

Hypertension

Key Facts

The Silent Killer

Hypertension, or high blood pressure, is a chronic condition in which the pressure in the blood vessels is permanently too high ($\geq 140/90$ mmHg). Because it often causes no symptoms, it frequently goes undetected—and therefore untreated. The only reliable way to detect it is through regular blood pressure monitoring. If left untreated, hypertension can lead to serious health problems such as stroke, heart attack, and kidney failure, and it is the leading cause of premature deaths worldwide.

Did you know?

- **1.28 billion adults** aged 30–79 worldwide have hypertension¹
- **Less than half** (42%) of adults with hypertension are diagnosed and treated¹
- Only **1 in 5 adults (21%)** with hypertension has their condition under control¹
- Hypertension is one of the **leading causes of premature death** globally¹
- Hypertension accounts for about **54% of strokes and 47% of ischemic heart diseases** globally²
- About **10% of global healthcare expenditure** is linked to high blood pressure³
- Estimated global costs of hypertension: **USD 370 billion**³

Uncontrolled Hypertension

Despite medication, some patients continue to have elevated blood pressure that is difficult to control.

This may be due to irregular medication use, diet, lifestyle, or underlying health conditions.

- Approximately **45%–81% of patients** with hypertension struggle with control⁴
- Worldwide, **10 million people** have high blood pressure despite taking 2 or more medications³

Uncontrolled hypertension increases the risk of stroke, aneurysm, heart failure, heart attack, and chronic kidney disease.

Treatment-Resistant Hypertension

Treatment-resistant hypertension affects patients whose blood pressure remains difficult to manage despite using three or more antihypertensive drugs, including a diuretic⁵.

- 20% of hypertension patients are considered treatment-resistant⁵
- Around 25% of patients with resistant hypertension have a secondary, identifiable, and treatable cause⁵

Primary Aldosteronism (PA) is one of the most common secondary causes of hypertension⁶:

- Present in about 10% of all patients with hypertension
- Present in 20% of patients with resistant hypertension⁶
- Only 2.1% of resistant hypertension patients are tested for PA⁷

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Primary Aldosteronism (PA)⁸

Primary Aldosteronism is a significant but often overlooked cause of hypertension. It affects 5–10% of all hypertension patients and up to 20% of those with treatment-resistant hypertension. It is caused by the overproduction of aldosterone, leading to sodium retention, potassium loss, and high blood pressure—substantially increasing the risk of cardiovascular and kidney disease.

Potential Complications:

Higher risk of kidney disease, heart failure & stroke:

- Kidney Disease: PA doubles the risk of chronic kidney disease progression
- Heart Failure: Elevated aldosterone contributes to left ventricular hypertrophy, atrial fibrillation, and heart failure
- Stroke & Cardiovascular Events: PA patients face a higher risk of ischemic and hemorrhagic strokes - even with controlled blood pressure

Guidelines & the Need for Early Diagnosis

Leading health organizations (e.g., Endocrine Society, American Heart Association, European Society of Hypertension) recommend early PA screening in high-risk groups (e.g. resistant hypertension, early-onset stroke). Increased awareness and routine PA testing are vital to prevent severe complications.

More Information: [Endocrine Society Guidelines](#)

Who is at Higher Risk for PA?

Patients with:

- Resistant or uncontrolled hypertension (despite multiple medications)
- Stage 2 or 3 hypertension
- Low potassium levels (hypokalemia)
- Atrial fibrillation
- Obstructive sleep apnea (OSA)
- Adrenal incidentaloma
- Family history of PA or early stroke
- Hypertension in individuals under 40 years of age

ALDO+PA: Early and Accurate Screening

Our CE-IVD-certified ALDO+PA test precisely screens for Primary Aldosteronism using mass spectrometry.

Patient Benefits

- **Early, accurate screening** - without the need to stop ongoing medication
- **Guideline-compliant** with ESH recommendations
- **Improved outcomes**—reduced risk of stroke, heart failure, and cardiovascular complications through early intervention and targeted treatment

1 WHO, 2 The Lancet, 3 The Lancet, 4 American Heart Association 5 John Hopkins medicine 6 NIH Library 7 American Heart Association 8 [Endocrine Society Guidelines](#)