

How to Read Your Laboratory Report

What each column means, why a flag is not a diagnosis, and why ranges differ between laboratories

A FLAGGED RESULT IS NOT AUTOMATICALLY A PROBLEM

Reference ranges are statistical. By design, a portion of healthy people fall outside them. Only your clinician can interpret a result alongside your history, medicines, and symptoms.

REPORT TYPE	PATIENT	COLLECTED	REPORTED
Annotated specimen report	Demonstration patient	March 12, 2027 08:14	March 13, 2027 06:02

A TYPICAL REPORT, ANNOTATED

TEST	RESULT	FLAG	REFERENCE RANGE	UNITS	PREVIOUS (12/2026)	METHOD
Sodium	139		136 – 145	mmol/L	140	ISE
Potassium	3.4	L	3.5 – 5.1	mmol/L	3.8	ISE
Creatinine	1.12		0.70 – 1.30	mg/dL	1.08	Enzymatic
eGFR	72		> 60	mL/min/1.73m²	75	Calculated
Hemoglobin A1c	6.1	H	4.0 – 5.6	%	5.9	HPLC
Total cholesterol	214	H	< 200	mg/dL	208	Enzymatic
HDL cholesterol	58		> 40	mg/dL	55	Direct
LDL cholesterol, calculated	131	H	< 100	mg/dL	126	Calculated
Triglycerides	126		< 150	mg/dL	134	Enzymatic
TSH	6.8	H	0.45 – 4.50	µIU/mL	4.1	Immunoassay
Vitamin D, 25-OH	22	L	30 – 100	ng/mL	Not done	LC-MS/MS

WHAT EACH COLUMN TELLS YOU		FIVE THINGS THAT SURPRISE PEOPLE	
Test	The name of the analyte measured. The same analyte can appear under different names on reports from different laboratories.	1. Ranges differ between laboratories. Each laboratory establishes ranges for its own instruments, methods, and population. Do not compare your result to a range printed on a different laboratory's report. 2. Ranges differ by age and sex, and sometimes by pregnancy status or time of day. 3. A small change may be biological variation, not a real change. Every measurement has inherent variability. 4. Some values are calculated, not measured. eGFR and calculated LDL are derived from other values using a formula. 5. How you prepared affects the result. Fasting status, hydration, recent exercise, supplements, and the time of collection all matter.	
Result	The measured value for your specimen.		
Flag	L means below the reference range, H means above it. Some reports use LL and HH for critical values, and an asterisk for an abnormal result requiring immediate notification.		
Reference range	The interval within which most results from a healthy reference population fall. It is not a target, a goal, or a diagnosis threshold.		
Units	The measurement unit. A value is meaningless without its unit.		
Previous	Your own prior result, where available. The trend is often more informative than any single value.		
Method	The analytical technique used. Results produced by different methods are not always directly comparable.		

WHY YOU MAY SEE THE RESULT BEFORE YOUR CLINICIAN CALLS

Results are released to your portal as soon as they are finalized. This is intended to give you access to your own information without delay. It also means you may read a flagged value before anyone has interpreted it.

IF YOU SEE THIS	A REASONABLE NEXT STEP	NOT A REASONABLE NEXT STEP
A single mildly flagged value	Note it, and ask about it at your next contact with your clinician	Searching for the worst possible cause and acting on what you find
A value that changed from your previous result	Look at the size of the change and bring the trend to your clinician	Assuming any change means your condition worsened
A result marked critical	Expect a call from the clinic; if you have not heard within a few hours, call them	Waiting silently, or going to the emergency department without calling first
A result you do not understand at all	Send a portal message asking for an explanation	Changing a medicine or a diet on your own

GOOD QUESTIONS TO BRING TO YOUR CLINICIAN

- What was this test looking for, and did it answer that question?
- Is this result different from my previous one in a way that matters?
- Could any of my medicines, supplements, or how I prepared have affected this?
- Does this change anything about my treatment, or are we watching it?
- When should this be repeated, and who will make sure it happens?
- What would make you want to hear from me before that?

About the sample values: The values in the annotated table are invented to illustrate the layout of a report. They do not belong to any real person, they are not a real clinical case, and no conclusion should be drawn from them.

FICTIONAL SPECIMEN. ClearPath Diagnostics, the report layout, the analyte values, the reference ranges, and the methods shown here are invented for demonstration only. Reference ranges vary by laboratory and by patient. This document is not medical advice and must not be used to interpret any real laboratory result.