the severity of obesity. They concluded that obesity risk is not high when compared to other types of surgeries, but "every surgeon should consider the risks and benefits of reduction mammaplasty carefully during patient selection and should appropriately plan the surgery."

In a prospective, longitudinal study, Nuzzi and colleagues (2017) evaluated the effects of reduction mammaplasty on the quality of life in adolescents with macromastia. The researchers compared adolescents who had reduction mammaplasty (n=102) with a healthy control group that had no history of breast complaints (n=84). The criteria for the mammaplasty group included female individuals ages 12-21 with symptomatic bilateral macromastia and no previous history of breast surgery. Macromastia was evaluated using a symptom profile, physical exam, and

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## **Reduction Mammaplasty**

modified Schnur criteria. Participants completed four self-administered validated surveys: the Short-Form 36v2 (SF-36), the Rosenberg Self-Esteem Scale (RSES), the Breast-Related Symptoms Questionnaire (BRSQ), and the Eating Attitudes Test-26 (EAT-26). The surveys were completed at baseline, 6 months, 1 year, 3 years, and 5 years. After surgery, the mammaplasty group had significant score improvements in several domains, including physical functioning, role-physical, bodily pain, vitality, social functioning, role-emotional, and mental health (p<.001). At 6 months, the mammaplasty group scored similarly to or better than the control group on the surveys, and the benefits continued at the 5 year follow-up. The researchers found that age and weight did not significantly affect the results. The researchers concluded that "reduction mammaplasty significantly improves the breast-related symptoms and self-reported physical and psychosocial wellbeing of adolescent patients with macromastia."

The American Society of Plastic Surgeons (ASPS) (2011a; 2011b) issued a document on criteria for third-party payers and a companion practice guideline for reduction mammaplasty. In 2012 Kallianen reviewed the ASPS guidelines and affirmed their recommendations. The ASPS indicates level I evidence has shown reduction mammaplasty is effective in treating symptomatic breast hypertrophy which is defined as the following:

Syndrome of persistent neck and shoulder pain, painful shoulder grooving from brassiere straps, chronic intertriginous rash of the inframammary fold, and frequent episodes of headache, backache, and neuropathies caused by heavy breasts caused by an increase in the volume and weight of breast tissue beyond normal proportions.

The ASPS also indicates volume or weight of breast tissue resection should not be criteria for reduction mammaplasty. If two or more symptoms are present all or most of the time, reduction mammaplasty is appropriate. Their position is largely based on observational studies which that lack randomized control groups and have a potential for selection bias.

#### Breast cancer risk reduction

The National Comprehensive Cancer Network (NCCN) Breast Cancer Risk Reduction guideline (V1.2020) does not mention reduction mammoplasty as a strategy for reducing risk of breast cancer. For individuals with a genetic

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## **Reduction Mammaplasty**

mutation indicating a high-risk of breast cancer, the NCCN guideline recommends considering risk-reducing mastectomy and bilateral oophorectomy.

No RCTs evaluating reduction mammoplasty as a strategy for breast cancer risk reduction were identified.

A large epidemiological study followed 30,457 Swedish women who had breast reduction surgery for a mean of 16 years (range 0.1 to 37.8 years) (Fryzek, 2006). A total of 443 breast cancers were observed during follow-up. Compared with the expected numbers of breast cancers calculated from rates in the general population of Swedish women, there were significantly fewer breast cancers among the women who had undergone breast reduction (standardized incidence ratio [SIR], 0.71, 95% CI, 0.65 to 0.78). Individuals were not randomized to intervention group and there may have been differences between women who had breast reduction surgery and the general population of women in ways that affected outcome, such as in breast cancer risk. The study did not have information on risk factors for breast cancer.

#### Liposuction

The use of liposuction, as the primary tool or as an adjunct for reduction mammaplasty, has not been demonstrated to improve health outcomes in the medical literature. While there have been case series reported (Abboud, 2020; Habbema, 2009; Sadove, 2005), a clinical trial comparing the use of liposuction to standard surgical reduction mammaplasty has not been conducted, and the procedure has not been accepted as a standard of care.

#### **Definitions**

Intertrigo: A skin condition that occurs in locations where two opposing skin surfaces meet, such as beneath pendulous breasts. Redness, burning, itching, infections, and occasionally skin disintegration and cracking characterize this condition.

Thoracic outlet syndrome: A condition resulting from constant pressure on the area between the neck and shoulder where many nerves and blood vessels are located. Symptoms may include pain, weakness, or numbness in the arm on the affected side.

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#### **History**

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Revised	05/13/2021	Medical Policy & Technology Assessment Committee (MPTAC) review.  Wording on reduction mammoplasty for breast cancer risk reduction added to  Not Medically Necessary statement. Wording on psychological considerations removed from Cosmetic and Not Medically Necessary statement. Description, Discussion/General Information, Coding, References and Websites sections updated.
Revised	02/11/2021	Medical Policy & Technology Assessment Committee (MPTAC) review.  Removed 1 year requirement from criteria I. A and II. A in medically
Reviewed	11/05/2020	necessary statement. MPTAC review. References and Websites sections updated. Reformatted Coding section; added diagnosis codes and updated 19318 with 01/01/2021 descriptor change.
Reviewed	11/07/2019	MPTAC review. References and Websites sections updated.
Reviewed	01/24/2019	MPTAC review. Discussion/General Information, References, and Websites sections updated.
New	01/25/2018	MPTAC review. Initial document development. Moved content of SURG.00086 Reduction Mammaplasty to new clinical utilization management guideline document with the same title.

#### **Appendix**

# Minimum Weight of Breast Tissue Removed, per Breast, as a Function of Body Surface Area Schnur Sliding Scale

Body Surface Area (meters squared)	Minimum weight of tissue to be removed per breast (grams)
1.35	199
1.40	218
1.45	238
1.50	260

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