Title: Breast Reduction for Breast-Related Symptoms

Description/Background

MACROMASTIA
Macromastia, or gigantism, is a condition that describes breast hyperplasia or hypertrophy. Macromastia may result in clinical symptoms such as shoulder, neck, or back pain, or recurrent intertrigo in the mammary folds. Also, macromastia may be associated with psychosocial or emotional disturbances related to the large breast size.

Juvenile Breast Hypertrophy
Juvenile (or virginal) breast hypertrophy is a rare, incapacitating condition where rapid and continued breast growth occurs during puberty. It is often defined as a six-month period of extreme breast enlargement, superseded by a longer period of slower, but sustained breast growth. This enlargement may be unilateral or bilateral and can occur at any time during puberty.1

Treatment
Breast reduction (also referred to as reduction mammaplasty) is a surgical procedure designed to remove a variable proportion of breast tissue to address emotional and psychosocial issues and/or relieve the associated clinical symptoms.

While literature searches have identified many articles that discuss the surgical technique of breast reduction and have documented that breast reduction is associated with relief of physical and psychosocial symptoms,2-10 an important issue is whether breast reduction is a functional need or cosmetic. For some patients, the presence of medical indications is clear-cut: a clear documentation of recurrent intertrigo or ulceration secondary to shoulder grooving. For some patients, the documentation differentiating between a cosmetic and a medically necessary procedure will be unclear. Criteria for medically necessary breast reduction are not well-addressed in the published medical literature.

Some protocols on the medical necessity of breast reduction are based on the weight of removed breast tissue. The basis of weight criteria is not related to the outcomes of surgery, but
to surgeons retrospectively classifying cases as cosmetic or medically necessary. Schnur et al (1991), at the request of third-party payers, developed a sliding scale. This scale was based on survey responses from 92 of 200 solicited plastic surgeons, who reported the height, weight, and amount of breast tissue removed from each a breast from the last 15 to 20 reduction mammoplasties they had performed. Surgeons were also asked if the procedures were performed for cosmetic or medically necessary reasons. The data were then used to create a chart relating the body surface area and the cutoff weight of breast tissue removed that differentiated cosmetic and medically necessary procedures. Based on their estimates, those with a breast tissue removed weight above the 22nd percentile likely had the procedure for medical reasons, while those below the 5th percentile likely had the procedure performed for cosmetic reasons; those falling between the cut points had the procedure performed for mixed reasons.

Schnur (1999) reviewed use of the sliding scale as a coverage criterion and reported that, while many payers had adopted it, many had also misused it. Schnur pointed out that if a payer used weight of resected tissue as a coverage criterion, then if the weight fell below the 5th percentile, the breast reduction would be considered cosmetic; if above the 22nd percentile, it would be considered medically necessary; and if between these cut points, it would be considered on a case-by-case basis. Schnur also questioned the frequent requirement that a woman be within 20% of her ideal body weight. While weight loss might relieve symptoms, durable weight loss is notoriously difficult and might be unrealistic in many cases.

**Regulatory Status:**

Breast reduction is a surgical procedure and, as such, is not subject to regulation by the U.S. Food and Drug Administration.

**Medical Policy Statement**

The safety and effectiveness of breast reduction have been established. It may be considered a useful therapeutic option (and not considered cosmetic) when:

- Individual selection guidelines in this policy are met, or
- Performed in conjunction with medically necessary breast reconstruction for the purposes of attaining breast symmetry*, or
- Performed for gender affirming surgery in biological female-to-male transitions*.

*Refer to the medical policy “Reconstructive Breast Surgery / Management of Implants” or “Transgender Services” for guidelines.
Inclusionary and Exclusionary Guidelines

PATIENT SELECTION GUIDELINES

Patients under the age of 18 years cannot give legal consent for surgery. The parent or legal guardian must support and authorize a reduction mammoplasty (breast reduction). Emancipated minors may be extended individual consideration.

Inclusions:

*** Must meet A, OR must meet both B and C ***

A. Must meet both 1 and 2:
   1. Patient’s breasts are fully grown (ie, breast size stable for approximately one year)
   2. Removal of more than 500 grams of tissue from each breast

   OR

B. One of the following (1 or 2 or 3) must be met:
   1. Pain
      a. Documented pain in the neck and/or shoulders or postural backache which must be of long-standing duration, AND
      b. Failure of conservative therapy (eg, an appropriate support bra, exercises, heat/cold treatments, non-steroidal anti-inflammatory agents or muscle relaxants)
   2. Shoulder grooving
   3. Recurrent intertrigo between the breasts and the chest wall

   AND

C. Both of the following criteria must be met:
   1. Individuals breasts are fully grown (ie, breast size stable for approximately one year)
   2. The amount of tissue to be removed from each breast must be greater than or equal to the 22nd percentile on the Schnur Scale.*

*If one breast meets the tissue amount based on the Schnur Scale, (even if the other breast does not), this criterion is met.

If one breast meets the Schnur scale criteria, and all other criteria for breast reduction are met; breast tissue may be removed from the other breast in order to achieve symmetry.

The Schnur Sliding Scale (see below) is used by physicians to evaluate individuals being considered for breast reduction surgery.

Body surface area, along with average weight of breast tissue removed is incorporated into the chart. If the individual's body surface area and weight of breast tissue removed fall below the 22nd percentile, then the surgery is not medically necessary. If the individual's body surface area and weight of breast tissue removed is above the 22nd percentile, then the surgery is considered medically necessary if other applicable criteria are met.

*Calculation of Body Surface Area

Body surface area = the square root of height (cm) times weight (kg) divided by 3600.
To convert pounds to kilograms, multiply pounds by 0.45.
To convert inches to meters, multiply inches by .0254.
To calculate body surface area (BSA) see:
< http://www-users.med.cornell.edu/~spon/picu/calc/bsacalc.htm >

<table>
<thead>
<tr>
<th>Body Surface Area (in meters squared)*</th>
<th>Lower 22nd percentile (Grams to be removed per breast)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.35</td>
<td>199</td>
</tr>
<tr>
<td>1.40</td>
<td>218</td>
</tr>
<tr>
<td>1.45</td>
<td>238</td>
</tr>
<tr>
<td>1.50</td>
<td>260</td>
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<tr>
<td>1.55</td>
<td>284</td>
</tr>
<tr>
<td>1.60</td>
<td>310</td>
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<tr>
<td>1.65</td>
<td>338</td>
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<tr>
<td>1.70</td>
<td>370</td>
</tr>
<tr>
<td>1.75</td>
<td>404</td>
</tr>
<tr>
<td>1.80</td>
<td>441</td>
</tr>
<tr>
<td>1.85</td>
<td>482</td>
</tr>
<tr>
<td>1.90</td>
<td>527</td>
</tr>
<tr>
<td>1.95</td>
<td>575</td>
</tr>
<tr>
<td>2.00</td>
<td>628</td>
</tr>
<tr>
<td>2.05</td>
<td>687</td>
</tr>
<tr>
<td>2.10</td>
<td>750</td>
</tr>
</tbody>
</table>

Exclusions:
Breast reduction is not covered for either of the following indications because it is considered cosmetic in nature and not medically necessary:

- Surgery is being performed to treat psychological symptomatology or psychosocial complaints, in the absence of significant physical, objective signs.
- Surgery is being performed for the sole purpose of improving appearance.

**CPT/HCPCS Level II Codes** *(Note: The inclusion of a code in this list is not a guarantee of coverage. Please refer to the medical policy statement to determine the status of a given procedure)*

**Established codes:**

19318

**Other codes (investigational, not medically necessary, etc.):**

N/A

*Note: Individual policy criteria determine the coverage status of the CPT/HCPCS code(s) on this policy. Codes listed in this policy may have different coverage positions (such as established or experimental/investigational) in other medical policies.*

**Rationale**

Evidence reviews assess the clinical evidence to determine whether the use of a technology improves the net health outcome. Broadly defined, health outcomes are length of life, quality of life, and ability to function, including benefits and harms. Every clinical condition has specific outcomes that are important to patients and to managing the course of that condition. Validated outcome measures are necessary to ascertain whether a condition improves or worsens; and whether the magnitude of that change is clinically significant. The net health outcome is a balance of benefits and harms.

To assess whether the evidence is sufficient to draw conclusions about the net health outcome of a technology, 2 domains are examined: the relevance and the quality and credibility. To be relevant, studies must represent 1 or more intended clinical use of the technology in the intended population and compare an effective and appropriate alternative at a comparable intensity. For some conditions, the alternative will be supportive care or surveillance. The quality and credibility of the evidence depend on study design and conduct, minimizing bias and confounding that can generate incorrect findings. The randomized controlled trial (RCT) is preferred to assess efficacy; however, in some circumstances, nonrandomized studies may be adequate. RCTs are rarely large enough or long enough to capture less common adverse events and long-term effects. Other types of studies can be used for these purposes and to assess generalizability to broader clinical populations and settings of clinical practice.

Promotion of greater diversity and inclusion in clinical research of historically marginalized groups (e.g., People of Color [African-American, Asian, Black, Latino and Native American]; LGBTQIA [Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual]; Women; and People with Disabilities [Physical and Invisible]) allows policy populations to be more reflective of and findings more applicable to our diverse members. While we also strive to use inclusive language related to these groups in our policies, use of gender-specific nouns (e.g., women,
men, sisters, etc.) will continue when reflective of language used in publications describing study populations.

BREAST REDUCTION FOR MACROMASTIA - EFFICACY IN REDUCING SYMPTOMS

Clinical Context and Therapy Purpose
The purpose of breast reduction (also referred to as reduction mammaplasty) is to provide a treatment option that is an alternative to or an improvement on existing therapies, such as nonsurgical treatment, in patients with symptomatic macromastia.

The following PICO was used to select literature to inform this review.

Populations
The relevant population of interest is individuals with symptomatic macromastia, or gigantomastia, a condition that describes breast hyperplasia or hypertrophy.

Interventions
The therapy being considered is breast reduction, a surgical procedure that removes a variable proportion of breast tissue to relieve the associated clinical symptoms and address emotional and psychosocial issues related to large breast size.

Comparators
Comparators of interest include nonsurgical treatment which primarily involves analgesia, clothing modifications, physical therapy and other measures to address symptoms.

Outcomes
The general outcomes of interest are symptoms and functional outcomes. Symptoms of symptomatic macromastia can include mastalgia, pain in the shoulders, back, and neck, and recurrent intertrigo in the mammary fold. The condition may also be associated with psychosocial or emotional disturbances.

Study Selection Criteria
Methodologically credible studies were selected using the following principles:
• To assess efficacy outcomes, comparative controlled prospective trials were sought, with a preference for RCTs;
• In the absence of such trials, comparative observational studies were sought, with a preference for prospective studies.
• To assess longer term outcomes and adverse events, single-arm studies that capture longer periods of follow-up and/or larger populations were sought.
• Studies with duplicative or overlapping populations were excluded.

Review of Evidence
Randomized Controlled Trials
Sabino Neto et al (2008) assessed functional capacity for 100 patients, ages 18 to 55 years, who were randomized to reduction mammaplasty or to waiting list control.8 Forty-six patients from each group completed the study. At baseline and 6 months later, patients were assessed for functional capacity using the Roland-Morris Disability Questionnaire (0=best performance, 24=worst performance) and for pain using a visual analog scale (VAS). The breast reduction
mammaplasty group showed improvement in functional status, with an average score of 5.9 preoperatively and 1.2 within 6 months postoperatively (p<.001 for pre-post comparison within the mammaplasty group) versus an unchanged average score of 6.2 in the control group on the first and second evaluations. Additionally, pain in the lower back decreased on the VAS from an average of 5.7 preoperatively to 1.3 postoperatively (p<.001 for pre-post comparison within the mammaplasty group) versus VAS average scores in the control group of 6.0 and 5.3 on the first and second evaluations, respectively (p=not significant).

Saariniemi et al (2008) reported on the quality of life (QOL) and pain in 82 patients randomized to reduction mammaplasty or a nonoperative group and evaluated at baseline and 6 months later. The authors reported that the mammaplasty group had significant improvements in QOL from baseline to 6 months, as measured by the Physical Component Summary score of the 36-Item Short-Form Health Survey (SF-36; change, +9.7 versus +0.7, p<.001), the Utility Index score (SF-6D; change, +17.5 versus +0.6), the index score of QOL (SF-15D; change, +8.6 versus +0.06, p<.001), and SF-36 Mental Component Summary score (change, +7.8 versus -1.0, p<.002). There were also improvements in breast-related symptoms from baseline to 6 months, as measured by Finnish Breast-Associated Symptoms questionnaire scores (-47.9 versus -3.5, p<.001), and Finnish Pain Questionnaire scores (-21.5 versus -1.0, p<.001).

Iwuagwu et al (2006) reported on 73 patients randomized to reduction mammaplasty within 6 weeks or after a 6-month waiting period to assess lung function. All patients had symptoms related to macromastia. Postoperative lung function correlated with the weight of breast tissue removed, but there were no significant improvements in any lung function parameters for the mammaplasty group compared with the control group.

Key trials are reported in Tables 1 and 2 below.

Table 1. Summary of Key Randomized Controlled Trial Characteristics

<table>
<thead>
<tr>
<th>Study; Trial</th>
<th>Countries</th>
<th>Sites</th>
<th>Dates</th>
<th>Participants</th>
<th>Interventions</th>
<th>Comparator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sabino Neto (2008)</td>
<td>Brazil</td>
<td>1</td>
<td>2002-2004</td>
<td>Female patients (age 18 to 55 yrs)</td>
<td>Reduction mammaplasty (n=50)</td>
<td>Waiting list control (n=50)</td>
</tr>
<tr>
<td>Saarimiemi (2008)</td>
<td>Finland</td>
<td>1</td>
<td>NR</td>
<td>Female patients with symptomatic breast hypertrophy (n=82)</td>
<td>Reduction mammaplasty (n=40)</td>
<td>Non-operative control (n=42)</td>
</tr>
<tr>
<td>NR: not reported</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Summary of Key Randomized Controlled Trial Results

<table>
<thead>
<tr>
<th>Study</th>
<th>Change (Pre- to Postoperative) in RSES</th>
<th>Change (Pre- to Postoperative) in RMDQ</th>
<th>Change (Pre- to Postoperative) in VAS</th>
<th>Change (Pre- to Postoperative) in SF-36 Utility Index Score</th>
<th>Change (Pre- to Postoperative) in Mental Summary Score</th>
<th>Change (Pre- to Postoperative) in Pain Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sabino Neto (2008)</td>
<td>8.9 to 4.9 (p&lt;0.001)</td>
<td>5.9 to 1.2 (p&lt;0.001)</td>
<td>5.7 to 1.3 (p&lt;0.001)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mammaplasty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>9.1 to 9.0 (p&gt;0.999)</td>
<td>6.2 to 6.2 (NR)</td>
<td>6.0 to 5.3 (p&lt;0.001)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saarimiemi (2008)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The purpose of the limitations tables (Table 3 and 4) is to display notable limitations identified in each study. This information is synthesized as a summary of the body of evidence following each table and provides the conclusions on the sufficiency of evidence supporting the position statement.

### Table 3. Study Relevance Limitations

<table>
<thead>
<tr>
<th>Study</th>
<th>Population</th>
<th>Intervention</th>
<th>Comparator</th>
<th>Outcomes</th>
<th>Duration of Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sabino Neto (2008)</td>
<td></td>
<td></td>
<td>3. Comparator group on waiting list without additional intervention described</td>
<td>5. Clinical significant difference not prespecified</td>
<td></td>
</tr>
<tr>
<td>Saariniemi (2008)</td>
<td></td>
<td></td>
<td>3. Comparator group did not receive surgery and had no other intervention described</td>
<td>5. Clinical significant difference not prespecified</td>
<td></td>
</tr>
</tbody>
</table>

The study limitations stated in this table are those notable in the current review; this is not a comprehensive gaps assessment.

- Population key: 1. Intended use population unclear; 2. Clinical context is unclear; 3. Study population is unclear; 4. Study population not representative of intended use.
- Intervention key: 1. Not clearly defined; 2. Version used unclear; 3. Delivery not similar intensity as comparator; 4. Not the intervention of interest.
- Comparator key: 1. Not clearly defined; 2. Not standard or optimal; 3. Delivery not similar intensity as intervention; 4. Not delivered effectively.
- Outcomes key: 1. Key health outcomes not addressed; 2. Physiologic measures, not validated surrogates; 3. No CONSORT reporting of harms; 4. Not established and validated measurements; 5. Clinical significant difference not prespecified; 6. Clinical significant difference not supported.

### Table 3. Study Design and Conduct Limitations

<table>
<thead>
<tr>
<th>Study</th>
<th>Allocation</th>
<th>Blinding</th>
<th>Selective Reporting</th>
<th>Follow-Up</th>
<th>Power</th>
<th>Statistical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sabino Neto (2008)</td>
<td>1, 2, 3</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
<td>3. Some p-values not reported</td>
</tr>
<tr>
<td>Saariniemi (2008)</td>
<td>1, 2, 3</td>
<td>No</td>
<td>No</td>
<td>1. 22% of patients lost to follow-up</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The evidence gaps stated in this table are those notable in the current review; this is not a comprehensive gaps assessment.

- Follow-Up key: 1. High loss to follow-up or missing data; 2. Inadequate handling of missing data; 3. High number of crossovers; 4. Inadequate handling of crossovers; 5. Inappropriate exclusions; 6. Not intent to treat analysis (per protocol).
- Power key: 1. Power calculations not reported; 2. Power not calculated for primary outcome; 3. Power not based on clinically important difference.
- Statistical key: 1. Intervention is not appropriate for outcome type: (a) continuous; (b) binary; (c) time to event; 2. Intervention is not appropriate for multiple observations per patient; 3. Confidence intervals and/or p values not reported; 4. Comparative treatment effects not calculated.
Observational Studies
Singh and Losken (2012) reported on a systematic review of studies reporting outcomes after reduction mammoplasty. In 7 studies reporting on physical symptoms (n range, 11 to 92 patients), reviewers found reduction mammoplasty improved functional outcomes including pain, breathing, sleep, and headaches. Additional psychological outcomes noted included improvements in self-esteem, sexual function, and quality of life. Torresetti et al (2022) conducted another systematic review to examine the potential association between bilateral breast reduction and improvement in lung function in women with macromastia. The review included 15 studies published from 1974 to 2018 (n range, 1 to 50 patients). The findings showed that reduction mammoplasty can lead to changes in objective respiratory parameters, such as spirometric tests or arterial blood gas measurements, but the clinical significance of these changes was unclear.

Hernanz et al (2016) reported on a descriptive cohort study of 37 consecutive obese patients who underwent reduction mammoplasty for symptomatic macromastia, along with 37 age-matched women hospitalized for short-stay surgical procedures. In the preoperative state, SF-36 physical health component subscore was significantly lower for patients with symptomatic macromastia (40) than for age-matched controls (53; P<.001), with differences in 5 of the 8 subscales. At 18 months postprocedure, there were no significant differences in any SF-36 subscores except the body pain subscale between patients who had undergone reduction mammoplasty and age-matched controls.

Kerrigan et al (2002) published the results of the BRAVO (Breast Reduction: Assessment of Value and Outcomes) study, a registry of 179 women undergoing reduction mammoplasty. Women were asked to complete quality of life questionnaires and a physical symptom count both before and after surgery. The physical symptom count focused on the number of symptoms present that were specific to breast hypertrophy and included upper back pain, rashes, bra strap grooves, neck pain, shoulder pain, numbness, and arm pain. Also, the weight and volume of resected tissue were recorded. Results were compared with a control group of patients with breast hypertrophy, defined as size DD bra cup, and normal-sized breasts, who were recruited from the general population. The authors proposed that the presence of 2 physical symptoms might be an appropriate cutoff for determining medical necessity for breast reduction. For example, while 71.6% of the hypertrophic controls reported none or 1 symptom, only 12.4% of those considered surgical candidates reported none or 1 symptom. This observation is difficult to evaluate because the study did not report how surgical candidacy was determined. The authors also reported that none of the traditional criteria for determining medical necessity for breast reduction surgery (height, weight, body mass index, bra cup size, or weight of resected breast tissue) had a statistically significant relation with outcome improvement. The authors concluded that the determination of medical necessity should be based on patients’ self-reported symptoms rather than more objectively measured criteria (eg, weight of excised breast tissue).

Adverse Events
Thibaudeau et al (2010), conducted a systematic review to evaluate breastfeeding after reduction mammoplasty. After a review of literature from 1950 through 2008, reviewers concluded that reduction mammoplasty does not reduce the ability to breastfeed. In women
who have had reduction mammoplasty, breastfeeding rates were comparable in the first month postpartum to rates in the general population in North America.

Chen et al (2011) reported on a review of claims data to compare complication rates after breast surgery in 2,403 obese and 5,597 nonobese patients. Of these patients, breast reduction was performed in 1,939 (80.7%) in the study group and in 3,569 (63.8%) in the control group. Obese patients had significantly more claims for complications within 30 days after breast reduction surgery (14.6%) than nonobese patients (1.7%; p<.001). Complications included inflammation, infection, pain, and seroma/hematoma development. Shermak et al (2011) reported on a review of claims data comparing complication rates by age after breast reduction surgery in 1,192 patients. Infection occurred more frequently in patients older than 50 years of age (odds ratio, 2.7; p=.003). Additionally, women older than 50 years experienced more wound healing problems (odds ratio, 1.6; p=.09) and reoperative wound débridement (odds ratio, 5.1; p=.07). Other retrospective evaluations (2013, 2014) of large population datasets have reported increased incidences of perioperative and postoperative complications with high body mass index.

Section Summary: Breast Reduction for Macromastia-Efficacy in Reducing Symptoms
Systematic reviews, randomized trials, and observational studies have shown that several measures of function and quality of life improve after breast reduction.

Summary of Evidence
For individuals who have symptomatic macromastia who receive breast reduction, the evidence includes systematic reviews, randomized controlled trials, cohort studies, and case series. Relevant outcomes are symptoms and functional outcomes. Studies have indicated that reduction mammoplasty is effective at decreasing breast-related symptoms such as pain and discomfort. There is also evidence that functional limitations related to breast hypertrophy are improved after breast reduction. These outcomes are achieved with acceptable complication rates. The evidence is sufficient to determine that the procedure results in an improvement in the net health outcome.

Juvenile Breast Hypertrophy
Wolfswinkle et al (2013) discussed hyperplastic breast anomalies in the adolescent, including juvenile breast hypertrophy. The authors reviewed treatment for this rare but alarming condition. Surgical options include reduction mammoplasty. The authors stressed that confirmation of breast growth stabilization is recommended as surgery in the active growth phase has been associated with recurrence of breast enlargement postoperatively.

SUPPLEMENTAL INFORMATION

Practice Guidelines and Position Statements
The purpose of the remaining sections in Supplemental Information is to provide reference material regarding existing practice guidelines and position statements, U.S. Preventive Services Task Force Recommendations and Medicare National Coverage Decisions and registered, ongoing clinical trials. Inclusion in the Supplemental Information does not imply endorsement and information may not necessarily be used in formulating the evidence review conclusions.

Guidelines or position statements will be considered for inclusion in Supplemental Information if they were issued by, or jointly by, a US professional society, an international society with US
representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

**American Society of Plastic Surgeons**

In 2011, the American Society of Plastic Surgeons (ASPS) issued practice guidelines and a companion document on criteria for third-party payers for reduction mammaplasty. Based on high quality evidence, the ASPS strongly recommends that "postmenarche female patients presenting with breast hypertrophy should be offered reduction mammaplasty surgery as first-line therapy over nonoperative therapy based solely on the presence of multiple symptoms rather than resection weight." The guideline goes on to state that "reduction mammaplasty surgery is considered standard of care for symptomatic breast hypertrophy." The companion document notes that medical records should document the symptoms associated with the hypertrophy the patient has experienced, and lists the following:

- "Documentation may include pain that patient experiences in the neck, back, or breasts related to movement
- Difficulties in daily activities such as grocery shopping, banking, using transportation, preparing meals, feeding, showering, etc
- Documentation of any secondary complications or infections that may have occurred as a result of hypertrophy or macromastia including intertrigo, chronic rash, cervicalgia, dorsalgia, or kyphosis
- Documentation of prior procedures or therapies may be included but not required for approval
- Photographs demonstrating the patient’s breast appearance, possible shoulder grooves and kyphosis can be included in the medical documentation
- Significant scientific evidence supports non-operative therapies should not be required prior to approval of the procedure."

**U.S. Preventive Services Task Force Recommendations**

Not applicable

**Ongoing and Unpublished Clinical Trials**

A search of ClinicalTrials.gov did not identify any ongoing or unpublished trials that would likely influence this review.

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**Government Regulations**

**National:**

There is no national coverage determination (NCD) on this topic. In the absence of an NCD, coverage decisions are left to the discretion of the local Medicare carriers.

**Local:**

Wisconsin Physicians Service Insurance Corporation (WPS)

Local Coverage Determination (LCD): Cosmetic and Reconstructive Surgery (L39051)

Original effective date 11/14/2021

[Note: following is information in the LCD that is specific to breast reduction]
Medical necessity for a breast reduction is limited to circumstances in which:

- There are signs and/or symptoms resulting from the enlarged breasts (macromastia) that have not responded adequately to non-surgical interventions,
- 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.

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

- Determining the macromastia is not due to an active endocrine or metabolic process.
- 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.
- Determining that dermatologic signs and/or symptoms are refractory to, or recurrent following, a completed course of medical management.

A medically reasonable and necessary breast reduction could be indicated in the presence of significantly enlarged breasts and the presence of at least one of the following signs and/or symptoms:

- Back, neck or shoulder pain from macromastia and unrelieved by 6 months of:
  - Conservative analgesia,
  - Supportive measures (garment, etc.),
  - Physical Therapy, or
- Significant arthritic changes in the cervical or upper thoracic spine, optimally managed with persistent symptoms and/or significant restriction of activity, or
- Intertriginous maceration or infection of the inframammary skin refractory related to dermatologic measures.
- Permanent shoulder grooving with skin irritation by supporting garment (bra strap).

The amount of breast tissue to be removed must be proportional to the body surface area (BSA) per the Schnur18 scale below. If the individual’s body surface area and weight of breast tissue removed fall above the 22nd 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.

**Schnur Scale:**

<table>
<thead>
<tr>
<th>Body Surface Area (m²)</th>
<th>Average grams of tissue per breast to be removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.40-1.50</td>
<td>218-260</td>
</tr>
<tr>
<td>1.51–1.60</td>
<td>261-310</td>
</tr>
<tr>
<td>1.61-1.70</td>
<td>311-370</td>
</tr>
</tbody>
</table>
Wisconsin Physicians Service Insurance Corporation (WPS)  
Local Coverage Determination (LCD): Cosmetic and Reconstructive Surgery (L34698)  
Original effective date 10/01/2015  
Revision effective date 01/01/2021; Revision ending date 11/13/2021  
Retirement Date 11/13/2021

(The above Medicare information is current as of the review date for this policy. However, the coverage issues and policies maintained by the Centers for Medicare & Medicare Services [CMS, formerly HCFA] are updated and/or revised periodically. Therefore, the most current CMS information may not be contained in this document. For the most current information, the reader should contact an official Medicare source.)

Related Policies

- Reconstructive Breast Surgery/Management of Breast Implants  
- Prophylactic Mastectomy (Retired)
- Transgender Services

References

5. Glatt BS, Sarwer DB, O'Hara DE et al. A retrospective study of changes in physical symptoms and body image after reduction mammoplasty. Plast Reconstr Surg 1999; 103(1):76-82; discussion 83-5. PMID 9915166

The articles reviewed in this research include those obtained in an Internet based literature search for relevant medical references through 3/28/23, the date the research was completed.
<table>
<thead>
<tr>
<th>Policy Effective Date</th>
<th>BCBSM Signature Date</th>
<th>BCN Signature Date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/27/02</td>
<td>6/27/02</td>
<td>6/27/02</td>
<td>Joint policy established</td>
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<tr>
<td>7/20/04</td>
<td>7/20/04</td>
<td>6/30/04</td>
<td>Routine maintenance</td>
</tr>
<tr>
<td>3/23/06</td>
<td>3/23/06</td>
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</tr>
<tr>
<td>7/1/08</td>
<td>5/17/08</td>
<td>5/18/08</td>
<td>Routine maintenance</td>
</tr>
<tr>
<td>11/1/08</td>
<td>8/19/08</td>
<td>9/23/08</td>
<td>Criteria updated</td>
</tr>
<tr>
<td>3/1/09</td>
<td>12/9/08</td>
<td>12/30/08</td>
<td>Routine maintenance, added weight/height chart, BMI calculator and link</td>
</tr>
<tr>
<td>9/1/10</td>
<td>6/15/10</td>
<td>6/15/10</td>
<td>Criteria Updated, removed BMI calculator and link</td>
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<td>9/1/11</td>
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<tr>
<td>7/1/13</td>
<td>4/16/13</td>
<td>4/22/13</td>
<td>Routine maintenance; reformatted description, rationale and references to mirror BCBSA. Title changed from “Breast Reduction Mammaplasty” to “Reduction Mammaplasty for Breast-Related Symptoms”.</td>
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<tr>
<td>11/1/14</td>
<td>8/21/14</td>
<td>8/25/14</td>
<td>Routine maintenance</td>
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<tr>
<td>7/1/16</td>
<td>4/19/16</td>
<td>4/19/16</td>
<td>Routine maintenance</td>
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<td>7/1/17</td>
<td>4/18/17</td>
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<tr>
<td>7/1/18</td>
<td>4/17/18</td>
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<td>Routine maintenance</td>
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<tr>
<td>7/1/19</td>
<td>6/24/19</td>
<td></td>
<td>Routine maintenance Revision to inclusions: statement regarding reduction mammaplasty surgery in patients under the age of 18 years; criterion for minimum tissue removal of 1000mg without requirement of functional issues changed to 500gm; clarification of criteria under functional issues/conservative therapies; “breasts are fully grown” further defined to “breast size stable over one year”.</td>
</tr>
<tr>
<td>9/1/20</td>
<td>6/16/20</td>
<td></td>
<td>Routine maintenance</td>
</tr>
</tbody>
</table>
Changes to inclusions: only one functional issue is required; if one breast meets criteria per Schnur scale, that criterion is met. If one breast meets all criteria, other breast may be reduced for symmetry. Addition: description of adolescent macromastia, Ref 23

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>9/1/21</td>
<td>6/15/21</td>
<td>Routine maintenance Code 19318 was revised Verbiage changes in title, medical policy statement, background section, summary from “reduction mammaplasty” to “breast reduction”.</td>
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<td>9/1/22</td>
<td>6/21/22</td>
<td>Routine maintenance.</td>
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<tr>
<td>9/1/23</td>
<td>6/13/23</td>
<td>Routine maintenance (jf) Vendor managed NA Ref 14 added</td>
</tr>
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</table>

Next Review Date: 2nd Qtr, 2023
BLUE CARE NETWORK BENEFIT COVERAGE
POLICY: BREAST REDUCTION FOR BREAST-RELATED SYMPTOMS

Coverage Determination:

<table>
<thead>
<tr>
<th>Plan Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial HMO (includes Self-Funded groups unless otherwise specified)</td>
<td>Covered; policy criteria apply.</td>
</tr>
<tr>
<td>BCNA (Medicare Advantage)</td>
<td>See Government Regulations section.</td>
</tr>
<tr>
<td>BCN65 (Medicare Complementary)</td>
<td>Coinsurance covered if primary Medicare covers the service.</td>
</tr>
</tbody>
</table>

Administrative Guidelines:

- The member's contract must be active at the time the service is rendered.
- Coverage is based on each member's certificate and is not guaranteed. Please consult the individual member's certificate for details. Additional information regarding coverage or benefits may also be obtained through customer or provider inquiry services at BCN.
- The service must be authorized by the member's PCP except for Self-Referral Option (SRO) members seeking Tier 2 coverage.
- Services must be performed by a BCN-contracted provider, if available, except for Self-Referral Option (SRO) members seeking Tier 2 coverage.
- Payment is based on BCN payment rules, individual certificate and certificate riders.
- Appropriate copayments will apply. Refer to certificate and applicable riders for detailed information.
- CPT - HCPCS codes are used for descriptive purposes only and are not a guarantee of coverage.