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	Medical Policy Manual Medical Policy	Effective Date	11/01/2023
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This document applies to the following Participating Organizations:

EHP Johns Hopkins Advantage MD Johns Hopkins Health Plan of Virginia Priority Partners

Inc. (JHHPVA)

US Family Health Plan

Keywords: Panniculectomy, Reconstructive Surgery, Weight Loss

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I. ACTION

	New Policy	
X	Revising Policy Number	CMS03.08
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II. POLICY DISCLAIMER

Johns Hopkins Health Plans (JHHP) provides a full spectrum of health care products and services for Advantage MD, Employer Health Programs, Johns Hopkins Health Plan of Virginia Inc., Priority Partners, and US Family Health Plan. Each line of business possesses its own unique contract, benefits, regulations, and regulators' clinical guidelines that supersede the information outlined in this policy.

III. POLICY

Cross Reference:

• CMS03.12 Cosmetic and Reconstructive Services

For Advantage MD, refer to: Medicare Coverage Database:

Local Coverage Determination (LCD) L35090 Cosmetic and Reconstructive Surgery

For Employer Health Programs (EHP) refer to:

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Plan specific Summary Plan Descriptions (SPDs)

For Johns Hopkins Health Plan of Virginia Inc. (JHHPVA) refer to: Medicare Coverage Database (Effective 1/1/2024)

Local Coverage Determination (LCD) L33428 Cosmetic and Reconstructive Surgery

For Priority Partners (PPMCO) refer to: Code of Maryland Regulations

- Code of Maryland Regulations (COMAR) 10.67.06.26-2 Plastic and Restorative Surgery
- Code of Maryland Regulations (COMAR) 10.67.06.27 Benefits Limitations

For US Family Health Plan, refer to: Tricare Policy Manuals

- TRICARE Policy Manual 6010.63-M, April 1, 2021, Chapter 4, Section 2.1, Cosmetic, Reconstructive, and Plastic Surgery General Guidelines
- TRICARE Policy Manual 6010.63-M, April 1, 2021, Chapter 4, Section 13.2, Surgery for Morbid Obesity

IV. POLICY CRITERIA

- A. When benefits are provided under the member's contract, JHHP considers panniculectomy medically necessary when ALL of the following criteria are met:
 - 1. The patient is \geq 18 years of age, AND;
 - 2. The panniculus is Grade 2 (panniculus covers the genitals and upper thigh crease) or higher, AND;
 - 3. Documentation from the Primary Care Provider or Treating Physician/Specialist demonstrating ONE of the following:
 - a. A significant functional deficit, such as impaired ambulation, directly related to the panniculus, OR;
 - b. Significant interference with the activities of daily living directly related to the panniculus, OR;
 - c. Medical complications directly related to excess tissue and skin folds of the panniculus, such as recurrent, chronic, unremitting intertrigo, candidiasis, cellulitis, or tissue necrosis, and ALL of the following:
 - i. Education regarding and adherence to standard preventive skin care strategies, AND;
 - ii. Detailed description of all physician-supervised skin treatment, AND;
 - iii. Adherence to, and lack of response to standard topical and/or systemic therapy for a minimum of three (3) months. AND:
 - 4. Documentation from the Surgeon evaluating a member confirming ALL of the following:
 - a. Photographs demonstrating the panniculus is Grade 2 or higher, AND;
 - b. The surgery is expected to restore or improve the functional deficit, AND;
 - c. Maintenance of stable weight for a minimum of six (6) consecutive months prior to consultation if the panniculectomy is performed following significant weight loss, AND;
 - d. For those patients whose weight loss is secondary to bariatric surgery, a minimum of 18 months has elapsed from the date of the bariatric surgery, AND;
 - e. Any underlying health conditions (e.g., nutritional deficiency, endocrinopathy, chronic infection) have been adequately controlled, AND;
 - f. A member is not an active smoker.
- B. Unless specific benefits are provided under the member's contract, JHHP considers panniculectomy not medically necessary if the criteria above are not met.

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V. DEFINITIONS

Abdominoplasty: Abdominoplasty is a surgical procedure that tightens the abdominal wall muscles and involves the removal of excess skin and fat from the pubis to the umbilicus or above, and may include fascial plication of the rectus muscle diastasis and neoumbilicoplasty. Abdominoplasty is typically performed for cosmetic purposes and commonly referred to as a "tummy tuck" (Hayes, 2020; Regan, 2022).

<u>Intertigo</u>: Intertrigo is a common cutaneous disorder characterized by inflammation of intertriginous skin. Moisture and friction within skin folds are important contributors to the development of this condition. The classic clinical findings of intertrigo are moist, red or red-brown patches within skin folds. The groin is the most common site of involvement. The other sites are the axilla, under the breasts, neck folds in infants, under the panniculus, and finger and toe web spaces. Burning, tenderness, pruritus, and malodor may accompany the physical manifestations (Brodell et al., 2023).

<u>Panniculectomy:</u> Panniculectomy involves the removal of hanging excess skin/fat in a transverse or vertical wedge but does not include muscle plication, neoumbilicoplasty, or flap elevation. The excess skin is referred to as an "apron". Unlike a "tummy tuck", the panniculectomy does not tighten the abdominal muscles for a more cosmetic appearance, disqualifying it as a cosmetic procedure (Hayes, 2020; Regan, 2022).

VI. BACKGROUND

Panniculectomy is an operative procedure used for abdominal wall contouring, changing the shape and form of the abdomen. This procedure is performed on patients with a large overhanging abdominal panniculus. A panniculus is an apron of excess skin and fat that hangs down from the abdomen. The excess skin and fat is secondary to weight gain and can sometimes cover the anterior thighs, hips and knees. A major issue is that a large panniculus can lead to a severe impact on activities of daily life. Some common complaints of patients with a substantially large pannus are skin infections and rashes due to constant irritation and sweating. A panniculectomy is performed to relieve these symptoms and restore formal function. During a panniculectomy, the excess skin and fat are removed. Tightening or plication of the abdominal wall muscle is not performed, which differentiates this procedure from an abdominoplasty - a cosmetic procedure usually involving facial plication (Sach et al., 2022).

The grading system for panniculi categorized their severity, where Grade 1 is mild and Grade 5 is extremely severe (ASPS, 2017; Hayes, 2020):

- Grade 1 Panniculus covers hairline and mons pubis but not the genitals
- Grade 2 Panniculus covers genitals and upper thigh crease
- Grade 3 Panniculus covers upper thigh
- Grade 4 Panniculus covers mid-thigh
- Grade 5 Panniculus covers knees and below

Following bariatric surgery and other life-changing procedures that cause massive weight loss, patients are often left with excess tissue, manifesting as large areas of redundant skin that can cause psychological distress, medical complications, and anatomical deformities. Several studies have highlighted the benefits of removing excess skin following dramatic weight loss in order to address these issues. A sizable systematic review and meta-analysis of literature related to quality of life in post-bariatric patients conducted by Toma et al. in 2019 showed that body contouring surgery resulted in statistically significant improvements in physical functioning, physiological wellbeing and social functioning, as well as reduction in BMI. According to Toma et. al., body contouring surgery offers a strategy to improve the quality of life in patients suffering from the functional and psychosocial consequences of excess skin after bariatric surgery (Toma et al., 2018).

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Intertrigo is a common cutaneous disorder characterized by inflammation of intertriginous skin. Moisture and friction within skin folds are important contributors to the development of this condition. Fungal or bacterial infection or colonization of skin folds may initiate or exacerbate intertrigo. Candidal skin infection commonly coexists with intertrigo. The classic clinical findings of intertrigo are moist, red or red-brown patches within skin folds. The groin is the most common site of involvement. The other sites are the axilla, inframammary skin, umbilicus, neck folds in infants, under the panniculus, and finger and toe web spaces. Burning, tenderness, pruritus, and malodor may accompany the physical manifestations. Minimizing moisture and friction in skin folds and reducing susceptibility to intertrigo is the mainstay of treatment. Conventional medical treatment includes topical antifungal drugs with anticandidal activity (e.g., azoles) and low-potency topical corticosteroids. Intertrigo may recur after treatment. Measures to minimize moisture within skin folds should be continued after treatment to minimize the risk of recurrence (Brodell et al., 2023).

Body contouring after weight loss is becoming more prevalent. An appropriate systematic approach to surgery starts from the first consultation and needs to focus on residual comorbidities and weight of the patient. A thorough discussion about potential outcomes manages expectations. Preoperative optimization with smoking, herbal cessation, and nutritional assessment is mandatory. Specifically, smokers tend to have significantly higher overall complication rates and tissue necrosis rates, so detection and management of patients using tobacco products can help to optimize outcomes. Patients with poor health, including advanced cardiopulmonary disease, cirrhosis, and uncontrolled diabetes are poor candidates for this procedure. A planned staged approach minimizes lengthy procedures associated with increased postoperative morbidity (Coon et al., 2013; Kokosis & Coon, 2019; Regan & Casaubon, 2022).

Panniculectomy should be considered a reconstructive procedure when performed to correct or relieve structural defects of the abdominal wall, improve skin health within the fold beneath the panniculus or skin areas covered by the panniculus, and/or help to improve chronic low back pain due to functional incompetence of the anterior abdominal wall. When an abdominoplasty or panniculectomy is performed solely to enhance a patient's appearance in the absence of any signs or symptoms of functional abnormalities, the procedure should be considered cosmetic in nature and not a compensable procedure unless specified in the patient's plan (ASPS, 2023).

VII. CODING DISCLAIMER

CPT[®] Copyright 2023 American Medical Association. All rights reserved. CPT is a registered trademark of the American Medical Association.

Note: The following CPT/HCPCS codes are included below for informational purposes and may not be all inclusive. Inclusion or exclusion of a CPT/HCPCS code(s) below does not signify or imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member's specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee of payment. Other policies and coverage determination guidelines may apply.

Note: All inpatient admissions require pre-authorization.

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Adherence to the provision in this policy may be monitored and addressed through post-payment data analysis and/or medical review audits

Advantage MD: Regulatory guidance supersedes JHHP Medical Policies. If there are no statutes, regulations, NCDs, LCDs, or LCAs, or other CMS guidelines, apply the Medical Policy criteria.

Employer Health Programs (EHP): Specific Summary Plan Descriptions (SPDs) supersedes JHHP Medical Policy. If there are no criteria in the SPD, apply the Medical Policy criteria.

Johns Hopkins Health Plan of Virginia Inc. (JHHPVA): Regulatory guidance supersedes JHHP Medical Policies. If there are no statutes, regulations, NCDs, LCDs, or LCAs, or other CMS guidelines, apply the Medical Policy criteria.

Priority Partners (PPMCO): Regulatory guidance supersedes JHHP Medical Policy. If there are no criteria in COMAR regulations, or other State guidelines, apply the Medical Policy criteria.

US Family Health Plan (USFHP): Regulatory guidance supersedes JHHP Medical Policy. If there are no TRICARE policies, or other regulatory guidelines, apply the Medical Policy criteria.

VIII. CODING INFORMATION

CPT ® CODE	DESCRIPTION
15830	Excision, excessive skin and subcutaneous tissue (includes lipectomy); abdomen, infraumbilical
	panniculectomy

ICD10 CODES	DESCRIPTION
M79.3	Panniculitis, unspecified

IX. REFERENCE STATEMENT

Analyses of the scientific and clinical references cited below were conducted and utilized by the Johns Hopkins Health Plans (JHHP) Medical Policy Team during the development and implementation of this medical policy. The Medical Policy Team will continue to monitor and review any newly published clinical evidence and revise the policy and adjust the references below accordingly if deemed necessary.

X. REFERENCES

Aetna. (2023 March 30). *Abdominoplasty, Suction Lipectomy, and Ventral Hernia Repair*. Medical Clinical Policy Bulletin Number: 0211. http://www.aetna.com

American Society of Plastic Surgeons (ASPS). (2023). Panniculectomy. ASPS Recommended Insurance Coverage Criteria for Third-Party Payers. https://www.plasticsurgery.org

American Society of Plastic Surgeons (ASPS). (2017). Practice Parameter for Surgical Treatment of Skin Redundancy for Obese and Massive Weight Loss Patients. https://www.plasticsurgery.org/

American Society of Plastic Surgeons (ASPS). (2017). Recommended Insurance Coverage Criteria for Third-Party Payers: Surgical Treatment of Skin Redundancy for Obese and Massive Weight Loss Patients. http://www.plasticsurgery.org

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Arthurs, Z.M., Cuadrado, D., Sohn, V., Wolcott, K., Lesperance, K., Carter, P., & Sebesta, J. (2007). Post-bariatric panniculectomy: pre-panniculectomy body mass index impacts the complication profile. *American journal of surgery*, 193(5),567-570. https://doi.org/10.1016/j.amjsurg.2007.01.006

Azin, A., Zhou, C., Jackson, T., Cassin, S., Sockalingam, S., & Hawa, R. (2014). Body contouring surgery after bariatric surgery: a study of cost as a barrier and impact on psychological well-being. Plastic & reconstructive surgery,133(6),776e-782e. https://doi.org/10.1097/PRS.00000000000000227

Barcha, C. P., & Ranzer, M. J. (2018). Smoking as a risk factor for panniculectomy: An analysis of 7650 cases. *Journal of Plastic, Reconstructive & Aesthetic Surgery*. 71(5), 767-769. https://doi.org/10.1016/j.bjps.2017.12.014

BlueCross BlueShield of North Carolina. (2022, August). *Abdominoplasty, Panniculectomy and Lipectomy*. Corporate Medical Policy. http://www.bcbsnc.com

Brodell R.T., Dolohanty, L.B., Fowler, J., & Ofori. A.O. (2023). Intertrigo. *UpToDate*. Retrieved July 17, 2023 from https://www.uptodate.com/

Cabbabe, SW. (2016). Plastic surgery after massive weight loss. Missouri Medicine, 113(3), 202-6.

Cadwell, J. B., Ahsanuddin, S., Ayyala, H. S., & Ignatiuk, A. (2021). Panniculectomy Outcomes by Body Mass Index: an Analysis of 12,732 Cases. *Obesity surgery*, *31*(8), 3660–3666. https://doi.org/10.1007/s11695-021-05468-w

Cigna. (2023, March 15). *Panniculectomy and Abdominoplasty*. Medical Coverage Policy Number: 0027. https://cignaforhep.cigna.com

Coon, D., Tuffaha, S., Christensen, J., & Bonawitz, S. C. (2013). Plastic surgery and smoking: a prospective analysis of incidence, compliance, and complications. *Plastic and reconstructive surgery*, *131*(2), 385–391. https://doi.org/10.1097/PRS.0b013e318277886a

Coon, D., Gusenoff, J.A., Kannan, N., El Khoudary, S. R., Naghshineh, N., & Rubin, J. P. (2009). Body mass and surgical complications in the postbariatric reconstructive patient; analysis of 511 cases. *Annals of surgery*, 249(3); 397-401. https://doi.org/10.1097/SLA.0b013e318196d0c6

Hayes, Inc. (2023). Evidence Analysis Research Brief: Panniculectomy for Treatment of Symptomatic Panniculi. https://evidence.hayesinc.com/

Hayes, Inc. (2020). Health Technology Assessment: Panniculectomy For Treatment of Symptomatic Panniculi. [Archived Jun19, 2021] https://evidence.hayesinc.com

Hayes, Inc. (2012). Health Technology Brief: Panniculectomy for Abdominal Contouring Following Massive Weight Loss. [Archived Oct19, 2015]. https://evidence.hayesinc.com

Humana. (2022, October 27). Panniculectomy, Abdominoplasty, Abdominal Contouring. Medical Coverage Policy: HCS-0360-014. http://apps.humana.com/

Janis, J.E., Jefferson, R.C., & Kraft, C.T. (2020). Panniculectomy: Practical Pearls and Pitfalls. *Plastic and reconstructive surgery*. *Global open*, 8(8), e3209. https://doi.org/10.1097/GOX.0000000000003029

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Kantar, R. S., Rifkin, W. J., Wilson, S. C., David, J. A., Diaz-Siso, J. R., Levine, J. P., Golas, A. R., & Ceradini, D. J. (2018). Abdominal panniculectomy: Determining the Impact of Diabetes on Complications and Risk Factors for Adverse Events. *Plastic and reconstructive surgery*, 142(4), 462e-471e. https://doi.org/10.1097/PRS.000000000000004732

Kokosis, G., & Coon, D. (2019). Safety in Body Contouring to Avoid Complications. *Clinics in plastic surgery*, 46(1), 25–32. https://doi.org/10.1016/j.cps.2018.08.004

Krueger, J. K., & Rohrich, R. J. (2001). Clearing the smoke: the scientific rationale for tobacco abstention with plastic surgery. *Plastic and reconstructive surgery*, *108*(4), 1063-1077. https://doi.org/10.1097/00006534-200109150-00042

Manahan, M.A., & Shermak, M.A. (2006). Massive Panniculectomy after Massive Weight Loss. *Plastic and Reconstructive Surgery*, 117(7), 2191-2199. https://doi.org/10.1097/01.prs.0000218174.89832.78

Manzoni, A. P., & Weber, M. B. (2015). Skin changes after bariatric surgery. *Anais Brasileiros de Dermatologia*, 90(2), 157-66. https://doi.org/10.1590/abd1806-4841.20153139

Marouf, A., & Mortada, H. (2021). Complications of Body Contouring Surgery in Postbariatric Patients: A Systematic Review and Meta-Analysis. *Aesthetic plastic surgery*, 45(6), 2810–2820. https://doi.org/10.1007/s00266-021-02315-2

Maryland Department of Health (MDH). (2020). Panniculectomy/Abdominoplasty. https://health.maryland.gov/

Mechanick, J.I., Youdim, A., Jones, D.B., Garvey, W.T., Hurley, D.L., McMahon, M.M., Heinberg, L.J., Kushner, R., Adams, T.D., Shikora, S., Dixon, J.B., Brethauer, S., American Association of Clinical Endocrinologists, Obesity Society, & American Society for Metabolic & Bariatric Surgery (2013). Clinical practice guidelines for the perioperative nutritional, metabolic, and nonsurgical support of the bariatric surgery patient- 2013 update: cosponsored by American Association of Clinical Endocrinologists, The Obesity Society, and American Society for Metabolic & Bariatric Surgery. *Obesity(Silver Spring, Md.)*, 21 Suppl 1(0 1), S1-S27. https://doi.org/10.1002%2Foby.20461

Michaels, J., 5th, Coon, D., Calotta, N.A., & Peter Rubin, J. (2018). Surgical Management of the Giant Pannus: Indications, Strategies, and Outcomes. *Aesthetic plastic surgery*, 42(2), 369-375. https://doi.org/10.1007/s00266-017-1041-6

Mizell, J.S., Rosen, M., & Chen, W. (2023). Complications of Abdominal Surgical Incisions. *UpToDate*. Retrieved July 18, 2023 from http://www.uptodate.com

Mizell, J.S., Rosen, M., & Chen, W. (2023). Incisions for open abdominal surgery. *UpToDate*. Retrieved July 18, 2023 from https://www.uptodate.com/

Naghshineh, J., O'Brien-Coon, D., McTigue, K., Courcoulas, A. P., Fernstrom, M., & Rubin, J. P. (2010). Nutritional assessment of bariatric surgery patients presenting for plastic surgery; a prospective analysis. *Plastic and reconstructive surgery*, *126*(2): 602-610. https://doi.org/10.1097/PRS.0b013e3181de2473

Ngaage, L. M., Elegbede, A., Pace, L., Rosen, C., Tannouri, S., Rada, E. M., Kligman, M. D., & Rasko, Y. M. (2020). Review of Insurance Coverage for Abdominal Contouring Procedures in the Postbariatric Population. *Plastic and reconstructive surgery*, 145(2), 545–554. https://doi.org/10.1097/PRS.00000000000000513

Regan, J.P., & Casaubon, J.T., (2022). NCBI: Abdominoplasty. In: *StatPearls*. StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK431058/

Sachs, D., Sequira Campos, M., & Murray, J., (2022). Panniculectomy. In StatPearls. StatPearls Publishing.

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Sameul, A.R., Hakami, L., Campbell, C., DeGeorge, B.R., Jr., Black, J., & Stranix, J.T.(2022). "Abdominal panniculectomy: Identifying complications and potential risk factors". *Journal of plastic, reconstructive & aesthetic surgery: JPRAS*, 75(9), 3534-3540. https://doi.org/10.1016/j.bjps.2022.04.061

Shermak, M.A., Rotellini-Coltvet, L.A., & Chang, D. (2008). Seroma development following body contouring surgery for massive weight loss: patient risk factors and treatment strategies. *Plastic and reconstructive surgery*, *122*(1), 280-288. https://doi.org/10.1097/PRS.0b013e31817742a9

Sorensen, L. T. (2012). Wound healing and infection in surgery: The clinical impact of smoking and smoking cessation: a systematic review and meta-analysis. *Archives of Surgery (Chicago, Ill. : 1960), 147*(4), 373-383. https://doi.org/10.1001/archsurg.2012.5

Stewart, C.M., Faaborg-Andersen, C., Baker, N., & Losken, A. (2021). Evaluating Outcomes and Weight Loss After Panniculectomy. *Annals of plastic surgery*, 87(5), 552-555. https://doi.org/10.1097/SAP.0000000000000002942

Telem, D.A., Jones, D.B., Schauer, P.R., Brethauer, S.A., Rosenthal, R.J., Provost, D., Jones, S.B., and Society of American Gastrointestinal and Endoscopic Surgeons (SAGES). (2018). Updates Panel Report: Best Practices For The Surgical Treatment of Obesity. *Surg Endosc.* https://www.sages.org/

Theocharidis, V., Katsaros, I., Sgouromallis, E., Serifis, N., Boikou, V., Tasigiorqos, S., Kokosis, G., & Economopoulos, K. P. (2018). Current evidence on the role of smoking in plastic surgery elective procedures: A systematic review and meta-analysis. *Journal of plastic, reconstructive & aesthetic surgery: JPRAS, 71*(5), 624-636. https://doi.org/10.1016/j.bjps.2018.01.011

Toma, T., Harling, L., Athanasiou, T., Darzi, A., & Ashrafian, H. (2018). Does Body Contouring After Bariatric Weight Loss Enhance Quality of Life? A Systematic Review of QOL Studies. *Obesity Surgery*, 28(10): 3333-3341. https://doi.org/10.1007/s11695-018-3323-8

Tremp, M., Delko, T., Kraljevic, M., Zingg, U., Rieger, U. M., Haug, M., & Kalbermatten, D. F. (2015). Outcome in body-contouring surgery after massive weight loss: A prospective matched single-blind study. *Journal of plastic, reconstructive, and aesthetic surgery: JPRAS*, 68(10),1410-1416. https://doi.org/10.1016/j.bjps.2015.05.035

United HealthCare. (2023, June 1). *Panniculectomy and Body Contouring Procedures*. Medical Policy Number MP.014.21. https://www.uhcprovider.com/

XI. APPROVALS

Historical Effective Dates: 10/22/2003, 10/22/2004, 10/21/2005/05/30/2006, 10/13/2006, 10/22/2007, 03/03/2008, 03/02/2009, 06/04/2010, 08/23/2011, 03/07/2014, 09/05/2014, 12/05/2014, 12/02/2016, 06/02/2017, 05/01/2020, 11/01/2021, 08/16/2022, 11/01/2022, 11/01/2023

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