

Healthcare Operations Utilization Management Protocol Breast Reduction Surgery

Number
SUR018

HEALTH PLAN OF NEVADA, INC. SM SIERRA HEALTH AND LIFE INSURANCE COMPANY, INC. [®]

For Sierra Health-Care Options products, please review plan documents prior to issuing a determination.

Description	After evaluating relevant benefit document language (exclusions or limitations), refer to Coverage sections of this document to determine coverage.
This policy describes the criteria used to evaluate requests for breast reduction surgery.	

Coverage	All reviewers must first identify member eligibility, any federal or state regulatory requirements and the plan benefit coverage prior to use of this policy.
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Commercial, Medicare and Medicaid Coverage Rationale:

- Breast reduction surgery may be determined to be reconstructive when:
 - Proposed breast tissue to be removed plots above the 22nd percentile (see attached table); AND
 - There is evidence of a physiologic functional impairment attributable to macromastia documented by the treating surgeon or from an earlier clinical record; OR
 - All of the following conditions are present:
 - Proposed breast tissue to be removed plots between the 5th and the 22nd percentile (see attachedtable); AND
 - At least 400 grams of tissue is removed from each breast; AND
 - There is documentation of a physiologic functional impairment, which will be resolved by theproposed breast reduction. Evidence of a physiologic functional impairment, which must be attributable to macromastia, may include skin excoriation or upper extremity paresthesia due to brachial plexus compression syndrome or shoulder, neck or back pain.
- Breast reduction surgery is cosmetic when done to improve appearance without significantly improving a physiologic functional impairment. This is the case when no physiologic functional impairment is identified or when the proposed breast tissue to be removed plots below the 5th percentile (see attached table). For more information regarding cosmetic surgery, see policy, *Cosmetic and Reconstructive Surgery - Definitions*.
- Body Surface Decision Chart:
 - This chart may be used to assess the functionality for the procedure
 - If a women plots above the 22 percentile her motivation is medical
 - If a women plots below the 5 percentile her motivation is cosmetic
 - If a women plots between the two data lines her motivation is mixed and will require further documentation.

* These protocols are to be used as guidelines in the decision-making process and do not represent standards of care of any individual patient. They are proprietary documents and may not be copied or distributed without express permission.

Body Surface(m2)	Right Breast (gm) tissue removed	
	Lower 5%	Lower 22%
1.35	127	199
1.40	139	218
1.45	152	238
1.50	166	260
1.55	181	284
1.60	198	310
1.65	216	338
1.70	236	370
1.75	258	404
1.80	282	441
1.85	308	482
1.90	336	527
2.00	401	628
2.05	439	687
2.10	479	750
2.15	523	819
2.20	572	895
2.25	625	978
2.30	682	1,068
2.35	745	1,167
2.40	814	1,275
2.45	890	1,393
2.50	972	1,522
2.55	1,062	1,662

Body Surface Nomogram for both adults and children can be located at
<http://depts.washington.edu/druginfo/Formulary/Measures.pdf>

For Medicare and Medicaid Service Determinations Related to States Outside of Nevada:

Please review Local Coverage Determinations that apply to other states outside of Nevada.

<http://www.cms.hhs.gov/mcd/search>

Research Evidence

Background

Reduction mammoplasty is a frequently requested procedure. Evidence to define clinical criteria for functional breast reduction is weak. Therefore it is difficult to determine when breast reduction surgery is cosmetic.

Heavy breasts change the center of gravity and increase the tension in a woman's neck muscles. Cervical lordosis and thoracic kyphosis may result from abnormally heavy breasts shifting the center

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of gravity. Patients frequently complain of low back pain from lumbar lordosis compensating for thoracic kyphosis necessary to maintain an upright posture. Hypertrophic breast tissue may also cause breast pain and discomfort.

Neurologic symptoms of the upper extremities have been associated with heavy breasts. Three brachial plexus cords pass between the clavicle and the top of the upper ribs, then under the attachment of the pectoralis minor muscle to the coracoid process of the scapula. As the shoulder is pulled forward by the excessive weight of the breasts, the space for the brachial plexus is narrowed. Patients with large breasts may develop difficulty expanding the chest wall due to resistance from the breasts. Patients with respiratory difficulty may be further impaired by the weight of breasts. Dermatologic symptoms may also result from heavy breasts. Intertrigo may result from prolonged sweating between or beneath the breasts. Excessively heavy breasts may also result in surgical sternal wound dehiscence.

The surgical procedure for breast reduction includes reshaping the breast, gland resection and reposition of the nipple-areolar complex. The procedure is usually done under general anesthesia and may be performed in either an inpatient or outpatient setting.

In the past, the use of liposuction in breast reduction surgery has been mainly used as adjunct to for sculpturing or fine contouring to achieve a better cosmetic result. Some authors reported that they do the liposuction first to make surgery of the gland tissue easier. There are newer reports on ultrasound assisted tumescent liposuction performed as stand alone procedure for breast reduction.

Liposuction of the breasts involves a three-stage method. In the first stage, the breasts are filled with a tumescent fluid. In the second stage, a fine micro-cannula is used to suction the fat and fluid in multiple directions around the breast. In stage three, the micro-cannula is passed right under the epidermis, the upper layer of skin, to enhance the skin retraction. This is known as superficial liposculpture. The use of liposuction as the sole procedure for breast reduction may be considered cosmetic. For more information regarding cosmetic surgery, see policy, *Cosmetic and Reconstructive Surgery - Definitions*.

Research

There is no published evidence that defines the normal size and position of the female breast. Bolger, et al, and Serletti, et al, classified macromastia as breast reductions requiring removal of 800 gm/breast. To determine motivation for the breast reduction surgery, Schnur and Hoehn, et al, recorded the height, weight, and amount of breast tissue removed from 591 women. The amount of tissue was plotted against body surface area. The surgeons were then asked to indicate which patients had the surgery for symptomatic, cosmetic and combined medical and cosmetic reasons. The surgeons reported that 78% of the patients had surgery for entirely medical reasons and that 17% were performed for combined cosmetic and medical reasons.

A retrospective study of 61 women who underwent reduction mammoplasty self-reported improvement in, or elimination of neck, back, shoulder and breast pain, grooving from brassiere straps, poor posture, skin irritation, and social embarrassment. Symptom relief and improved body image occurred independently of preoperative body weight as there were few differences found between obese and non-obese women

concerning the resolution of physical symptoms or improvement in body image.

In a study done by Makki, et al, a patient satisfaction survey was sent to 296 patients who had reduction mammoplasty from January 1987 to December 1996. A response rate of 55.4% (164 patients) was attained. The charts of these patients were reviewed retrospectively. The mean age at the time of surgery was 29.7 years and the mean preoperative weight was 166.9 lbs. (75.9 kg.). Seventy-eight respondents listed the relief of physical symptoms of large breasts as their primary reason for the surgery. An average of 1,037 grams of tissue was resected per breast. Ninety-one percent of subjects realized improvement of symptoms and 65% were asymptomatic.

Bruhman and Tschopp conducted a retrospective study of 114 women, evaluating long-term effects of reduction mammoplasties. Average tissue reduction was 1,266 grams and average follow-up interval was 7.7 years. Ninety-one percent of the patients noticed a decrease in shoulder, neck and back pain, and lessening of brassiere shoulder grooves. Nine percent noticed no change at all, and only one patient complained of increased breast pain postoperatively. The authors found a significant correlation between the amount of tissue resected and pain relief after surgery. No correlation was found for either weight gain or follow-up time and regaining of physical complaints.

In a meta-analysis of 29 published studies done by Chadbourne et al, reduction mammoplasty was associated with a statistically significant improvement in physical signs and symptoms. Although there is no conclusion as to the volume of tissue removed which would improve the physical signs and symptoms associated with the macromastia. The mean total removed from bilateral breasts was 1429.4 gm with a range of 100 to 8132 gms.

Sigurdson et al., (2007) stated that breast hypertrophy is a common condition that can be associated with significant morbidity. Symptoms emphasized in the literature include physical problems such as pain, intertrigo, and exercise restrictions. The purpose of this study was to explore the suffering experienced by women with breast hypertrophy and to evaluate the importance of different symptoms. Twenty-one women with breast hypertrophy were divided into five focus groups guided by a facilitator. Open discussion was encouraged to generate a comprehensive list of symptoms experienced by women with breast hypertrophy. Subjects then completed an iterative process to determine the relative importance of each symptom. Conversations were recorded, transcribed, and analyzed using Nvivo software. A weighted list of 45 dominant symptoms was created from an initial pool of 128. Physical pain symptoms predominated in the older age group, whereas younger women expressed more psychological symptoms. Difficulties experienced by these women transcended all aspects of their lives. Back, neck, and shoulder pain were considered most troublesome, followed by exercise difficulties, poor posture, and low self-esteem. This study provides insight into the burden of breast hypertrophy and has implications for the objective assessment of this condition in the clinical setting. 9 Sigurdson et al., 2007)

A study by Findikcioglu et al., (2007) found that macromastia usually is associated with the physical and psychological symptoms reported comprehensively by many studies. Reduction mammoplasty seems to be the most reasonable solution for these symptoms, and many articles have reported improvement of these complaints after surgery. Some authors have postulated that the anatomic mechanisms of postural

aberrations are heavy breasts and related pain symptoms. However, limited numbers of studies have tried to explain the effect of the heavy breasts on the vertebral column. This study enrolled 100 females in four groups according to their breast cup sizes (groups A, B, C, D). All four groups were compared with each other statistically using one-way analysis of variance (ANOVA) followed by a post hoc test according to the body mass index (BMI) as well as the thoracic kyphosis, lumbar lordosis, and sacral inclination angles. The BMI was significantly higher in the D cup-sized breast group. There was a statistically significant difference between groups A and D in terms of the thoracic kyphosis and the lumbar lordosis angles, and between groups B and D in terms of the lumbar lordosis angle. No statistically significant difference was detected between the groups in terms of the sacral inclination angle. Breast size seems to be an important factor that affects posture, especially the thoracic kyphosis and lumbar lordosis angles. (Findikcioglu et al., 2007)

Professional Society

American Society of Plastic Surgeons (ASPS): Recommended Insurance Coverage Criteria for Third-Party Payers-Reduction Mammoplasty (2002)

According to the 2002 position paper by the American Society of Plastic Surgeons, coverage for breast reduction surgery should be based on the documentation of symptoms of macromastia, independent of body weight or amount of breast tissue removed.

References and Resources

Resources

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History/Update Approval

12/6/2007	Medical Technology Assessment Committee
06/26/2009	Corporate Medical Affairs Committee

Coding

The Current Procedural Terminology (CPT) codes and HCPCS codes listed in this policy are for reference purposes only. Listing of a service code in this policy does not imply that the service described by this code is a covered or non-covered health service. Coverage is determined by the benefit document.

CPT codes:

15877	Suction assisted lipectomy; trunk
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19316	Mastopexy
19318	Reduction mammoplasty
19499	Unlisted procedure, breast

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