

Detect Silent Threats Earlier

Heart Attack, Stroke,
and Leukemia



1 in 4

Heart Attack

patients have no known
risk factors¹



1 in 5

Stroke

patients have no known
risk factors²



1 in 3

Leukemia

cases are diagnosed in the
emergency room³

Now Detectable with

CardioHemeRISK™

References: [1] Paul, G. et al. Global Heart 2023; 18(1): doi: 10.5334/gh.1189. [2] Beharry, J. et al. Eur Stroke J 2025; doi: 10.1177/23969873241309516.
[3] Leukaemia Care. Leukaemia UK. Published September 4, 2022. Accessed May 2, 2025. <https://www.leukaemiauk.org.uk/news/worrying-numbers-of-leukaemia-patients/>.

CH Mutations

are Early Markers of Deadly Disease Risk⁴⁻⁸

Clonal hematopoiesis (CH) is an aging and lifestyle-related condition where a hematopoietic stem cell acquires a mutation that gives it a growth advantage and leads to an expanded population of blood cells with that mutation. Compared to the general population, individuals with CH mutations have a higher risk[#] of:



Heart Attack

12x⁴



Stroke

3.1x⁵



Leukemia

12.9x⁶

References: [#]Risk was derived from publications measuring hazard ratios (HR) of patients with CH mutations > 10% variant allele frequency (VAF). [4] Early onset myocardial infarction: HR = 12; 95% CI, 3.8–38; P < 0.001 (Jaiswal, S. et al. N Engl J Med 2017; 377(2): 111-121. PMID: 28636844). [5] Ischemic stroke: HR = 3.1; 95% CI, 1.2–8.4; P = 0.025 (Jaiswal, S. et al. N Engl J Med 2014; 371(26): 2488-2498. PMID: 25426837). [6] Hematologic cancer: HR = 12.9; 95% CI, 5.8–28.7; P < 0.001 (Genovese, G. et al. N Engl J Med 2014; 371: 2477-2487. PMID: 25426838). [7] Weeks, L. et al. NEJM Evid 2023; 2(5): 10.1056/evidoa2200310. [8] Pich, O. et al. N Engl J Med 2025; 392: 1594-1608.

CardioHemeRISK™

Your Window into Hidden Risk

CardioHemeRISK™ is a liquid biopsy-based NGS test that detects aging and lifestyle-related CH mutations in 11 genes using Lucence’s mirror barcoding technology.



1

Draw 2 x 9 ml Streck tubes of blood



2

Test for CH mutations



3

Generate a CardioHemeRISK™ score in 12 working days

Gene List

ASXL1	DNMT3A	FLT3	IDH2	JAK2	PPM1D
RUNX1	SF3B1	SRSF2	TET2	TP53	



CardioHemeRISK™

Results Intepretation

CardioHemeRISK™ scoring estimates the risk of heart attacks, strokes and leukemia based on the highest variant allele frequency (VAF) of a CH variant.

		Predicted Risk			Recommendation
CardioHemeRISK™ Score Highest Variant Allele Frequency	Clonal Hematopoiesis (CH) Category	 Heart Attack	 Stroke	 Leukemia	
0.0	CH-NEG				Repeat in 3 years [†]
> 0.0 to < 0.5	CH-VERY LOW			 ⁹	Repeat in 3 years [†]
0.5 to < 2.0	CH-LOW			 ¹⁰	Repeat in 3 years [†]
2.0 to < 10.0	CH-MID				Repeat annually
≥ 10.0	CH-HIGH	 ¹¹			Repeat annually

Risk categories are based on hazard ratios (HR) reported in studies of clonal hematopoiesis:  Average Risk, Mildly Elevated Risk: HR ≤ 1.5
 Moderately Elevated Risk: HR > 1.5 to 2.0  High Risk: HR > 2.0 [†] Regular evaluation of CH mutations at 1 to 3 year intervals can be considered by clinicians

References: [9] [10] [11] The predicted risks for heart attack or leukemia are adjusted if the *JAK2 V617F* variant is detected in your blood sample. [9] If the *JAK2 V617F* variant is detected with a VAF < 0.5%, the predicted risk is adjusted to mildly elevated risk for leukemia. [10] If the *JAK2 V617F* variant is detected with a VAF < 2.0%, the predicted risk is adjusted to moderately elevated risk for leukemia. [11] If the *JAK2 V617F* variant is detected with a VAF ≥ 2.0%, the predicted risk is adjusted to significantly elevated risk for heart attack.

Recommended for



Healthy individuals
aged above 40 and below 80



Cancer survivors previously treated
with chemotherapy or radiation



Individuals with a history of atherosclerotic
disease such as coronary artery disease (CAD)
or ischemic stroke



Healthy individuals aged above 40 with additional
risk factors for atherosclerotic disease such as
family history, hypertension, hyperlipidemia

Treatment



Weight management reduces
CH progression.¹²



There are no drugs currently approved for
preventive care for CH in healthy individuals.



Multiple anti-inflammatory and antithrombotic
therapies are under investigation.



Risk-based screening for the various diseases
and lifestyle modifications such as exercise,
nutrition and smoking cessation are a foundation
for individualized management.

Note: Testing is not recommended for patients who have received an allogenic bone marrow transplant or a recent blood transfusion (<2 weeks). Patients should refrain from heavy meals 4 hours before blood draw.

Reference: [12] Andersson-Assarsson, J. et al. EBioMedicine 2023; 92:104621.



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CardioHemeRISK™ is a screening test to evaluate risk of heart attack, stroke, and leukemia. This test is not intended for use as a diagnostic tool and should not replace the standard of care of a healthcare provider. It is intended for access and use by physicians in Singapore and Hong Kong only.

This brochure is not intended for the purpose of providing medical advice. All information, content, and material of this brochure are for informational purposes only and are not intended to serve as a substitute for the consultation, diagnosis, and/or medical treatment of a qualified physician or healthcare provider.

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