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The Preventive Heart

Understanding Your Hidden Risk

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Quick Summary

Heart disease begins decades before symptoms appear. Standard checkups often miss early warning signs, but advanced testing and proactive lifestyle changes can alter your trajectory. This guide explains the invisible timeline of heart disease, why traditional cholesterol tests are insufficient, the importance of genetic factors like Lp(a) and family history, and offers a practical prevention roadmap to help you take control of your heart health.

The Invisible Timeline of Heart Disease

Heart disease does not start suddenly with chest pain or a heart attack. Instead, it develops silently over decades. In your 20s and 30s, damage begins at the arterial lining due to poor diet, inactivity, smoking, insulin resistance, and inflammation. There are no symptoms and standard tests may appear normal.

By your 30s and 40s, early fatty deposits form in your arteries, starting the process of atherosclerosis. Lab results may show borderline cholesterol or blood sugar levels, but these are often dismissed. This period is the critical window for prevention.

In your 40s and 50s, plaques grow, arteries stiffen, and calcification begins. Blood pressure, cholesterol, and blood sugar often rise. Symptoms may still be absent, but advanced tests like coronary calcium scoring would reveal established disease.

Beyond 50, significant atherosclerosis increases the risk of heart attacks and strokes. Symptoms may appear, or the first sign may be a sudden cardiac event. Intervening early, ideally in your 30s or 40s, can prevent or slow this progression. Waiting until symptoms appear means managing damage rather than preventing it.



Key Point

Heart disease starts silently and decades before symptoms. Early detection and intervention are essential to prevent irreversible damage.

Why Standard Cholesterol Tests Are Not Enough

Routine cholesterol tests measure total cholesterol, LDL (“bad”) cholesterol, HDL (“good”) cholesterol, and triglycerides. While useful, these tests do not capture the full picture of cardiovascular risk.

Advanced lipid testing provides more detailed information:

Test	What It Measures	Why It Matters
ApoB	Number of atherogenic particles	More predictive of risk than LDL cholesterol alone
Lp(a)	A genetically determined cholesterol particle	Strong independent risk factor not lowered by lifestyle
LDL particle number and size	Quantity and type of LDL particles	Small, dense LDL particles are more harmful
hs-CRP	Marker of vascular inflammation	Indicates active arterial inflammation

Coronary calcium scoring is another powerful tool. It directly detects calcified plaque in coronary arteries, predicting risk better than traditional scores. It is quick and involves minimal radiation.

Unfortunately, these tests are underused in standard care, leading to missed opportunities for early detection.

Standard cholesterol tests provide incomplete risk assessment. Advanced testing reveals hidden disease and guides more effective prevention.

The Role of Lp(a) and Family History in Hidden Risk

Family history remains a cornerstone of cardiovascular risk assessment. A first-degree relative with early heart disease (before age 55 in men, 65 in women) approximately doubles your risk. However, family history alone cannot distinguish genetic from environmental factors.

Genetic testing can identify specific inherited conditions that greatly increase risk:

Condition	Inheritance	Typical LDL Levels	Prevalence	Risk Profile
Heterozygous Familial Hypercholesterolemia (FH)	One parent	Usually >4.9 mmol/L	1 in 250	Heart disease may begin in 30s-40s
Homozygous FH	Both parents	Often >10.3 mmol/L	Very rare	Heart disease can begin in childhood

FH causes lifelong high LDL cholesterol and dramatically increases risk if untreated. Early diagnosis and treatment can significantly reduce your risk.

Lipoprotein(a), or Lp(a), is a genetically inherited cholesterol particle present in about 20% of people at elevated levels. It is not lowered by diet, exercise, or weight loss. High Lp(a) increases risk of heart attack, stroke, and valve disease independently of other factors.

Testing for Lp(a) is recommended if you have early heart disease, a family history of premature events, FH, or unexplained atherosclerosis despite good control of traditional risk factors.

Why Genetic Testing Matters

Genetic testing identifies hidden risks like FH and elevated Lp(a) that standard tests miss. Knowing your genetic risk allows earlier and more aggressive prevention.

A Simple Prevention Roadmap

Preventing heart disease requires a proactive, personalised approach that goes beyond standard checkups.

1. **Comprehensive Risk Assessment:** Include family history, advanced lipid testing (ApoB, Lp(a)), inflammatory markers (hs-CRP), insulin resistance evaluation, and coronary calcium scoring when appropriate.
2. **Lifestyle Intervention:** Follow evidence-based dietary patterns such as the Mediterranean or DASH diet, focusing on whole foods, vegetables, healthy fats, and limited processed foods. Aim for at least 150 minutes of moderate aerobic exercise weekly plus resistance training 2-3 times per week. Prioritise quality sleep (7-8 hours) and manage stress through mindfulness, meditation, or counselling.
3. **Medical Therapy: When Indicated** Do not wait for numbers to become “high enough.” Discuss with your doctor whether early use of statins, blood pressure medications, or other agents may be necessary, especially with genetic risk factors or evidence of early disease.
4. **Regular Monitoring and Support:** Schedule follow-ups every 4-6 weeks initially, then regularly to assess progress, adherence, and adjust treatment. Engage with dietitians, exercise specialists, and support groups to sustain lifestyle changes.
5. **Family Screening:** If genetic risk factors are identified, encourage testing and prevention strategies for relatives.

Your Prevention Checklist

1. Discuss comprehensive risk assessment with your doctor
2. Request advanced lipid panel and consider coronary calcium scoring
3. Adopt a Mediterranean or DASH diet with professional support
4. Commit to regular aerobic and resistance exercise
5. Prioritise sleep hygiene and stress management
6. Follow prescribed medications as advised
7. Schedule regular follow-ups and monitoring
8. Inform family members if genetic risk is found

When to Seek Help

Heart disease prevention is a journey. Seek medical advice if you experience:

- Strong family history of early heart disease or sudden cardiac death
- Persistently elevated cholesterol (especially LDL >4.9 mmol/L)
- Early signs of metabolic syndrome: high blood pressure, central obesity, prediabetes
- Symptoms such as chest pain, breathlessness, or palpitations
- Concerns about genetic risk or desire for genetic testing
- In emergencies (chest pain, severe breathlessness, collapse), call 999 immediately.

Emergency Contacts

- UK Emergency: 999
- NHS Non-Emergency: 111
- Mental Health Support: Samaritans 116 123

Next Steps for Your Heart Health

1. Schedule a comprehensive cardiovascular risk assessment with your GP or cardiologist.
2. Discuss advanced testing options, including ApoB, Lp(a), and coronary calcium scoring.
3. Review your family history in detail.
4. Begin one manageable lifestyle change this week, such as a daily 15-minute walk or adding vegetables to meals.
5. Build systems to support your goals—plan meals, set exercise reminders, and seek support.
6. Arrange follow-up appointments to monitor progress and adjust your plan.
7. Consider genetic counselling if you have a strong family history or high-risk test results.

Prevention is a marathon, not a sprint. Small, consistent steps taken today can transform your heart health and your future.

Final Thoughts

Your heart's health is shaped by choices made long before symptoms appear. Standard checkups often miss early warning signs, but advanced testing and a proactive approach can change your trajectory. Genetics may load the gun, but lifestyle and medical care determine whether it fires.

You have the power to act early, to understand your hidden risks, and to take control. Prevention is not about perfection but progress. With knowledge, support, and commitment, you can protect your heart for decades to come.

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Sources and Further Reading

This guide is adapted from **Heart Saviour** by Dr Francesco Lo Monaco and checked against current UK patient information from HEART UK on lipoprotein(a) and the British Heart Foundation on familial hypercholesterolaemia.

Important Medical Disclaimer

This guide is for educational purposes only and does not constitute medical advice. It is not a substitute for professional medical diagnosis or treatment. Always consult your healthcare provider before making changes to your medications, lifestyle, or treatment plans. If you experience severe symptoms such as chest pain or shortness of breath, seek emergency medical attention immediately (call 999 in the UK).



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A Calm Place To Begin

If you would like to discuss a symptom, a family history or a preventive heart assessment, you are welcome to contact the clinic.

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Also consulting at
BMI Syon Clinic, Brentford
Clementine Churchill Hospital, Harrow



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more or make an enquiry.

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