Exploring the connection between

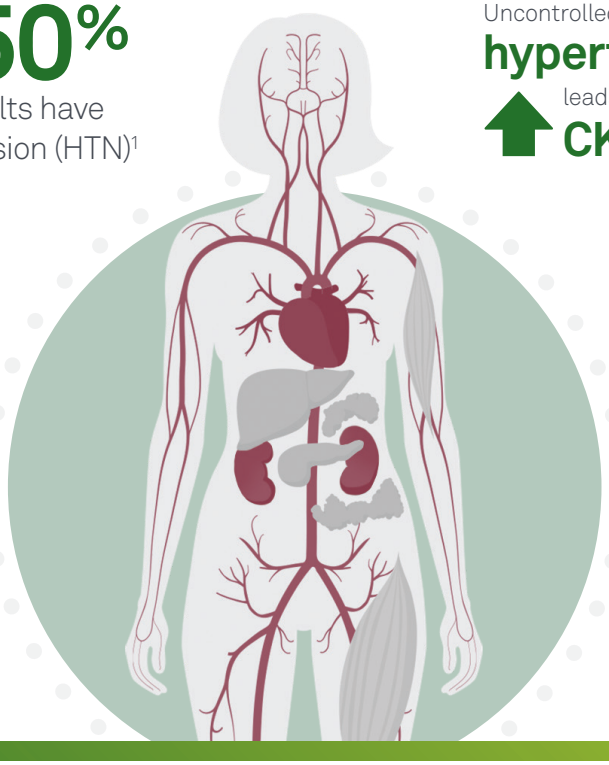
hypertension, primary aldosteronism, and chronic kidney disease

Hypertension (HTN) affects nearly half of US adults[1] and is the second leading cause of chronic kidney disease (CKD).[2] Primary aldosteronism (PA) is the leading endocrine cause of secondary hypertension and when left untreated can make blood pressure difficult to control and contribute to the progression of CKD.

~ 50%
of US adults have hypertension (HTN)[1]

Uncontrolled **hypertension** leads to **CKD risk[4]**

1 in 5 people with HTN may have CKD[1,2]



Patients with PA have a **50% increased risk of CKD[5]**

up to 30%
of HTN patients may have PA[3]

~ 14%
of CKD patients are tested for PA[6] but 39% meet PA criteria[7] (based on recommendations made by the Endocrine Society)

Less than 1% of HTN patients are currently screened for PA.[3,8] Approx 2/3 of HTN patients remain unscreened for albuminuria,[9,10] an early marker of kidney damage and CKD. **Current guidelines recommend screening all HTN patients for PA[11] and CKD[12,13] to support earlier detection, guide targeted treatment, and help reduce the development and progression of conditions like CKD.**

Test code	Test name
39165	Kidney Profile*
13817	Plasma Renin Activity (PRA) with Reflex to Aldosterone**

*Components may be ordered separately: Creatinine (includes eGFR) [375]; Albumin, Random Urine with Creatinine (includes Albumin/Creatinine Ratio) [6517]

**Components may be ordered separately: Plasma Renin Activity, LC/MS/MS [16846]; Aldosterone LC/MS/MS [17181]

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References

1. CDC. High blood pressure facts. January 28, 2025. Accessed May 12, 2026. https://www.cdc.gov/high-blood-pressure/data-research/facts-stats/index.html **2.** CDC. Chronic kidney disease among adults with hypertension. CDC Kidney Disease Surveillance System. Accessed May 15, 2026. https://wwwn.cdc.gov/kdss/detail.aspx?Qnum=Q764&topic=4& **3.** Lin LY, Lin YH, Chueh SJ, et al. Universal screening for primary aldosteronism in hypertensive patients: a 2025 Taipei positional paper. *J Clin Hypertens (Greenwich)*. 2025;27(9):e70102. doi:10.1111/jch.70102 **4.** Burier M, Damianaki A. Hypertension as cardiovascular risk factor in chronic kidney disease. *Circ Res*. 2023;132(8):1050-1063. doi:10.1161/CIRCRESAHA.122.321762 **5.** Townsend RR, Agiro A, Luan S, et al. Risk of Hypertension and Chronic Kidney Disease Following Aldosterone Dysregulation. *Am J Hypertens*. 2026;39(1):161-170. doi:10.1093/ajh/hpaf183 **6.** Chauhan K, Schachna E, Libianto R, et al. Screening for primary aldosteronism is underutilised in patients with chronic kidney disease. *J Nephrol*. 2022;35(6):1667-1677. doi:10.1007/s40620-022-01267-3 **7.** Kitlinski M, Dreja K, Heleniak Z, Dębska-Ślizień A. Renal dysfunction in primary aldosteronism: how, when, and who? *Kidney Dial*. 2025;5(1):3. doi:10.3390/kidneydial5010003 **8.** Passman JE, Hwang J, Tang J, et al. An active choice nudge to increase screening for primary aldosteronism in at-risk patients. *J Am Coll Surg*. 2025;240(1):46-59. doi:10.1097/XCS.0000000000001221 **9.** Kibbi R, Huang X, Vaishnavi K, et al. Albuminuria prevalence among US adults with cardiovascular-kidney-metabolic syndrome. *J Am Heart Assoc*. 2026;15(7):e045697. doi:10.1161/JAHA.125.045697 **10.** Chu CD, Xia F, Du Y, et al. Estimated prevalence and testing for albuminuria in U.S. adults at risk for chronic kidney disease. *JAMA Netw Open*. 2023;6(7):e2326230. doi:10.1001/jamanetworkopen.2023.26230 **11.** Adler GK, Stowasser M, Correa RR, et al. Primary aldosteronism: an Endocrine Society Clinical Practice Guideline. *J Clin Endocrinol Metab*. 2025;110(9):2453-2495. doi: 10.1210/clinem/dgaf284 **12.** Jones DW, Ferdinand KC, Taler SJ, et al. 2025 AHA/ACC/AANP/AAPA/ABC/ACCP/ACPM/AGS/AMA/ASPC/NMA/PCNA/SGIM guideline for the prevention, detection, evaluation and management of high blood pressure in adults: a report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Hypertension*. 2025;82(10):e212-e316. doi:10.1161/HYP.0000000000000249 **13.** Albekery MA, Alhomoud IS, Alabdulathim LS, et al. Underutilization of albuminuria screening in adults with diabetes mellitus or hypertension: a systematic review and meta-analysis. *BMC Nephrol*. 2025;27(1):18. doi:10.1186/s12882-025-04672-5

Test codes may vary by location. Please contact your local laboratory for more information.

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