NCLEX lab values reference sheet

Normal adult ranges, example critical values and a five-step method for acting on an abnormal result. Laboratories set their own ranges, and the NCLEX prints the range with each numeric result, so always read the range you are given.

Normal adult ranges

Test	Normal range
Sodium	135 to 145 mEq/L
Potassium	3.5 to 5.0 mEq/L
Calcium, total	9.0 to 10.5 mg/dL
Magnesium	1.8 to 2.6 mg/dL
Phosphorus	3.0 to 4.5 mg/dL
Hemoglobin	Male 13.5 to 17.5 g/dL; female 12.0 to 16.0 g/dL
Hematocrit	Male 42 to 52%; female 37 to 47%
Platelets	150,000 to 450,000/µL
WBC	4,500 to 11,000/µL
PT	11 to 12.5 seconds
INR	0.8 to 1.2 (warfarin target often 2.0 to 3.0)
aPTT	30 to 40 seconds (heparin target set by order)
pH	7.35 to 7.45
PaCO2 (carbon dioxide)	35 to 45 mmHg
HCO3	22 to 26 mEq/L
PaO2 (oxygen)	80 to 100 mmHg
BUN	6 to 20 mg/dL
Creatinine	Male 0.7 to 1.3 mg/dL; female 0.5 to 0.95 mg/dL
Fasting glucose	70 to 99 mg/dL (below 70 is low; below 54 is severe)

Sources: Medly's NCLEX-RN lessons (electrolytes, CBC, coagulation); MedlinePlus (BUN, creatinine); CDC (low blood sugar). ABG ranges as most nursing programs teach them. Last checked: November 17, 2026.

Example critical values (University of Iowa, adults)

Test	Critical low	Critical high
Potassium	Below 2.8 mEq/L	Above 6.2 mEq/L

Test	Critical low	Critical high
Sodium	Below 120 mEq/L	Above 160 mEq/L
Glucose	Below 50 mg/dL	Above 450 mg/dL
Calcium, total	Below 6.0 mg/dL	Above 13.0 mg/dL
Magnesium	Below 1.0 mg/dL	Above 4.7 mg/dL
Hemoglobin	6 g/dL or less	22 g/dL or more
Platelets	10,000/mm³ or less	1,000,000/mm³ or more
INR	None set	4.0 or more
pH	Below 7.20	Above 7.60
PaCO2	Below 20 mmHg	Above 70 mmHg

Every hospital sets its own critical values. A fast trend or new symptoms can make a result urgent before it reaches the threshold.

Five steps for any abnormal result

1. Compare the value with the printed range and the client's baseline.
2. Check the specimen for hemolysis or IV contamination, without delaying care for an unwell client.
3. Assess the client: symptoms, vital signs, heart rhythm, intake and output.
4. Look for the cause: kidney function, fluid losses, medications, supplements, recent surgery.
5. Hold any dose that would make the result worse, then report the value, trend, assessment and actions to the provider.

Reading an ABG

1. pH below 7.35 is acidosis; above 7.45 is alkalosis.
2. PaCO2 moving opposite to pH means a respiratory cause.
3. HCO3 moving the same way as pH means a metabolic cause.
4. If the other value has also moved, the body is compensating.

Quick formulas

- Corrected calcium = measured calcium + 0.8 × (4 albumin), in mg/dL with albumin in g/dL.
- Heparin aPTT target of 1.5 to 2 times control: multiply the control value by 1.5 and by 2.