

#### **Utilization \*ALERT\***

- Prior to use of this MCP for evaluation of medical necessity, benefit coverage MUST be verified in the member's EOC or benefit document
- For Medicare members, please refer to CMS guidelines through requirements as reflected in the Medicare Coverage Database.
- Note: After searching the Medicare Coverage Database, if no NCD/LCD/LCA is found, then use the policy referenced above for coverage guidelines

I. Diagnosis: Macromastia and Gynecomastia

II. Specialty: Plastic and Reconstructive Surgery

#### III. Benefit Alert

- **A.** KFHP coverage for plastic and reconstructive surgery is contractually limited to procedures intended to significantly improve physical function. Procedures and services intended to improve or maintain appearance, not expected to significantly improve physical function, are considered cosmetic and usually excluded contractually.
- **B.** Inform patients that certain plastic surgery procedures may not be covered benefits because of specific exclusions in their or their employer's contract with KFHP. Note that a patient's contract (Evidence of Coverage or EOC) may differ significantly by his/her governing jurisdiction, which includes Maryland, Virginia, District of Columbia, Federal, Medicaid, and Medicare. Imaging and testing necessary to establish a diagnosis are covered services if the diagnostic services are ordered by a Kaiser Permanente affiliated physician.
- **C.** Patients with questions about their plastic and reconstructive surgery benefit should be encouraged to contact Member Services.

#### IV. History and Physical

Documentation of the following is recommended:

- A. Significant change in bra size over the previous 2 years.
- B. Musculoskeletal pain (shoulder, neck, arm, or back pain) for six or more months.
- C. History with attention to prescription and illicit drug usage. Breast enlargement is often concurrent with usage of hormones, anti-androgens, anti-ulcer medications, cancer treatments, cardiovascular medications, drugs of abuse etc.
- D. Physical Examination with attention to height, weight, macromastia, bra size, back, neck, shoulder, arm pain, breast exam, neurological exam, shoulder grooving, intertrigo.



#### V. Recommended Therapeutic Measures Prior to Referral

#### A. Recommended Therapeutic Measures Prior to Referral for Macromastia

- 1. Patients should discontinue causative drug(s), if feasible, and be re-evaluated in 3 months;
- 2. For patients with musculoskeletal pain: documented trial of NSAIDs x 6 weeks OR Physical therapy with a home exercise and treatment protocol OR back/neck health education class are recommended before surgery;
- 3. For patients with skin infections, a trial of anti-infective treatment, topical and/or systemic, for 3 or more months AND counseling of the patient on personal hygiene measures;
- 4. Recommend custom-fitted support undergarments (adequate bra supports and wide strap);
- 5. Women 40 years of age or older are required to have a mammogram that was negative for cancer performed within the year prior to the date of the planned reduction mammoplasty.
- 6. Documentation of severity of patient's symptoms and impact on quality of life;
- 7. Patient should be at least one year postpartum and have stopped breast feeding for 6 months or more; and
- 8. In addition to the above criteria, obese patients (BMI greater than 35) must receive nutrition education for 3 or more months, as follows:
  - a. Documentation of attendance of professional nutrition class such as KPMAS Nutrition for Weight Control; and
  - b. Documentation and completion of two or more individual professional nutrition counseling sessions are required.

#### B. Recommended Therapeutic Measures Prior to Referral for Gynecomastia

- 1. Post pubertal male with one year or more of gynecomastia or prepubertal male with 24 months or more of gynecomastia and **ALL** of the following:
  - a. The tissue to be removed is glandular breast tissue and not the result of obesity or puberty.
  - b. The gynecomastia is classified as Grade II, III or IV per the American Society of Plastic Surgeons classification.
  - c. Functional impairment (Functional impairment is defined as a direct and measurable reduction in physical performance of an organ or body part) AND one of the following
    - i. Gynecomastia persisting greater than 12 to 24 months despite treatment for a known underlying causative medical condition (e.g., androgen deficiency, endocrine disorders, increased estrogen secretion, Klinefelter syndrome); OR
    - ii. Idiopathic gynecomastia persisting beyond 24 months when underlying hormonal or medical causes have been excluded by appropriate laboratory testing (e.g., thyroid function studies, testosterone, beta subunit human chorionic gonadotropin (HCG), estradiol, prolactin); **OR**
    - iii. Medication-induced (e.g., bicalutamide, cimetidine, human growth hormone, ketoconazole, nifedipine, spironolactone) gynecomastia that does not resolve after six months of cessation of the drug therapy.



- d. Mammography or needle biopsy results show no evidence of breast cancer.
- e. No evidence of other medical causes for gynecomastia, as indicated by normal results for **ALL** of the following:
  - Hormone evaluation (i.e., testosterone, luteinizing hormone, follicle-stimulating hormone, estradiol, prolactin, beta-human chorionic gonadotropin), liver enzymes. serum creatinine, thyroid function tests.
- 2. In addition to the above criteria, obese patients (BMI greater than 35) must receive nutrition education for 3 or more months, as follows:
  - Documentation of attendance of professional nutrition class such as KPMAS Nutrition for Weight Control; and
  - b. Documentation and completion of two or more individual professional nutrition counseling sessions are required.

#### VI. Clinical Guidelines for Consultation or Referral to Plastic and Reconstructive Surgery

- A. Suspected Malignancy: Patients with suspected malignancy should be immediately referred to the appropriate specialist(s) for evaluation and management.
- B. Psychosocial Issues: Patients with impaired social functioning or psychological distress related to their breast size should be referred to Behavioral Health.
- C. Male Gynecomastia: surgical mastectomy either unilateral or bilateral, is a cosmetic procedure and is not a covered benefit, **except** for:
  - 1. A male patient with a diagnosis of breast cancer
  - Male Gynecomastia secondary to Androgen Deprivation Therapy (cover surgery or radiation).
     For other drug interactions causing male gynecomastia, medical therapy should be directed at correcting the cause, such as discontinuation of drugs that cause gynecomastia, and weight reduction.
  - 3. Patients who meet criteria in Section V, B.
- D. Unilateral mammoplasty: Unilateral mammoplasty is a cosmetic procedure and is not customarily a covered benefit **except** in cases of carcinoma of the breast where reduction-unilateral mammoplasty is a mandated covered benefit for patients requesting surgery for reduction of the contralateral non affected breast.
- E. Bilateral mammoplasty: Reduction mammoplasty may be evaluated for coverage as medically necessary reconstructive surgery and referral to plastic and reconstructive surgery is medically appropriate for a symptomatic patient who meets all of the following criteria:
  - 1. Macromastia;
  - 2. Post pubertal female
  - 3. At least 1 year postpartum and 6 months after cessation of breast feeding;
  - 4. Documentation of at least 2 of 7 MAJOR SIGNS/SYMPTOMS unresponsive to medical treatment and affect activities of daily living for at least 6 months: neck pain *OR* back pain *OR* shoulder pain *OR* upper extremity numbness *OR* arm pain or with grooving from bra straps *OR* persistent intertrigo with redness and erythema, with or without ulceration, below the breasts. *AND*



5. Medical records indicate the presence of pain symptoms are caused by macromastia and are not secondary to primary musculoskeletal condition such as arthritis, spondylitis, degenerative arthritis of the spine, fibromyalgia, or polymyalgia rheumatica.

#### VII. Plastic and Reconstruction Surgery Referral for Medically Necessary Surgery

#### A. Plastic and Reconstructive Surgeon evaluates patient and documents:

- 1. Distance of nipple position below sternal notch;
- 2. Estimate of the amount of breast tissue to be removed; and
- 3. Verifies that reduction mammoplasty is likely to result in improvement in the signs and symptoms unresponsive to conservative medical treatment.

### B. Coverage of bilateral breast reduction mammoplasty will be limited to medically necessary reconstructive surgery for patients who:

- 1. Meet criteria listed in section VI, E; and
- 2. Breast tissue estimated for removal is significantly disproportionate to the individual's body surface area and is calculated above the 22<sup>nd</sup> percentile on the Schnur Sliding Scale chart.

**Table 1. Schnur Sliding Scale** 

Schnur Sliding Scale (Reduction Mammoplasty: Cosmetic or Reconstructive Procedure) (Annals of Plastic Surgery, Vol. 27, Number 3, September, 1991)					
Body Surface Area	Estimated Amt of Tissue to be Removed	Body Surface Area	Estimated Amt of Tissue to be Removed		
(m²)	Each Breast (grams)	(m²)	Each Breast (grams)		
1.35	199	1.85	482		
1.40	218	1.90	527		
1.45	238	1.95	575		
1.50	260	2.00	628		
1.55	284	2.05	687		
1.60	310	2.10	750		
1.65	338	2.15	819		
1.70	370	2.20	895		
1.75	404	2.25	978		
1.80	441	>2.30	over 1000 grams		



#### Table 2. Classification of Gynecomastia

Gynecomastia Practice Criteria based on the recommendation by American Society of Plastic Surgeons (ASPS), adapted from McKinney and Simon, Hoffman, and Kohn scales.

Gynecomastia Grading Scale		
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.	

#### References

- 1. Hansson E, Manjer J, Borren J, Levin M, Mulder L, Ringberg A. A feasible computer-based evaluation tool for reduction mammaplasty patients: Indications for operation and monitoring of guidelines. *Int J of Surg Recon.* July 2014. 67:7, 927-31.
- 2. Hu C, Kneusel R, Barnas G: MedCalc: Body Surface Area, Body Mass Index (BMI). Copyright © 1999-2014 MedCalc.com. Accessed 22 September 2014.
- 3. Koltz PF, Sbitany H, Myers RP, Shaw RB, Patel N, Girotto JA. Reduction mammaplasty in the adolescent female: the URMC experience. *International Journal of Surgery*, 2011; 9 (3): 229-32.
- 4. Kosins AM, Scholz T, Cetinkaya M, Evans G. Evidence-based Value of Subcutaneous Surgical Wound Drainage: The Largest Systematic Review and Meta-Analysis. *Plastic and Reconstructive Surg*; Aug 2013: 132:2: 443-50.
- 5. Medicare Coverage Database, Publication 100-3, version 1. Breast Reconstruction Following Mastectomy. Accessed 06/16/2016.
- 6. Niewoehner CB, Schorer AE. Gynaecomastia and breast cancer in men. British Medical Journal 2008; 336 (7646): 709-13.
- 7. Pusic AL, Lemaine V, Klassen AF, Scott AM, Cano SJ Patient-Reported Outcome Measures in Plastic Surgery: Use and Interpretation in Evidence-Based Medicine *Plastic & Reconstructive Surgery*, Mar 2011; 127(3): 1361-67. March 2011, 127(3): 1361-67.
- 8. Shah R Obesity in mammaplasty: a study of complications following breast reduction. *J Plast Reconstr Aesthet Surg* Apr 2011; 64(4): 508-14.
- Shermak MA Increasing age impairs outcomes in breast reduction surgery. Plast Reconstr Surg Dec 2011; 128(6): 1182-7.
- Valtonen JP, Setala LP, Mustonen PK, Blom M. Can the efficacy of reduction mammoplasty be predicted? The applicability and predictive value of breast-related symptoms questionnaire in measuring breast-related symptoms pre and post operatively. *Journal of Plastic Reconstructive* and Aesthetic Surgery. May 2014; 67(5): 676-81.
- 11. Braig, D; Eisenhardt, S.U.; Stark, G.B.; Penna, V., Impact of increasing age on breast reduction surgery. A single centre analysis. *Journal of Plastic, Reconstructive and Aesthetic Surgery*. April



- 2016. 69(4): 482-486 Language: English. DOI: 10.1016/j.bjps 2015.11.011.
- 12. Vianni, G.A.; Bernardes da Silva, L.G; Stefabo, E. J. Prevention of gynecomastia and breast pain caused by androgen deprivation therapy in prostate cancer: Tamoxifen or Radiotherapy? *International Journal of Radiation Oncology.* July 2012 83 (4): 519-524.
- 13. Di Lorenzo, G, Perdona S., De Placido S., D' Armiento, M., Gallo, A., Damiano R., Pingitore, D.; Gallo, L., De sio, M., Autorino, R.. Gynecomastia and breast pain induced by adjuvant therapy with bicalutamide after radical prostatectomy in patients with prostate cancer: The role of Tamoxifen and Radiotherapy. *The Journal of Urology;* December 2005. 174: 2197-2203.
- 14. Dobs, A., and Darkes, M. Incidence and management of gynecomastia in men treated for prostate cancer. *The Journal of Urology*. November 2005. 174: 1737-1742.
- 15. Braig, D.; Eisenhardt, S.U.; Stark, G.B.; Penna, V. Impact of increasing age on breast reduction surgery: A single centre analysis. *Journal of Plastic, Reconstructive & Aesthetic Surgery*. April 2016 69(4):482-486 Language: English. DOI: 10.1016/j.bjps.2015.11.011.
- 16. Shirah, Bader Hamza; Shirah, Hamza Assad. Incidental unilateral and bilateral ductal carcinoma in situ encountered in the surgical management of young male gynecomastia. *Breast Disease*. 2016, Vol. 36 Issue 2/3, p103-110. 8p. DOI: 10.3233/BD-160223.
- 17. Paris, F.; Gaspari, L.; Mbou, F.; Philibert, P.; Audran, F.; Morel, Y.; Biason-Lauber, A.; Sultan, C. Endocrine and molecular investigations in a cohort of 25 adolescent males with prominent/ persistent pubertal gynecomastia. *Andrology*. Mar2016, Vol. 4 Issue 2, p263-269. 7p. DOI: 10.1111/andr.12145
- American Society of Plastic Surgeons. ASPS Recommended Insurance Coverage Criteria for Third-Party Payers Gynecomastia. Gynecomastia. 2016. <a href="https://www.plasticsurgery.org/Documents/Health-Policy/Positions/Gynecomastia\_ICC.pdf">https://www.plasticsurgery.org/Documents/Health-Policy/Positions/Gynecomastia\_ICC.pdf</a>
- Simpson, Andrew M.; Donato, Daniel P.; Kwok, Alvin C.; Agarwal, Jayant P. Predictors of complications following breast reduction surgery: A National Surgical Quality Improvement Program study of 16,812 cases. *Journal of Plastic, Reconstructive & Aesthetic Surgery*. January 2019 72(1):43-51 Language: English. DOI: 10.1016/j.bjps.2018.09.002
- 20. Nuzzi,L;Firriolo, F; pike, C; et al. The Effect of Reduction Mammoplasty on Quality of Life in Adolescents with Macromastia. *Pediatrics* Volume 140, number 5, November 2017 downloaded from www.aapublications.org/news at KP clinical Library on August 23, 2019
- Ngaage LM, Bai J, Gebran S, Elegbede A, Ihenatu C, Nam AJ, Slezak S, Rasko YM. <u>A 12-year review of patient-reported outcomes after reduction mammoplasty in patients with high body mass index.</u> <u>Medicine (Baltimore)</u>. 2019 Jun;98(25): e16055. doi: 10.1097/MD.0000000000016055. PMID: 31232942 <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6636971/pdf/medi-98-e16055.pdf">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6636971/pdf/medi-98-e16055.pdf</a>
- 22. Bauermeister AJ, Gill K, Zuriarrain A, Earle SA, Newman MI. Reduction mammaplasty with superomedial pedicle technique: A literature review and retrospective analysis of 938 consecutive breast reductions. J Plast Reconstr Aesthet Surg. 2019 Mar;72(3):410-418. doi: 10.1016/j.bjps.2018.12.004. Epub 2018 Dec 14. Review. PMID: 30579911 https://www.ncbi.nlm.nih.gov/pubmed/30579911
- 23. Arora Y, Mittal RR, Williams EA, Thaller SR. Barriers to the Effective Management of Gynecomastia in Adolescents. *J Craniofac Surg.* 2019 Nov-Dec;30(8):2381-2384. doi: 10.1097/SCS.0000000000005999. PMID: 31592845



#### https://www.ncbi.nlm.nih.gov/pubmed/31592845

- 24. Aravind P, Siotos C, Bernatowicz E, Cooney CM, Rosson GD. Breast Reduction in Adults: Identifying Risk Factors for Overall 30-Day Postoperative Complications. *Aesthet Surg J.* 2020 Nov 19;40(12):NP676-NP685. doi: 10.1093/asi/sjaa146. PMID: 32506130.
- 25. Winter, R., Reischies, F.M.J., Tuca, A. *et al.* BMI and specimen weight: impact on personalized risk profiling for optimized informed consent in breast reduction surgery? *Sci Rep* **9**, 12690 (2019). https://doi.org/10.1038/s41598-019-49169-y
- 26. Fairchild B, Wei S, Bartz-Kurycki M, Rose JF, Greives MR. The Influence of Obesity on Outcomes After Pediatric Reduction Mammaplasty: A Retrospective Analysis of the Pediatric National Surgical Quality Improvement Program-Pediatric Database. *Ann Plast Surg.* 2020;85(6):608-611. doi:10.1097/SAP.0000000000002311
- Nuzzi LC, Pramanick T, Walsh LR, Firriolo JM, Massey GG, DiVasta AD, Labow BI. Optimal Timing for Reduction Mammaplasty in Adolescents. *Plast Reconstr Surg.* 2020 Dec;146(6):1213-1220. doi: 10.1097/PRS.0000000000007325. PMID: 33234945.
- Kuehlmann B, Vogl FD, Kempny T, Djedovic G, Huemer GM, Hüttinger P, Tinhofer IE, Hüttinger N, Steinstraesser L, Riml S, Waldner M, Bonham CA, Schenck TL, Wechselberger G, Haslik W, Koch H, Mandal P, Rab M, Pallua N, Prantl L, Larcher L. J. Occult Pathologic Findings in Reduction Mammaplasty in 5781 Patients-An International Multicenter Study. *Clin Med.* 2020 Jul 13;9(7):2223. doi: 10.3390/jcm9072223. PMID: 32668782; PMCID: PMC7408965.
- Mads Gustaf Jørgensen, MD, Elin Albertsdottir, MD, Farima Dalaei, MD, Jørgen Hesselfeldt-Nielsen, MD, Volker-Jürgen Schmidt, MD, Jens Ahm Sørensen, MD, PhD, Navid Mohamadpour Toyserkani, MD, PhD, Superomedial Reduction Mammoplasty Affects Patients' Ability to Breastfeed in a Distinct Manner: A Multicenter Study of 303 Patients, *Aesthetic Surgery Journal*, Volume 41, Issue 11, November 2021, Pages NP1498– NP1507, https://doi.org/10.1093/asj/sjab263
- 30. Onuk, A. A., Senen, D., Arslan, B., Muslu, U., Tek, M., & Karslı, B. (2018). Effects of bilateral breast reduction on peak airway pressure and pulmonary function tests. *Nigerian journal of clinical practice*, 21(8), 949–953. https://doi.org/10.4103/1119-3077.238420
- 31. Soliman AT, De Sanctis V, Yassin M. Management of Adolescent Gynecomastia: An Update. Acta Biomed [Internet]. 2017 Aug. 23 [cited 2022 Sep. 16];88(2):204-13. https://www.mattioli1885journals.com/index.php/actabiomedica/article/view/6665
- 32. Hernanz F, Fidalgo M, Muñoz P, et al. 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. Aug 2016; 69(8): e168-73. PMID 27344408 <a href="https://www.clinicalkey.com/#!/content/playContent/1-s2.0-S1748681516300870?returnurl=https:%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS1748681516300870%3Fshowall%3Dtrue&referrer=https:%2F%2Fpubmed.ncbi.nlm.nih.gov%2F</a>
- 33. MCG Ambulatory Care 27<sup>TH</sup> edition, Reduction Mammaplasty (Mammoplasty), ACG: A-0274 (AC), and Mastectomy for Gynecomastia, ACG: A-0273 (AC). Copyright © 2023. MCG Health, LLC; accessed 06/21/2023



#### **Approval History**

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RUMC*	Maryland	(Ten days after filing)
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### **Approval History**

Effective June 01, 2016, state filing is no longer required per Maryland House Bill HB 798 – Health Insurance – Reporting

Date approved by RUMC*	Date of Implementation
10/21/2016	10/21/2016
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<sup>\*</sup>The Regional Utilization Management Committee received delegated authority in 2011 to review and approve designated Utilization Management and Medical Coverage Policies by the Regional Quality Improvement Committee.

Note: Kaiser Permanente Mid-Atlantic States (KPMAS) include referral and authorization criteria to support primary care and specialty care practitioners, as appropriate, in caring for members with selected conditions. Whenever possible, Medical Coverage Policies are evidence-based and may also include expert opinion. Medical Coverage Policies are not intended or designed as a substitute for the reasonable exercise of independent clinical judgment by a practitioner in any particular set of circumstances for an individual member.

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