

Reimbursement Policy

Policy Number: RPLAB034

Policy Title: Salivary Hormone Testing

Approval Date: May 15, 2026

Effective Date: Sept. 4, 2026

Policy Disclaimer

If a conflict arises between a Reimbursement Policy and any Plan document under which a member is entitled to covered services, the Plan document will govern. If a conflict arises between a reimbursement policy and any provider contract pursuant to which a provider participates in and/or provides covered services to eligible member(s) and/or plans, the provider's contract will govern. "Plan documents" include, but are not limited to, Certificates of Health Care Benefits, Benefit Booklets, Summary Plan Descriptions, and other coverage documents. Blue Cross and Blue Shield of Oklahoma may use reasonable discretion interpreting and applying this policy to services being delivered in a particular case. BCBSOK has full and final discretionary authority for their interpretation and application to the extent provided under any applicable Plan documents.

Providers are responsible for submitting accurate documentation of services performed. Providers are expected to submit claims for services rendered using valid code combinations from Health Insurance Portability and Accountability Act approved code sets. Claims should be coded appropriately according to industry standard coding guidelines including, but not limited to: Uniform Billing Editor, American Medical Association, Current Procedural Terminology (CPT®) Assistant, Healthcare Common Procedure Coding System, ICD-10-CM and ICD-10-PCS, National Drug Codes, Diagnosis Related Group guidelines, Centers for Medicare & Medicaid Services National Correct Coding Initiative Policy Manual, CCI table edits and other CMS guidelines.

Claims are subject to the code edit protocols for services and procedures billed. Claim submissions are subject to claim review, including but not limited to, any terms of benefit coverage, provider contract language, medical policies, and reimbursement policies, as well as coding software logic. Upon request, the provider is urged to submit any additional documentation.

Description

The Plan has implemented certain lab management reimbursement criteria. Not all requirements apply to each product. Providers are urged to review Plan documents for eligible coverage for services rendered.

Reimbursement Information

1. For the diagnosis of Cushing syndrome, late night salivary cortisol testing **may be reimbursable**.
2. For the screening, diagnosis, **and/or** monitoring of menopause, infertility, endometriosis, polycystic ovary disease (PCOS), premenstrual syndrome, osteoporosis, sexual dysfunction, seasonal affective disorder, depression, multiple sclerosis, sleep disorders, **or** diseases related to aging, **or** for risk assessment for preterm labor or delivery, salivary hormone testing **is not reimbursable**.

Procedure Codes

The following is not an all-encompassing code list. The inclusion of a code does not guarantee it is a covered service or eligible for reimbursement.

Code	Description
82530	CORTISOL FREE
82533	TOTAL CORTISOL
0462U	MELATONIN LVL TST SLP STD7/9
S3650	Saliva test, hormone level;
S3652	Saliva test, hormone level;

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Centers for Medicare & Medicaid Services. (2026). Healthcare Common Procedure Coding System (HCPCS) Level II.

References

1. ACOG, ASRM. Compounded bioidentical menopausal hormone therapy. *Fertility and sterility*. Aug 2012;98(2):308-12. doi:10.1016/j.fertnstert.2012.06.002
2. Nieman, Biller BM, Findling JW, et al. The diagnosis of Cushing's syndrome: an Endocrine Society Clinical Practice Guideline. *The Journal of clinical endocrinology and metabolism*. May 2008;93(5):1526-40. doi:10.1210/jc.2008-0125

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3. Nieman LK. Causes and pathophysiology of Cushing's syndrome. Updated September 19, 2024. <https://www.uptodate.com/contents/causes-and-pathophysiology-of-cushing-syndrome>
 4. Lacroix A, Felders RA, Stratakis CA, Nieman LK. Cushing's syndrome. *Lancet (London, England)*. Aug 29 2015;386(9996):913-27. doi:10.1016/s0140-6736(14)61375-1
 5. Quddusi S, Browne P, Toivola B, Hirsch IB. Cushing syndrome due to surreptitious glucocorticoid administration. *Archives of internal medicine*. Feb 09 1998;158(3):294-6. doi:10.1001/archinte.158.3.294
 6. Wood P. Salivary steroid assays - research or routine? *Annals of clinical biochemistry*. May 2009;46(Pt 3):183-96. doi:10.1258/acb.2008.008208
 7. Conaway E. Bioidentical hormones: an evidence-based review for primary care providers. *The Journal of the American Osteopathic Association*. Mar 2011;111(3):153-64.
 8. Flyckt RL, Liu J, Frasure H, Wekselman K, Buch A, Kingsberg SA. Comparison of salivary versus serum testosterone levels in postmenopausal women receiving transdermal testosterone supplementation versus placebo. *Menopause (New York, NY)*. Jul-Aug 2009;16(4):680-8. doi:10.1097/gme.0b013e318199d5c4
 9. Lewis JG, McGill H, Patton VM, Elder PA. Caution on the use of saliva measurements to monitor absorption of progesterone from transdermal creams in postmenopausal women. *Maturitas*. Jan 30 2002;41(1):1-6. doi:10.1016/s0378-5122(01)00250-x
 10. Hardiman P, Thomas M, Osgood V, Vlassopoulou V, Ginsburg J. Are estrogen assays essential for monitoring gonadotropin stimulant therapy? *Gynecological endocrinology : the official journal of the International Society of Gynecological Endocrinology*. Dec 1990;4(4):261-9. doi:10.3109/09513599009024980
 11. Klee GG, Heser DW. Techniques to measure testosterone in the elderly. *Mayo Clinic proceedings*. Jan 2000;75 Suppl:S19-25. doi:10.1016/S0025-6196(19)30637-8
 12. Meulenbergh PM, Ross HA, Swinkels LM, Benraad TJ. The effect of oral contraceptives on plasma-free and salivary cortisol and cortisone. *Clinica chimica acta; international journal of clinical chemistry*. Jun 15 1987;165(2-3):379-85. doi:10.1016/0009-8981(87)90183-5
 13. Wren BG, McFarland K, Edwards L, et al. Effect of sequential transdermal progesterone cream on endometrium, bleeding pattern, and plasma progesterone and salivary progesterone levels in postmenopausal women. *Climacteric : the journal of the International Menopause Society*. Sep 2000;3(3):155-60. doi:10.1080/13697130008500109
 14. Martin KA, Barbieri RL. Menopausal hormone therapy: Benefits and risks. Updated March 3, 2026. <https://www.uptodate.com/contents/menopausal-hormone-therapy-benefits-and-risks>
 15. Taylor HS, Manson JE. Update in hormone therapy use in menopause. *The Journal of clinical endocrinology and metabolism*. Feb 2011;96(2):255-64. doi:10.1210/jc.2010-0536
 16. Genova. Menopause™ The Original Genova Salivary Sex-Hormone Test. <https://www.gdx.net/core/sample-reports/Menopause-Sample-Report.pdf>
 17. Genova. Hormonal Health. <https://www.gdx.net/hormonal-health>
 18. Nieman LK. Measurement of cortisol in serum and saliva. Updated April 2, 2024. <https://www.uptodate.com/contents/measurement-of-cortisol-in-serum-and-saliva>
 19. Nieman LK. Establishing the diagnosis of Cushing's syndrome. Updated December 3, 2025. <https://www.uptodate.com/contents/establishing-the-diagnosis-of-cushing-syndrome>

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20. Fleseriu M, Hamrahian AH, Hoffman AR, Kelly DF, Katznelson L. American Association of Clinical Endocrinologists and American College of Endocrinology Disease State Clinical Review: Diagnosis of Recurrence in Cushing Disease. *Endocr Pract.* Dec 2016;22(12):1436-1448. doi:10.4158/ep161512.Dscr
 21. ZRTLAB. LCMS Saliva Steroid & Steroid Synthesis Inhibitor Profile. <https://www.zrtlab.com/media/2405/lcms-saliva-steroid-profile-pds.pdf>
 22. UnikeyHealth. Salivary Hormone Test. <https://unikeyhealth.com/products/salivary-hormone-test>
 23. Genova. Rhythm™ Sample Report. <https://www.gdx.net/core/sample-reports/Rhythm-Sample-Report.pdf>
 24. Genova. Menopause Plus™ Sample Report. 2026. <https://www.gdx.net/core/sample-reports/Menopause-Plus-Sample-Report.pdf>
 25. Genova. Comprehensive Melatonin Profile Sample Report. <https://www.gdx.net/core/sample-reports/Melatonin-Sample-Report.pdf>
 26. Genova. Adrenocortex Stress Profile. <https://www.gdx.net/product/adrenocortex-stress-hormone-test-saliva>
 27. Spence K, McKeever E, Graham U, et al. Salivary cortisol determination using the Roche generation II assay. 2018;doi:10.1530/endoabs.59.P007
 28. Wurtman. Multiple Sclerosis, Melatonin, and Neurobehavioral Diseases. *Frontiers in endocrinology.* 2017;8:280. doi:10.3389/fendo.2017.00280
 29. Rossouw JE, Anderson GL, Prentice RL, et al. Risks and benefits of estrogen plus progestin in healthy postmenopausal women: principal results From the Women's Health Initiative randomized controlled trial. *Jama.* Jul 17 2002;288(3):321-33. doi:10.1001/jama.288.3.321
 30. Schiffer L, Adaway JE, Arlt W, Keevil BG. A liquid chromatography-tandem mass spectrometry assay for the profiling of classical and 11-oxygenated androgens in saliva. *Annals of clinical biochemistry.* Sep 2019;56(5):564-573. doi:10.1177/0004563219847498
 31. El-Farhan N, Rees DA, Evans C. Measuring cortisol in serum, urine and saliva - are our assays good enough? *Annals of clinical biochemistry.* May 2017;54(3):308-322. doi:10.1177/0004563216687335
 32. Li XS, Li S, Kellermann G. Simultaneous determination of three estrogens in human saliva without derivatization or liquid-liquid extraction for routine testing via miniaturized solid phase extraction with LC-MS/MS detection. *Talanta.* Feb 1 2018;178:464-472. doi:10.1016/j.talanta.2017.09.062
 33. Hinojosa-Amaya JM, Varlamov EV, McCartney S, Fleseriu M. Hypercortisolemia Recurrence in Cushing's Disease; a Diagnostic Challenge. *Frontiers in endocrinology.* 2019;10:740. doi:10.3389/fendo.2019.00740
 34. Nunes ML, Vattaut S, Corcuff JB, et al. Late-night salivary cortisol for diagnosis of overt and subclinical Cushing's syndrome in hospitalized and ambulatory patients. *The Journal of clinical endocrinology and metabolism.* Feb 2009;94(2):456-62. doi:10.1210/jc.2008-1542
 35. Ueland GÅ, Kellmann R, Jørstad Davidsen M, et al. Bedtime Salivary Cortisol as a Screening Test for Cushing Syndrome in Children. *Journal of the Endocrine Society.* 2021;5(5)doi:10.1210/jendso/bvab033

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36. Sakkas D, Howles CM, Atkinson L, et al. A multi-centre international study of salivary hormone oestradiol and progesterone measurements in ART monitoring. *Reprod Biomed Online*. Oct 24 2020;doi:10.1016/j.rbmo.2020.10.012
 37. Doi SA, Clark J, Russell AW. Concordance of the late night salivary cortisol in patients with Cushing's syndrome and elevated urine-free cortisol. *Endocrine*. Apr 2013;43(2):327-33. doi:10.1007/s12020-012-9855-0
 38. Antonelli G, Ceccato F, Artusi C, Marinova M, Plebani M. Salivary cortisol and cortisone by LC-MS/MS: validation, reference intervals and diagnostic accuracy in Cushing's syndrome. *Clinica chimica acta; international journal of clinical chemistry*. Dec 7 2015;451(Pt B):247-51. doi:10.1016/j.cca.2015.10.004
 39. Crewther BT, Obminski Z, Orysiak J, Al-Dujaili EAS. The utility of salivary testosterone and cortisol concentration measures for assessing the stress responses of junior athletes during a sporting competition. *J Clin Lab Anal*. Jan 2018;32(1)doi:10.1002/jcla.22197
 40. Valassi E, Franz H, Brue T, et al. Diagnostic tests for Cushing's syndrome differ from published guidelines: data from ERCUSYN. *Eur J Endocrinol*. May 2017;176(5):613-624. doi:10.1530/eje-16-0967
 41. Oldenburg M, Jensen HJ. Saliva cortisol level as a strain parameter for crews aboard merchant ships. *Chronobiol Int*. Jul 2019;36(7):1005-1012. doi:10.1080/07420528.2019.1604540
 42. Kim YJ, Kim JH, Hong AR, et al. Stimulated Salivary Cortisol as a Noninvasive Diagnostic Tool for Adrenal Insufficiency. *Endocrinol Metab (Seoul)*. Sep 2020;35(3):628-635. doi:10.3803/EnM.2020.707
 43. Kvam Hellan K, Lyngstad M, Methlie P, Løvås K, Husebye ES, Ueland GÅ. Utility of Salivary Cortisol and Cortisone in the Diagnostics of Adrenal Insufficiency. *The Journal of Clinical Endocrinology & Metabolism*. 2024:dgae486. doi:10.1210/clinem/dgae486
 44. Brouillard A, Davignon L-M, Cernik R, et al. Comparing immunoassay and mass spectrometry techniques for salivary sex hormone analysis. *Psychoneuroendocrinology*. 2025/04/01/ 2025;174:107379. doi:10.1016/j.psyneuen.2025.107379
 45. Goodman NF, Cobin RH, Ginzburg SB, Katz IA, Woode DE. American Association of Clinical Endocrinologists Medical Guidelines for Clinical Practice for the diagnosis and treatment of menopause. *Endocr Pract*. Nov-Dec 2011;17 Suppl 6:1-25. doi:10.4158/EP.17.S6.1
 46. Cobin RH, Goodman NF. American Association of Clinical Endocrinologists and American College of Endocrinology Position Statement on Menopause–2017 Update. *Endocrine Practice*. 2017;23(7):869-881. doi:10.4158/EP171828.PS
 47. ACOG AJP, Belinda Yauger, ASRM. Compounded Bioidentical Menopausal Hormone Therapy. *Obstetrics and Gynecology*. 2023. <https://www.acog.org/-/media/project/acog/acogorg/clinical/files/clinical-consensus/articles/2023/11/compounded-bioidentical-menopausal-hormone-therapy.pdf>
 48. NAMS. The 2012 hormone therapy position statement of: The North American Menopause Society. *Menopause (New York, NY)*. Mar 2012;19(3):257-71. doi:10.1097/gme.0b013e31824b970a

49. NAMS. The 2022 hormone therapy position statement of The North American Menopause Society. *Menopause: The Journal of the North American Menopause Society*. 2022;doi:10.1097/GME.0000000000002028
50. Santoro N, Braunstein GD, Butts CL, Martin KA, McDermott M, Pinkerton JV. Compounded Bioidentical Hormones in Endocrinology Practice: An Endocrine Society Scientific Statement. *The Journal of clinical endocrinology and metabolism*. Apr 2016;101(4):1318-43. doi:10.1210/jc.2016-1271
51. Nieman. Cushing's syndrome: update on signs, symptoms and biochemical screening. *Eur J Endocrinol*. Oct 2015;173(4):M33-8. doi:10.1530/eje-15-0464

Policy History

Approval Date	Description
05/15/2026	09/04/2026; Document updated with literature review. The following change was made: Added "or for risk assessment for preterm labor or delivery" to the list of non-reimbursable services. Added code S3652. References revised.
04/28/2025	08/08/2025; Document updated with literature review. Reimbursement information unchanged. Removed the following codes: 82626, 82627, 82670, 82671, 82672, 82677, 82679, 82681, 84144, 84402, 84403, 84410. References revised.
10/30/2024	01/15/2025; Added code 0462U. No other changes.
06/15/2023	06/15/2023: Document updated with literature review. Reimbursement information revised for clarity. References updated; some revised, others removed.
11/1/2022	11/01/2022: New policy