

Your Heart

您的心脏

The Basics Everyone Should Know

每个人都应该知道的基础知识

Your heart beats roughly 100,000 times a day, without you ever having to think about it. It's a muscle about the size of your fist, and its job is simple to describe but relentless in practice: to pump blood continuously to every part of your body, from your brain to your fingertips, for as long as you live.

The heart is a four-chambered pump. Two chambers receive blood returning from the body and lungs; two chambers push blood back out. This rhythm — receive, pump, receive, pump — is what you feel as your pulse.

Blood vessels are the network of tubes that carry blood everywhere it needs to go. Arteries carry oxygen-rich blood away from the heart; veins carry blood back to it. Laid end to end, the blood vessels in an adult body would stretch tens of thousands of miles.

Circulation is the continuous loop that keeps this system running: blood travels from the heart, through the arteries, into smaller and smaller vessels, then back through the veins to the heart and lungs to pick up more oxygen — over and over, roughly once every minute.

Oxygen delivery is the actual point of all this plumbing. Every cell in your body needs a steady oxygen supply to function, and blood is the delivery vehicle. When circulation is compromised — by narrowed arteries, for example — the tissue downstream doesn't get what it needs. This is why cardiovascular problems can affect organs far from the heart itself.

您的心脏每天大约跳动10万次，而这一切却不需要您去思考。它是一块拳头大小的肌肉，其工作说起来很简单，但实际上从不间断：只要您还活着，它就会不断把血液输送到身体的每一个部位，从大脑一直到手指尖。

心脏是一个由四个腔室组成的“血液泵”。其中两个腔室负责接收来自身体和肺部的回流血液；另外两个腔室则负责将血液重新泵出。这个不断重复的节奏——接收、泵出、再接收、再泵出——就是您所感受到的脉搏。

血管就像一张遍布全身的管道网络，把血液送到身体需要的地方。动脉负责把富含氧气的血液从心脏输送出去；静脉则把血液带回心脏。如果把成年人体内所有血管首尾相连，它们的总长度可以达到数万英里。

血液循环就是让整个系统持续运转的循环过程：血液从心脏出发，通过动脉进入越来越细小的血管，然后再通过静脉回到心脏和肺部以获取更多氧气。这个过程如此周而复始，大约每分钟一次。

这一整套“管道系统”的真正目的，是把氧气送到身体各处。您体内每个细胞都需要稳定的氧气供应才能正常运作，而血液就是负责运送氧气的“运输工具”。 当血液循环受到影响——例如动脉变窄——下游的组织就无法获得足够的氧气和营养。这也是为什么心血管问题不仅会影响心脏，还可能影响身体其他远离心脏的器官。

The Numbers Worth Knowing

A handful of measurements give a useful window into how well this system is working:

值得关注的数值

通过几项关键指标，我们可以有效了解该系统的运行状况：



Blood pressure 血压

The force of blood pushing against artery walls as your heart pumps. Too high, and it puts sustained strain on your heart and blood vessels.

指心脏泵血时血液对动脉壁产生的压力。血压过高会对心脏和血管造成持续性负担。



Cholesterol 胆固醇

A fatty substance carried in your blood, essential in the right amounts, but capable of building up inside artery walls, narrowing the space blood needs to flow through.

血液中携带的一种脂肪物质。身体需要适量的胆固醇，但如果过多，它可能堆积在动脉血管壁内，使血管变窄，影响血液流动。



Blood glucose 血糖

The sugar circulating in your blood for energy. Consistently elevated levels, over time, can damage blood vessels and nerves.

血液中循环的糖分，为身体提供能量。但长期持续偏高的血糖水平会损害血管和神经。



Weight and waist circumference 体重和腰围

Not just about appearance; waist circumference in particular is closely linked to the kind of internal fat that affects blood pressure, cholesterol and blood glucose.

不仅关乎外表；尤其是腰围，它与体内脂肪密切相关，而这些脂肪可能影响血压、胆固醇和血糖。

None of these numbers tell the whole story on their own, but together they give a far clearer picture of cardiovascular health than how you feel on any given day.

这些数值单独来看，都无法全面反映情况。但把它们综合起来一起看， 可以更准确地了解自己的心血管健康状况。

The Risk Factors You Often Can't Feel

Here's what makes cardiovascular risk tricky: several of the biggest contributors produce few or no obvious symptoms, especially in the early stages. You can feel completely fine while one or more of these risk factors develop quietly or affect your health.

High blood pressure — often called a "silent" condition, because it rarely causes symptoms until it has already caused damage.

High cholesterol — has no symptoms at all; the only way to know your levels is to test them.

Diabetes and prediabetes — can develop gradually, with early signs that are easy to miss or attribute to something else.

Smoking — damages blood vessels with every cigarette, well before any symptoms appear.

Physical inactivity — doesn't cause immediate symptoms, but a sedentary lifestyle compounds nearly every other risk factor on this list over time.

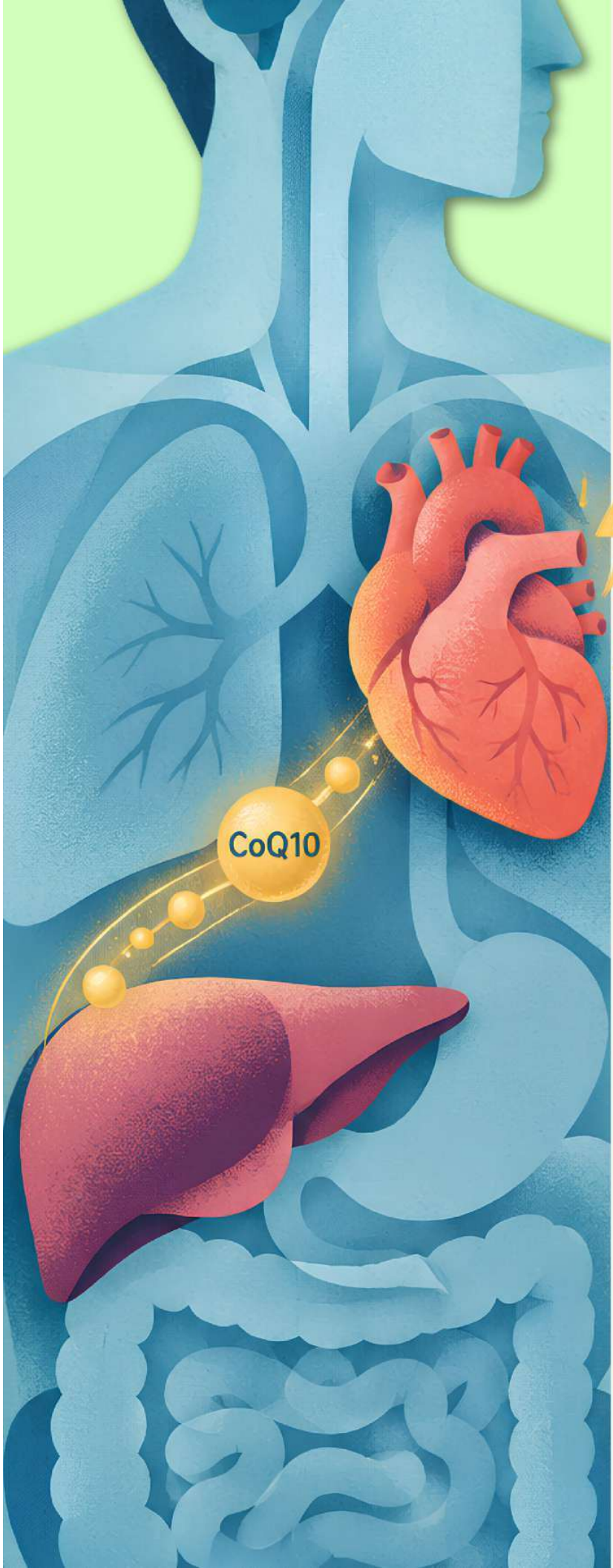
那些您往往察觉不到的风险因素

心血管风险之所以棘手，原因在于：其中几个主要风险因素在早期阶段往往几乎或根本没有明显症状。即使当一个或多个风险因素正在悄然发展或者已经开始影响您的健康时，您可能也感觉完全正常：

高血压 — 常被称为“无声”的疾病，因为通常不会产生明显症状，直到它已经造成了一定损伤。
高胆固醇 — 完全没有症状；想知道自己的胆固醇水平，唯一可靠的方法就是进行检查。
糖尿病和糖尿病前期 — 可能逐渐发展，其早期征兆很容易被忽视或者被认为是其他原因造成的。
吸烟 — 每抽一支烟都会损害血管，而这种损伤可能在任何症状出现之前就已经开始了。
缺乏运动 — 虽然不会立即引起症状，但久坐不动的生活方式会随着时间的推移加剧这份清单中几乎所有其他风险因素。

This is exactly why regular check-ups matter for your heart: by the time symptoms show up, some of these risk factors may have been present for years. Knowing your numbers, rather than waiting until you feel unwell, is one of the most useful things you can do for your long-term health.

这正是为什么定期检查对心脏健康非常重要。等到症状出现时，有些风险因素可能已经存在很多年了。与其等到身体不适才采取行动，了解自己的健康指标，是您能够为长期健康做的最有价值的事情之一。



A Nutrient Worth Knowing: CoQ10

Your heart is one of the most energy-hungry organs in your body, and much of that energy is produced with the help of a natural compound called Coenzyme Q10 (CoQ10). It plays a central role in how heart muscle cells generate the energy they need to keep beating, hour after hour.

Your liver naturally produces CoQ10, and levels are typically at their highest in your 20s. Production gradually tapers off as you get older. Research on CoQ10 levels in heart tissue suggests concentrations can be roughly 40-50% lower by your mid-60s, and may fall further with age. This natural, age-related decline is one reason CoQ10 supplementation becomes worth considering as you move into your 50s. In particular, **if you're taking a statin, that decline can happen faster still.**

Statins work by blocking a pathway involved in cholesterol production, and that pathway is also involved in the body's production of CoQ10. **The same medication that lowers your cholesterol can lower your CoQ10 levels along with it.** For this reason, for those taking a statin, CoQ10 supplementation is worth considering as part of a daily health routine. It is a simple, low-effort way to support your heart's energy production.

值得了解的营养素：辅酶Q10

心脏是人体内最耗能量的器官之一。而这种能量的产生，很大程度上离不开一种天然物质——辅酶Q10（CoQ10）。它在心肌细胞产生维持持续运转所需能量方面发挥着核心作用。

您的肝脏会自然产成辅酶Q10，其水平通常在20多岁时达到峰值。随着年龄增长，身体产生辅酶Q10的能力会逐渐下降。针对心肌组织中辅酶Q10水平的研究表明，到60多岁时，其浓度可能比年轻时低大约40%－50%，而且随着年龄继续增长，可能进一步下降。这种与年龄相关的自然下降，是您步入50岁后值得考虑补充辅酶Q10的原因之一。特别是**如果您正在服用他汀类药物，这种下降速度可能会更加明显**。

他汀类药物通过阻断参与胆固醇生成的一条代谢途径来降低胆固醇。而这条途径同时也参与人体制造辅酶Q10。换句话说，**降低胆固醇的药物，也可能同时降低体内的辅酶Q10水平**。因此，对于正在服用他汀类药物的人来说，可以考虑把辅酶Q10补充作为日常健康管理的一部分。它是一种相对简单、方便的方式，可以帮助支持心脏的能量产生。

And your heart doesn't operate in isolation any more than your sleep does. The two are more closely connected than most people realise, which is exactly where we're headed in our next article.

当然，心脏的运作与睡眠一样，绝非孤立存在的。心脏和睡眠之间的联系，比大多数人想象的更加紧密。这也正是我们下一篇文章要讨论的话题。