



ASPS Recommended Insurance Coverage Criteria for Third-Party Payers

Reduction Mammoplasty

Approved by the Executive Committee of the American Society of Plastic Surgeons®, May 2011.
Updated and Reaffirmed: March 2021

BACKGROUND

The American Society of Plastic Surgeons convened a multi-disciplinary expert workgroup to complete a systematic, rigorous update of the 2012 clinical practice guideline in 2020¹.

Reduction mammoplasty is a procedure performed for symptomatic breast hypertrophy in more than 100,000 patients a year². There is an extensive body of evidence demonstrating the efficacy of reduction mammoplasty in reducing both physical and psychological symptoms in patients with symptomatic breast hypertrophy.^{3, 4, 5, 6, 7, 8, 9, 10}

HISTORY

Prior to the 1990s, few health care insurance companies compensated surgeons for reduction mammoplasty as they considered it a cosmetic procedure. As a result, the American Society of Plastic and Reconstructive Surgeons sent several members to visit the Medical Directors of a number of major health care insurance companies. The unanimous response from the Medical Directors was that there was nothing in the medical literature substantiating the health benefit of reduction mammoplasty. As a result of these findings, Schnur and Hoehn³⁰ published a study suggesting criteria for insurance coverage. The suggested criteria became known as “The Schnur Sliding Scale.” A large number of insurance companies adopted the Schnur Sliding Scale as their standard for payment for reduction mammoplasty.

Many of these companies continue to use this sliding scale to this day. To prove medical necessity, Schnur and Schnur³², reviewed a large number of patients at the Mayo Clinic who had undergone reduction mammoplasty. In this study, 94.2% of patients reported that the procedure was completely or very successful in relieving their symptoms. In 2002 Collins, Kerrigan, et al.⁴, reported that reduction mammoplasty significantly improved the symptoms of macromastia. Their surprise findings were that the patients received the same relief of symptoms regardless of body size or amount of breast tissue removed. An article published in 2002 by Kerrigan, Collins, Kim, Schnur, Wilkins, Cunningham, and Lowery²¹ recommended that a constellation of symptoms of macromastia be used as criteria for Insurance coverage by third-party payers instead of the Schnur Sliding Scale. The Schnur Sliding Scale made the assumption that the larger the macromastia, the more severe the symptoms. In their 2002 article, Collins, Kerrigan, et al. ⁴ proved this assumption untrue. The recommendation for insurance coverage by third-party payers is a modification of the Kerrigan et al. article²¹ and, therefore, should be used in place of the Schnur Sliding Scale.

DEFINITIONS

Symptomatic breast hypertrophy is a medical condition that causes a significant health burden for patients.

^{11, 12, 13} There is no evidence that non-operative management provides effective long-term relief of symptoms.

Instead, patients have an increased obesity risk associated with difficulty exercising due to breast size impacting posture and upper spinal movement. Symptomatology may also require chronic administration of pain medication, emergency room evaluations, physical therapy, and missed work and/or school days. ^{11, 12, 13}

Reduction mammoplasty surgery is considered standard of care for symptomatic breast hypertrophy. Several studies have demonstrated physical and psychological benefits, including improvement in degenerative spine disease, pain, functional capacity, depression, patient satisfaction, psychosocial, and sexual well-being^{14, 3, 4, 5, 15, 6, 7, 8, 9, 10}. Quantifiable data using Breast-Q Reduction surveys have shown validated, improved outcomes and satisfaction among women undergoing reduction mammoplasty^{16, 17, 13}.

Operative Treatment is Effective

Two studies reviewed compare early surgery versus delayed surgery^{18, 8}. The first high quality prospective randomized study examined the effect of bilateral reduction mammoplasty on depression and anxiety¹⁸. Women were randomized to either early operation (n= 36) or delayed (n=37). The presence of clinical anxiety and depression were assessed using the Hospital Anxiety Depression Score (HADS). Those women who had earlier surgery (within six weeks of assessment) demonstrated significantly less ($p<0.001$) clinical anxiety and depression than those receiving delayed surgery¹⁸.

An RCT using a modification of the Beck Depression Inventory demonstrated a reduction of depression and anxiety after reduction mammoplasty (moderate quality)⁸. Details from this study include significant increases in self-esteem ($p=0.03$), reduced depression ($p<0.01$) and anxiety ($p=0.04$) in women who had surgery (n=29) versus conservative treatment (n = 35).

Another high-quality randomized study examined the benefits to quality of life following bilateral reduction mammoplasty using multiple Quality of Life validated self-reported scales⁶. The delayed surgery (control group) underwent a trial of non-surgical treatment that included medication, use of special brassieres and physical therapy (a handout on upper body exercises to be completed three times per week). Thirty-six women underwent early surgery. The early surgery group demonstrated significant improvements in emotional stability and extroversion when compared to the control group (n=37). There was strong support for a recommendation on the use of validated Quality of Life questionnaires to assess patient experience of care and emotional well-being which were supported by the previous ASPS reduction mammoplasty guideline¹⁹

Resection Weight:

Numerous studies have demonstrated the lack of correlation between the amount of weight resection and symptomatic relief^{4, 20, 21, 22, 23}. In two studies, Spector et al^{9, 10} found that a reduction mammoplasty removing less than 500 gm of tissue offered symptom relief and improved quality of life. The Breast Reduction Assessment of Value and Outcomes (BRAVO) study compared quality of life outcomes in post-operative patients with resection weights less

than 500 gm and patients with resection weights greater than 500 gm. The two groups experienced equivalent improvement across five validated measures of health burden²¹. The evidence demonstrates that resection weight does not accurately predict patient-oriented outcomes such as alleviation of pain and related symptoms, and should not be the primary determinant of medical necessity^{24, 3, 4, 25, 20, 26, 9, 10, 23, 27}

Evidence indicates that women, across a wide range of breast sizes, experience similar benefits from reduction mammoplasty. According to two prospective studies, women of varying breast sizes, experience similar preoperative symptoms and similar postoperative relief and quality of life improvement regardless of the total resection volume.^{21, 28} Even though Reduction Mammoplasty coverage varies by insurance carrier, medical necessity and patient discomfort level should be taken into account when denying/approving the procedure.

POLICY

Based on the thorough evidence review leading to the strong recommendation in the revised clinical practice guideline, it is clear that reduction mammoplasty is extremely effective at reducing hypertrophy related symptoms and improving postoperative quality of life. Insurance coverage criteria for symptomatic breast hypertrophy should be based upon documentation of at least two symptoms (see below) regardless of body weight or weight of breast tissue removed. The documentation of at least two symptoms is supported by a prospective study examining the medical necessity of reduction mammoplasty. Of women presenting for surgical correction of symptomatic breast hypertrophy, 87.6% listed at least two out of seven breast-related physical symptoms occurring all or most of the time, as compared with 2% of women with normal breast size (C or smaller).²¹

Documentation:

Documentation is key when supporting coverage for breast reduction mammoplasty. The Medical Record should document the symptoms associated with the hypertrophy the patient has experienced.

Records should include the presenting symptoms.

- 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.

ICD-10 Coding:

Physicians should document the severity of the symptoms of breast hypertrophy (ICD-10-CM: N62) and impact on health related quality of life as measured by a breast specific questionnaire which includes at least two of the following signs/symptoms:

- Chronic breast pain (ICD-10-CM: N64.4) due to weight of the breasts
- Intertrigo (ICD-10-CM: L30.4) unresponsive to medical management
- Upper back, neck, and shoulder pain (ICD-10-CM: M54.6, M54.2, M53.82, M25.511 –M25.519)
- Backache, unspecified (ICD-10-CM: M54.89, M54.96)
- Thoracic kyphosis, acquired (ICD-10-CM: M40.04, M40.14, M40.204, M40.294)
- Shoulder grooving from bra straps (ICD-10-CM: M95.4)

- Upper extremity paresthesia (ICD-10-CM: R20.0-R20.9)due to brachial plexus compression syndrome secondary to the weight of the breasts being transferred to the shoulder strap area
- Headache (ICD-10-CM: R51)
- Congenital breast deformity (ICD-10-CM: Q38.0-Q38.8)

CPT Coding:

- 19318 Unilateral reduction mammoplasty
- 19318-50 Opposite breast reduction mammoplasty

Figure 1. American Society of Plastic Surgeons Strength of Aggregate Evidence and Recommendations

<p>Strong (High Quality) Evidence Evidence from two or more “High” quality studies with consistent findings for recommending for or against the intervention.</p>	<p>Strong Recommendation</p>	<p>OPTION</p>
<p>Moderate Quality Evidence Evidence from two or more “Moderate” quality studies with consistent findings, or evidence from a single “High” quality study for recommending for or against the intervention.</p>	<p>Moderate Recommendation</p>	
<p>Low Quality Evidence Evidence from one or more “Low” quality studies with consistent findings or evidence from a single “Moderate” quality study recommending for or against the intervention.</p>	<p>Weak Recommendation</p>	
<p>Very Low Quality Evidence Evidence from one or more “Very Low” quality studies with consistent findings or evidence from a single “Low” quality study recommendation for or against the intervention</p>	<p>No Recommendation may be made</p>	

Table 2. Recommendation Definitions and Levels of Adherence

<p>Strong recommendation</p>	<p>A particular action is favored because anticipated benefits clearly exceed harms (or vice versa), and quality of evidence is excellent (moderate or strong) or unobtainable.</p>	<p>Clinicians should follow a strong recommendation unless a clear and compelling rationale for an alternative approach is present.</p>
<p>Moderate recommendation</p>	<p>A particular action is favored because anticipated benefits clearly exceed harms (or vice versa), and the quality of evidence is good but not excellent (or is unobtainable).</p>	<p>Clinicians would be prudent to follow a moderate recommendation but should remain alert to new information and sensitive to patient preferences.</p>
<p>Weak recommendation</p>	<p>A particular action is favored because anticipated benefits clearly exceed harms (or vice versa), but the quality of evidence is low or very low.</p>	<p>Clinicians would be prudent to follow a weak recommendation but should remain alert to new information and very sensitive to patient preferences.</p>
<p>Option</p>	<p>An option is provided when the aggregated data shows evidence of both benefit and harm that appear similar in magnitude for any available courses of action</p>	<p>Clinicians should consider the options in their decision making, but patient preference may have a substantial role.</p>

REFERENCE LIST

- ¹ Perdakis G, Dillingham C, Boukovalas S, Ogunleye AA, Casambre F, Dal Cin A, Davidson C, Davies CC, Donnelly KC, Fischer JP, Johnson DJ, Labow BI, Maasarani S, Mullen K, Reiland J, Rohde C, Slezak S, Taylor A, Visvabharathy V, Yoon-Schwartz D. American Society of Plastic Surgeons Evidence-Based Clinical Practice Guideline Revision: Reduction Mammoplasty. *Plast Reconstr Surg*. 2022 Mar 1;149(3):392e-409e.
- ² American Society of Plastic Surgery (2018) Retrieved from <https://www.plasticsurgery.org/documents/News/Statistics/2018/plastic-surgery-statistics-full-report-2018.pdf>
- ³ Chao, J. D., Memmel, H. C., Redding, J. F., Egan, L., Odom, L. C., & Casas, L. A. (2002). Reduction mammoplasty is a functional operation, improving quality of life in symptomatic women: a prospective, single-center breast reduction outcome study. *Plast Reconstr Surg*, 110(7), 1644-1652; discussion 1653-1644.
- ⁴ Collins, E. D., Kerrigan, C. L., Kim, M., Lowery, J. C., Striplin, D. T., Cunningham, B., & Wilkins, E. G. (2002). The effectiveness of surgical and nonsurgical interventions in relieving the symptoms of macromastia. *Plast Reconstr Surg*, 109(5), 1556-1566.
- ⁵ Greco, R., & Noone, B. (2017). Evidence-Based Medicine: Reduction Mammoplasty. *Plast Reconstr Surg*, 139(1), 230e-239e.
- ⁶ Iwuagwu, O. C., Walker, L. G., Stanley, P. W., Hart, N. B., Platt, A. J., & Drew, P. J. (2006). Randomized clinical trial examining psychosocial and quality of life benefits of bilateral breast reduction surgery. *Br J Surg*, 93(3), 291-294.
- ⁷ Kececi, Y., Sir, E., & Gungor, M. (2015). Patient-reported quality-of-life outcomes of breast reduction evaluated with generic questionnaires and the breast reduction assessed severity scale. *Aesthet Surg J*, 35(1), 48-54.
- ⁸ Saariniemi, K. M., Joukamaa, M., Raitasalo, R., & Kuokkanen, H. O. (2009). Breast reduction alleviates depression and anxiety and restores self-esteem: a prospective randomised clinical trial. *Scand J Plast Reconstr Surg Hand Surg*, 43(6), 320-324.
- ⁹ Spector, J. A., & Karp, N. S. (2007). Reduction mammoplasty: a significant improvement at any size. *Plast Reconstr Surg*, 120(4), 845-850.
- ¹⁰ Spector, J. A., Singh, S. P., & Karp, N. S. (2008). Outcomes after breast reduction: does size really matter? *Ann Plast Surg*, 60(5), 505-509.

¹¹ Benditte-Klepetko, H., Leisser, V. et al. (2007). Hypertrophy of the breast: a problem of beauty or health? *J Womens Health (Larchmt)*, 16(7), 1062-1069.

¹² Cabral, I. V., Garcia, E. D., Sobrinho, R. N., et al. (2017). Increased Capacity for Work and Productivity After Breast Reduction. *Aesthet Surg J*, 37(1), 57-62.

¹³ Mundy, L. R., Homa, K., Klassen, A. F., Pusic, A. L., & Kerrigan, C. L. (2017). Understanding the Health Burden of Macromastia: Normative Data for the BREAST-Q Reduction Module. *Plast Reconstr Surg*, 139(4), 846e-853e.

¹⁴ Berberoglu, O., Temel, M., & Turkmen, A. (2015). Effects of Reduction Mammoplasty Operations on the Spinal Column: Clinical and Radiological Response. *Aesthetic Plast Surg*, 39(4), 514-522.

Bikhchandani, J., Varma, S. K., & Henderson, H. P. (2007). Is it justified to refuse breast reduction to smokers? *J Plast Reconstr Aesthet Surg*, 60(9), 1050-1054.

¹⁵ Iwuagwu, O. C., Platt, A. J., Stanley, P. W., Hart, N. B., & Drew, P. J. (2006). Does reduction mammoplasty improve lung function test in women with macromastia? Results of a randomized controlled trial. *Plast Reconstr Surg*, 118(1), 1-6; discussion 7.

¹⁶ Cabral, I. V., da Silva Garcia, E., Sobrinho, R. N., Pinto, N. L. L., Juliano, Y., Veiga-Filho, J., . . . Veiga, D. F. (2018). Use of the BREAST-Q Survey in the Prospective Evaluation of Reduction Mammoplasty Outcomes. *Aesthetic Plast Surg*, 42(2), 388-395.

¹⁷ Coriddi, M., Nadeau, M., Taghizadeh, M., & Taylor, A. (2013). Analysis of satisfaction and well-being following breast reduction using a validated survey instrument: the BREAST-Q. *Plast Reconstr Surg*, 132(2), 285-290.

¹⁸ Iwuagwu, O. C., Stanley, P. W., Platt, A. J., Drew, P. J., & Walker, L. G. (2006). Effects of bilateral breast reduction on anxiety and depression: results of a prospective randomised trial. *Scand J Plast Reconstr Surg Hand Surg*, 40(1), 19-23.

¹⁹ Kalliainen LK; ASPS Health Policy Committee. ASPS clinical practice guideline summary on reduction mammoplasty. *Plast Reconstr Surg*. 2012 Oct;130(4):785-9.

²⁰ Gonzalez, M. A., Glickman, L. T., Aladegbami, B., & Simpson, R. L. (2012). Quality of life after breast reduction surgery: a 10-year retrospective analysis using the Breast Q questionnaire: does breast size matter? *Ann Plast Surg*, 69(4), 361-363.

²¹ Kerrigan CL, Collins ED, Kim HM, Schnur PL, Wilkins E, Cunningham B, Lowery J.

Reduction Mammoplasty: Defining Medical Necessity *Med Decis Making*. 2002; 22:208-217.

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- ²² Nguyen, J. T., Wheatley, M. J., Schnur, P. L., Nguyen, T. A., & Winn, S. R. (2008). Reduction mammoplasty: a review of managed care medical policy coverage criteria. *Plast Reconstr Surg*, 121(4), 1092-1100.
- ²³ Strong, B., & Hall-Findlay, E. J. (2015). How Does Volume of Resection Relate to Symptom Relief for Reduction Mammoplasty Patients? *Ann Plast Surg*, 75(4), 376-382.
- ²⁴ Bayramicli, M., Sirinoglu, H., & Yalcin, D. (2017). Outcome After Breast Reduction Considering Body Mass Index and Resection Amount. *Aesthet Surg J*, 37(10), 1103-1110.
- ²⁵ Frey, J. D., Koltz, P. F., Bell, D. E., & Langstein, H. N. (2014). The complex insurance reimbursement landscape in reduction mammoplasty: how does the American plastic surgeon navigate it? *Ann Plast Surg*, 72(1), 23-29.
- ²⁶ Hernanz, F., Fidalgo, M., Munoz, P., Noriega, M. G., & Gomez-Fleitas, M. (2016). Impact of reduction mammoplasty on the quality of life of obese patients suffering from symptomatic macromastia: A descriptive cohort study. *J Plast Reconstr Aesthet Surg*, 69(8), e168-173.
- ²⁷ Wagner, D. S., & Alfonso, D. R. (2005). The influence of obesity and volume of resection on success in reduction mammoplasty: an outcomes study. *Plast Reconstr Surg*, 115(4), 1034-1038.
- ²⁸ Spector, J. A., Singh, S. P., Karp, N. S. Outcomes after breast reduction: does size really matter? *Ann. Plast Surg* 60: 505-509, 2008.
- ³⁰ Schnur, PL, Hoehn, JG, Ilstrup, DM, Cahoy, MJ, Chu, CP. Reduction mammoplasty: cosmetic or reconstructive procedure? *Ann. Plast Surg* 27: 232-237, 1991.
- ³¹ Schnur PL, Schnur DP, Petty PM, Hanson TJ, Weaver AL. Reduction Mammoplasty: An Outcome Study *Plas Reconstr Sur.* 1997Sep; 100(4): 875-83.