

Normal Laboratory Values, Abnormal Biological Function

ABSURD HEALTH INSTITUTE | 15 OCTOBER 2026 | I. Biology of disease states

Abstract

This concept paper examines normal laboratory values, abnormal biological function. It develops an argument drawn from Genes, Processes, and Constraints, identifies the relevant biological or clinical mechanisms, and considers where that argument may fail. This is a narrative perspective, not a systematic review or an original clinical study.

The central problem

Population reference ranges describe distributions, not guarantees of physiological completeness. A result inside a range can be compatible with substantial impairment, while an abnormal result may be transient or clinically irrelevant. The meaningful question is whether the measurement reflects the process of concern in that individual, at that time. Static values often undersample processes that oscillate, compensate or fail only under load.

Mechanisms and causal architecture

Fasting plasma glucose may be within range while postprandial excursions remain excessive; resting pulse can appear reassuring while exertional tolerance is poor; serum concentrations may be normal despite altered tissue distribution or a vulnerable feedback system. Conversely, reference limits are often valuable and sometimes definitive for urgent action. Dynamic assessments, paired markers, symptom timing and functional outcomes can add context, provided the additional measurements are validated for the clinical question.

A discriminating example

A single normal morning laboratory panel can coexist with marked symptoms after meals, during exertion or overnight. Sometimes the correct next step is a targeted dynamic test; sometimes the presentation calls for an entirely different differential diagnosis. A persuasive paper must discriminate these cases rather than imply that further testing is always indicated. Sensitivity, specificity and consequences of false positives remain part of the clinical argument.

Competing explanations and limitations

The danger of overstating this argument is turning normal findings into a license to invent hidden disease. More testing is not necessarily better, and unvalidated panels increase false positives. A mechanism should explain why a particular laboratory result misses a problem, what different test would detect it, and whether detecting it improves care. “My tests are normal but I feel unwell” warrants investigation; it does not prove an unspecified systemic defect.

What evidence would change the interpretation?

The proposal is testable by comparing predictive performance of single laboratory thresholds against longitudinal and dynamic measurements. Useful endpoints include functional capacity, diagnosis by accepted criteria, adverse events and response to established treatment. Improvements should be assessed out of sample, not solely in the cohort that generated the model.

Implications for medical interpretation

The article is an argument for thoughtful interpretation of evidence, especially when clinical presentation and a laboratory snapshot disagree. It is not an argument against using standard tests or respecting diagnostic thresholds.

Selected scientific reading

Barabási, Gulbahce & Loscalzo (2011), Network medicine: a network-based approach to human disease, Nature Reviews Genetics.

<https://doi.org/10.1038/nrg2918>

Scheer et al. (2009), Adverse metabolic and cardiovascular consequences of circadian misalignment, PNAS.

<https://doi.org/10.1073/pnas.0808180106>

Original source: Genes, Processes, and Constraints. All source books supplied by the author.

Conceptual research commentary. Not a peer-reviewed clinical study, original trial, systematic review, validated diagnostic instrument or treatment protocol. Consult qualified care for medical decisions.