

Section IV. Routine and Optional Laboratory Tests for the Investigation of Patients with Hypertension

**2015 Canadian Hypertension
Education Program
Recommendations**



IV. Routine Laboratory Tests

Preliminary Investigations of patients with hypertension

1. Urinalysis
2. Blood chemistry (potassium, sodium and creatinine)
3. Fasting glucose and/or glycated hemoglobin (A1c)
4. Fasting total cholesterol and high density lipoprotein cholesterol (HDL), low density lipoprotein cholesterol (LDL), triglycerides
5. Standard 12-leads ECG

Currently there is insufficient evidence to recommend routine testing of microalbuminuria in people with hypertension who do not have diabetes

IV. Routine Laboratory Tests

Follow-up investigations of patients with hypertension

- During the maintenance phase of hypertension management, tests (including electrolytes, creatinine, glucose, and fasting lipids) should be repeated with a frequency reflecting the clinical situation.
- Diabetes develops in 1-3%/year of those with drug treated hypertension. The risk is higher in those treated with a diuretic or beta blocker, in the obese, sedentary, with higher fasting glucose and who have unhealthy eating patterns. Assess for diabetes more frequently in these patients.

IV. Optional Laboratory Tests

Investigation in specific patient subgroups

- For those with diabetes or chronic kidney disease: assess urinary albumin excretion, since therapeutic recommendations differ if proteinuria is present.
- For those suspected of having an endocrine cause for the high blood pressure, or renovascular hypertension, see following slides.
- Other secondary forms of hypertension require specific testing.



Abnormal Urinary Albumin levels

Setting	Urinary albumin / creatinine level (mg/mmol)
Chronic kidney Disease	>30
Diabetes	≥ 2