Policy Number	**SUR716.017**
Policy Effective Date	**07/15/2025**

Surgical Treatment of Gynecomastia

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Related Policies (if applicable)
SUR717.001: Gender Assignment Surgery and Gender Reassignment Surgery with Related Services

Disclaimer

Carefully check state regulations and/or the member contract.
Each benefit plan, summary plan description or contract defines which services are covered, which services are excluded, and which services are subject to dollar caps or other limitations, conditions or exclusions. Members and their providers have the responsibility for consulting the member's benefit plan, summary plan description or contract to determine if there are any exclusions or other benefit limitations applicable to this service or supply. **If there is a discrepancy between a Medical Policy and a member's benefit plan, summary plan description or contract, the benefit plan, summary plan description or contract will govern.**

Coverage

This medical policy does NOT address Gender Reassignment Services (Transgender Services). This medical policy IS NOT TO BE USED for Gender Reassignment Services. Refer to SUR717.001, Gender Assignment Surgery and Gender Reassignment Surgery with Related Services.

Surgical removal of breast tissue, such as mastectomy or liposuction, as a treatment of gynecomastia **is considered not medically necessary** due to the lack of functional impairment.

Policy Guidelines

NOTE 1: The not medically necessary determination applies regardless of the underlying condition including, but not limited to, an underlying hormonal disorder, obesity, adolescence, and other age-related breast tissue enlargement symptoms, and/or the reversible side effects of drug treatment.

NOTE 2: This policy does not address the use of mastectomy to remove breast tissue following a biopsy confirming malignancy.

NOTE 3: Regarding Cosmetic Services: Determination of benefit coverage for procedures considered to be cosmetic is based on how a member's benefit contract defines cosmetic services and their eligibility for benefit coverage. Determination of coverage eligibility for the surgical treatment of gynecomastia may require consideration of whether or not such surgery would be considered either essentially cosmetic in nature or reconstructive. Contractual definitions of the scope of reconstructive services that may be eligible for coverage vary. Determinations of whether a proposed therapy would be considered reconstructive or cosmetic should always be interpreted in the context of the specific benefits language.

Description

Gynecomastia

Gynecomastia is a benign enlargement of the male breast, either due to increased adipose tissue, glandular tissue, fibrous tissue, or a combination of all three. Gynecomastia may be associated with any of the following:

- An underlying hormonal disorder (i.e., conditions causing either estrogen excess or testosterone deficiency such as liver disease or an endocrine disorder);
- An adverse effect of certain drugs (including, but not limited to steroids, chemotherapy, etc.);
- Obesity; or
- Related to specific age groups:
  - Neonatal gynecomastia, related to action of maternal or placental estrogens;
  - Adolescent gynecomastia, which consists of transient, bilateral breast enlargement, which may be tender; or
  - Gynecomastia of aging, related to the decreasing levels of testosterone and relative estrogen excess.

<u>Treatment</u>

Treatment of gynecomastia involves consideration of the underlying cause. For example, treatment of the underlying hormonal disorder, cessation of drug therapy, or weight loss may all be effective therapies. Gynecomastia may also resolve spontaneously, and adolescent gynecomastia may resolve with aging.

Prolonged gynecomastia causes periductal fibrosis and stromal hyalinization, which prevents the regression of the breast tissue. Surgical removal of the breast tissue, using surgical excision or liposuction, may be considered if the conservative therapies above are not effective or possible and the gynecomastia does not resolve spontaneously or with aging.

Regulatory Status

Removal of the breast tissue is a surgical procedure and, as such, is not subject to regulation by the U.S. Food and Drug Administration.

Rationale

Medical policies 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 one 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. Randomized controlled trials 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.

Bilateral Gynecomastia

Clinical Context and Therapy Purpose

The purpose of surgical therapy for bilateral gynecomastia is to provide a treatment option that is an alternative to or an improvement on existing therapies, such as conservative treatment.

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

Populations

The relevant population of interest is individuals with bilateral gynecomastia, a benign enlargement of the male breast due either to increased adipose, glandular, or fibrous tissue, or a combination of the three. An underlying hormonal disorder, obesity, and an adverse effect of certain drugs may be associated with the condition. Additionally, the bilateral gynecomastia may be related to specific age groups, including neonates, adolescents, and in aging men with decreasing levels of testosterone and relative estrogen excess.

Interventions

The therapy being considered is surgical treatment: removal of the breast tissue by surgical excision or liposuction.

Comparators
The main comparators of interest is conservative treatment, which varies based on the underlying cause of the condition and can include treatment of underlying hormonal disorder, cessation of drug therapy, and weight loss.

Outcomes
The general outcomes of interest are symptoms, functional outcomes, health status measures, quality of life, and treatment-related morbidity. Symptoms of bilateral gynecomastia may include enlargement, tenderness, and lumps in the breast tissue.

Evaluation of the general outcomes of interest requires a long follow-up period beyond the immediate postoperative period if surgery is performed. In the existing literature evaluating surgery as a treatment for bilateral gynecomastia, follow-up is 5 years.

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.

Coverage eligibility for treatment of bilateral gynecomastia is largely a contract/benefits issue related to the distinction between cosmetic and reconstructive services. The surgical procedure may involve surgical excision (i.e., mastectomy). More recently, liposuction has been used. (1, 2) In some instances, adolescent gynecomastia may be reported as tender or painful, and the presence of these symptoms may be presented as a basis for surgical treatment. However, the pain associated with adolescent gynecomastia is typically self-limiting or responds to analgesic therapy.

No randomized clinical trials that were not included in the below systematic reviews were identified to assess various surgical interventions to treat male gynecomastia.

Systematic Reviews
Two systematic reviews on gynecomastia treatment that have been conducted are described in Tables 1 and 2. A systematic review by Fagerlund et al. (2015) included 17 studies on pharmacologic and/or surgical treatment of gynecomastia. (3) The body of evidence was determined to be of very low quality by Grading of Recommendations, Assessment, Development, and Evaluations (GRADE) criteria; the method of patient satisfaction rating also

varied between studies which resulted in difficulties interpreting the results. None of the included studies were randomized, and all were judged to be at high-risk of bias.

A systematic review by Prasetyono et al. (2022) included 18 studies (N=244) on liposuction-assisted gynecomastia surgery in patients with specified Simon's classification of gynecomastia grade I and II. (4) The method of patient satisfaction rating also varied between studies which resulted in difficulties interpreting the results. Only 2 studies were considered good quality in terms of level of evidence, and the authors noted that there was a high risk of bias in all included studies which precludes them from drawing any non-biased conclusion.

Table 1. Systematic Review Characteristics

Study	Dates	Trials	Participants[1]	N (Range)	Design	Duration
Fagerlund et al. (2015) (3)	2000-2014	17	Male patients with gynecomastia that underwent medical and/or surgical treatment	826 (NR)	Cohort and case-series	Minimum follow-up of 6 months
Prasetyono et al. (2022) (4)	2011-2020	18	Male patients with gynecomastia that underwent liposuction-assisted surgery with or without pharmacological intervention	244 (NR)	Cohort, case-series, RCT	Minimum follow-up of 6 months

[1] Key eligibility criteria.
NR: not reported; RCT: randomized controlled trial; N: number(s).

Table 2. Systematic Review Results

Study	Complication/Side Effect Rates (%)	Reoperation Rate (%)
Fagerlund et al. (2015) (3)		
Total N	NR	NR
Range (%)	0% to 20%	NR
Prasetyono et al. (2022) (4)		
Total N	NR	NR
Range (%)	0.06% to 26.67%	0.6% to 25%

N: number(s), NR: Not reported.

Nonrandomized Studies

Exposure of new techniques, quality of life assessments, and other nonsurgical outcomes have been reported in the literature; studies that were not included in the systematic reviews above are described below.

Nuzzi et al. (2018) published a longitudinal cohort study aimed at measuring changes in health-related quality of life following surgical management of gynecomastia using 3 surveys administered over a 5-year period to both the intervention group and age- and sex-matched controls. (5) The surveys administered were the Short-form 36 Health Survey Version 2 (SF-36v2), Rosenberg Self-Esteem Scale (RSES), and Eating-Attitudes Test-26 (EAT-26). From 2008 to 2017, 44 patients who underwent treatment of gynecomastia and 64 unaffected controls participated in the study. Race or ethnicity of patients were not described. Patients in the intervention group scored significantly poorer at baseline compared with controls on both the RSES and EAT-26 ($p<.05$, both), even after controlling for body mass index (BMI) differences. Gynecomastia patients scored lower on five SF-36v2 domains than the controls: general health, vitality, social functioning, role-emotional, and mental health ($p<.05$, all). Scores significantly improved post-operatively on the RSES and in four SF-36v2 domains. Post-operatively, gynecomastia patients scored similarly to the control group on the SF-36v2 and RSES, indicating an improvement in quality of life.

Liu et al. (2022) reported on a cohort of 34 patients (N=50 breasts; 16 bilateral and 18 unilateral) diagnosed with glandular gynecomastia who were treated with endoscope-assisted minimally invasive surgery. (6) According to Simon's classification of gynecomastia, grade I (n=10), grade IIA (n=25), and grade IIB (n=15) patients were included. Race or ethnicity of patients were not described. Median follow-up duration was 21 months (range, 12 to 34 months). Short-term complications included pain, postoperative bleeding, and subcutaneous seroma. Long-term complications included dysesthesia of the nipple-areolar complex and redundant skin. Cosmetic outcomes were assessed by 2 surgeons at 6 months post-procedure. Cosmetic outcomes based on predetermined criteria were as follows: very good (15/34; 44.1%), good (17/34; 50%), and average (2/34; 5.9%). Satisfaction of patients was scored using a 5-point Likert scale, and the average was 4.4 points (+/- standard deviation of 0.5).

Table 3. Summary of Nonrandomized Studies Characteristics

Study	Study Type	Country	Dates	Participants	Treatment	Treatment	F/U
Nuzzi et al. (2018) (5)	Prospective, longitudinal cohort study	U.S.	2008-2017	Adolescents diagnosed with unilateral or bilateral gynecomastia (n=44) and male controls (n=64)	Surgical interven-tion	Control	5 yrs

Liu et al. (2022) (6)	Prospective, longitudinal cohort study	China	2018-2020	Adolescents and adults diagnosed with glandular gynecomastia (N=50 breasts; 16 bilateral and 18 unilateral)	Surgical interven-tion		21 mos

mos: months; N: number(s); U.S.: United States; yrs: years.

Table 4. Summary of Observational Comparative Study Results

Study						
	SF-36v2 – Physical Functioning (SD)	**SF-36v2 – Bodily Pain (SD)**	**SF-36v2 – General Health (SD)**	**SF-36v2 – Social Functioning (SD)**	**RSES (SD)**	**EAT-26 (SD)**
Nuzzi et al. (2018) (5)						
Treatment group	97.0 (7.2)	81.2 (11.0)	77.4 (17.8)	84.6 (22.0)	32.5 (6.4)	8.0 (6.5)
Control	97.1 (11.6)	78.7 (15.3)	83.6 (16.0)	88.3 (20.6)	34.8 (5.8)	3.8 (5.2)
p-value	.78	.59	.59	.42	.26	.001
			Patients' mean overall satisfaction score (SD)	**Short-term complications (n)**	**Long-term Complications (n)**	
Liu et al. (2022) (6)						
Treatment group			4.4 (0.5)	Pain (n=21) Postoperative bleeding (n=1) Subcutaneous seroma (n=3)	Dysesthesia of the NAC (n=2) Redundant skin (n=2)	

EAT-26: eating-attitudes test-26; NAC: nipple-areolar complex; RSES: Rosenberg self-esteem scale; SF-36v2: short-form 36 health survey version 2; SD: standard deviation; n: number(s).

Section Summary: Bilateral Gynecomastia

To demonstrate improvement in health outcomes, controlled trials are needed that report clinically important outcomes such as improvement in functional status. No such trials were identified through a literature search. Two systematic reviews included studies on the surgical treatment of gynecomastia; however, the majority of evidence was determined to be of low quality with a high risk of bias.

Summary of Evidence
For individuals with bilateral gynecomastia who receive surgical treatment, the evidence includes nonrandomized studies. Relevant outcomes are symptoms, functional outcomes, health status measures, quality of life, and treatment-related morbidity. Because there are no randomized controlled trials on functional outcomes after surgical treatment of bilateral gynecomastia, it is not possible to determine with a high level of confidence whether surgical treatment improves symptoms or functional impairment. Conservative therapy should adequately address any physical pain or discomfort, and gynecomastia does not typically cause functional impairment. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Practice Guidelines and Position Statements
American Society of Plastic Surgeons (ASPS)
In 2002, affirmed 2015, the ASPS issued practice criteria for third-party payers. (7) The ASPS classified gynecomastia using the following scale, which was "adapted from the McKinney and Simon, Hoffman and Kohn scales":

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

According to the ASPS, in adolescents, surgical treatment for "unilateral or bilateral grade II or III gynecomastia" may be appropriate if the gynecomastia "persists for more than 1 year after pathological causation is ruled out" (or 6 months if grade IV) and continues "after 6 months of unsuccessful medical treatment for pathological gynecomastia." In adults, surgical treatment for "unilateral or bilateral grade III or IV gynecomastia" may be appropriate if the gynecomastia "persists for more than 3 or 4 months after pathological causes are ruled out [and continues] after 3 or 4 months of unsuccessful medical treatment for pathological gynecomastia." The ASPS also indicated that surgical treatment of gynecomastia may be appropriate when distention and tightness cause "pain and discomfort."

American Society of Andrology
In 2019, the American Society of Andrology, in collaboration with the European Academy of Andrology, released clinical practice guidelines on gynecomastia evaluation and management. (8) Their recommendation related to surgical intervention is as follows:

- "We suggest surgical treatment only for patients with long-lasting GM [gynecomastia], which does not regress spontaneously or following medical therapy. The extent and type of surgery depend on the size of breast enlargement, and the amount of adipose tissue [weak recommendation, low quality of evidence]."

Ongoing and Unpublished Clinical Trials

A search of ClinicalTrials.gov in December 2024 did not identify any ongoing or unpublished trials that would likely influence this policy.

Coding

Procedure codes on Medical Policy documents are included **only** as a general reference tool for each policy. **They may not be all-inclusive.**

The presence or absence of procedure, service, supply, or device codes in a Medical Policy document has no relevance for determination of benefit coverage for members or reimbursement for providers. **Only the written coverage position in a Medical Policy should be used for such determinations.**

Benefit coverage determinations based on written Medical Policy coverage positions must include review of the member's benefit contract or Summary Plan Description (SPD) for defined coverage vs. non-coverage, benefit exclusions, and benefit limitations such as dollar or duration caps.

CPT Codes	15839, 19300
HCPCS Codes	None

*Current Procedural Terminology (CPT®) ©2024 American Medical Association: Chicago, IL.

References

1. Rohrich RJ, Ha RY, Kenkel JM, et al. Classification and management of gynecomastia: defining the role of ultrasound-assisted liposuction. Plast Reconstr Surg. 2003; 111(2):909-923; discussion 924-925. PMID 12560721
2. Góes JC, Landecker A. Ultrasound-assisted lipoplasty (UAL) in breast surgery. Aesthetic Plast Surg. 2002; 26(1):1-9. PMID 11891589
3. Fagerlund A, Lewin R, Rufolo G, et al. Gynecomastia: A systematic review. J Plast Surg Hand Surg. 2015; 49(6):311-318. PMID 26051284
4. Prasetyono TOH, Budhipramono AG, Andromeda I. Liposuction Assisted Gynecomastia Surgery With Minimal Periareolar Incision: a Systematic Review. Aesthetic Plast Surg. Feb 2022; 46(1):123-131. PMID 34379157
5. Nuzzi LC, Firriol JM, Pike CM, et al. The effect of surgical treatment for gynecomastia on quality of life in adolescents. J Adolesc Health. Dec 2018; 63(6):759-765. PMID 30279103
6. Liu C, Tong Y, Sun F, et al. Endoscope-Assisted Minimally Invasive Surgery for the Treatment of Glandular Gynecomastia. Aesthetic Plast Surg. Dec 2022; 46(6):2655-2664. PMID 35237883
7. American Society of Plastic Surgeons. ASPS Recommended Insurance Coverage Criteria for Third-Party Payers: Gynecomastia (2002, affirmed 2015). Available at: <https://www.plasticsurgery.org> (accessed December 17, 2024).
8. Kanakis GA, Nordkap L, Bang AK, et al. EAA clinical practice guidelines-gynecomastia evaluation and management. Andrology. Nov 2019; 7(6):778-793. PMID 31099174

Centers for Medicare and Medicaid Services (CMS)

The information contained in this section is for informational purposes only. HCSC makes no representation as to the accuracy of this information. It is not to be used for claims adjudication for HCSC Plans.

The Centers for Medicare and Medicaid Services (CMS) does not have a national Medicare coverage position. Coverage may be subject to local carrier discretion.

A national coverage position for Medicare may have been developed since this medical policy document was written. See Medicare's National Coverage at <https://www.cms.hhs.gov>.

Policy History/Revision	
Date	**Description of Change**
07/15/2025	Document updated with literature review. Coverage unchanged. No new references added.
08/15/2024	Reviewed. No changes.
01/01/2024	Document updated with literature review. Coverage unchanged. References 3, 4, 6, and 8 added; others removed.
05/15/2022	Reviewed. No changes.
10/01/2021	Document updated with literature review. Coverage unchanged. No new references added.
11/15/2020	Reviewed. No changes.
09/01/2019	Document updated with literature review. Coverage statement clarified but coverage intent unchanged. References 5 and 6 added.
06/15/2018	Reviewed. No changes.
07/15/2017	Document updated with literature review. Coverage unchanged.
07/15/2016	Reviewed. No changes.
06/01/2015	Document updated with literature review. Coverage unchanged.
11/15/2014	Reviewed. No changes.
11/01/2013	Document updated with literature review. Coverage unchanged. Title changed from “Mastectomy for Gynecomastia”.
08/01/2008	Policy reviewed without literature review; new review date only. This policy is no longer scheduled for routine literature review and update.
07/15/2006	Revised/updated entire document
08/01/1999	Revised/updated entire document
05/01/1996	Medical policy number changed
05/01/1990	New medical document