

《中年发福不是新陈代谢的锅！研究发现60岁后新陈代谢才开始变慢》

许多人都把中年发福归咎于新陈代谢变慢，然而新研究发现，中年人的新陈代谢速度和年轻人无异，60岁后新陈代谢才开始减速。也许，中年发福只是吃得太多，动得太少。



[Photo/Pexels]

Middle-aged spread cannot be blamed on a waning metabolism, according to an unprecedented analysis of the body's energy use.

一项史无前例的新陈代谢研究指出，不能将中年发福归咎于新陈代谢变慢。

The study, of 6,400 people, from eight days old up to age 95, in 29 countries, suggests the metabolism remains "rock solid" throughout mid-life.

这项涵盖了29个国家6400人的研究显示，人在中年时期的新陈代谢一直“稳如磐石”。研究对象中，最小的刚出生8天，最高龄的已经95岁。

It peaks at the age of one, is stable from 20 to 60 and then inexorably declines.

新陈代谢在1岁时达到顶峰，20岁到60岁期间保持稳定水平，60岁后开始不可阻挡地变慢。

The study, published in the journal Science, found four phases of metabolic life:

这项发表在《科学》期刊上的研究发现，人的一生中新陈代谢可分为四个阶段：

1. birth to age one, when the metabolism shifts from being the same as the mother's to a lifetime high 50% above that of adults

第一阶段：出生到1岁。新陈代谢速度最初和母亲一致，后来达到一生中的最高水平，比成人高出50%。

2. a gentle slowdown until the age of 20, with no spike during all the changes of puberty

第二阶段：1岁到20岁。新陈代谢逐渐变慢，整个青春期都没有明显波动。

3. no change at all between the ages of 20 and 60

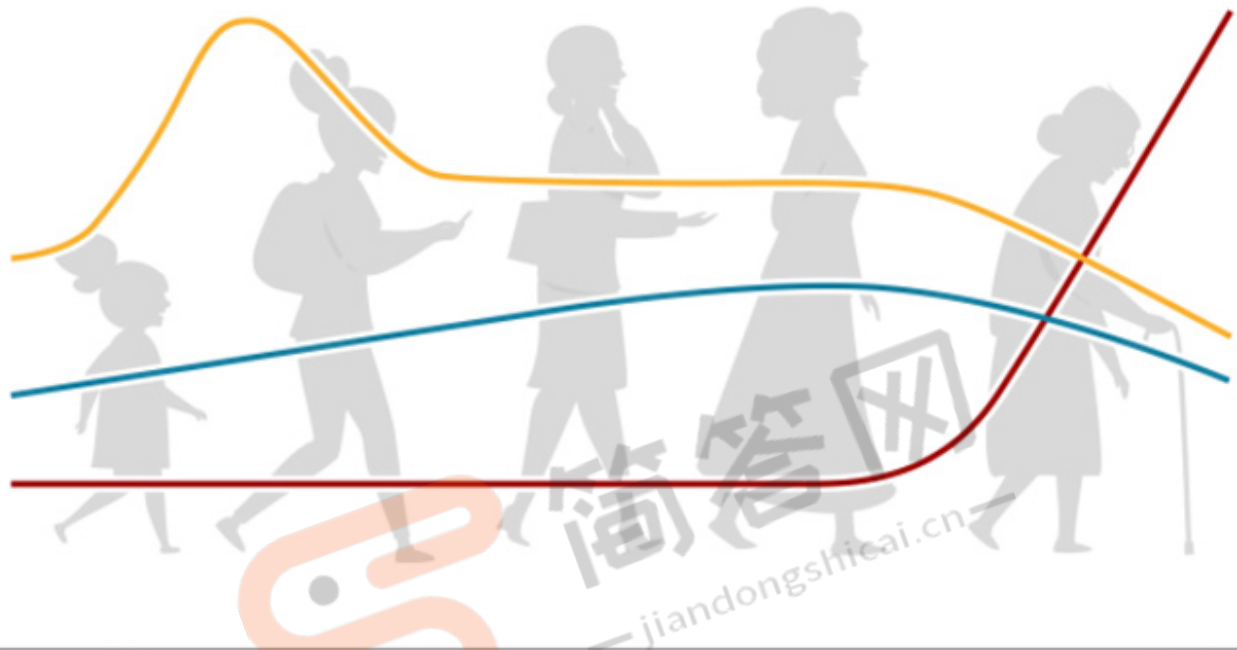
第三阶段：20岁到60岁。新陈代谢毫无变化。

4. a permanent decline, with yearly falls that, by 90, leave metabolism 26% lower than in mid-life

第四阶段：60岁后。新陈代谢速度逐年下降，90岁时新陈代谢速度比中年时期慢26%。

How our metabolism changes as we get older

- Energy expenditure
- Body fat levels
- Incidence of chronic disease



Source: Science

BBC

Screenshot from BBC

"It is a picture we've never really seen before and there is a lot of surprises in it," one of the researchers, Prof John Speakman, from the University of Aberdeen, said.

参与该研究的阿伯丁大学教授约翰·斯皮克曼称：“这是我们从未预料到的，发现了不少惊人的结果。”

"The most surprising thing for me is there is no change throughout adulthood - if you are experiencing mid-life spread you can no longer blame it on a declining metabolic rate."

“最让我惊讶的是，成年后新陈代谢一直没有变化。如果你正在经历中年发福，你也不能把这归咎于新陈代谢变慢。”

People's metabolism was measured using doubly labelled water.

研究人员用双标记水来测量人们的新陈代谢速度。

Made from heavier forms of the hydrogen and oxygen atoms that make up water, this can be tracked as it leaves the body.

重水分子中被标记的氢原子和氧原子可以在离开身体后被追踪到。

But doubly labelled water is incredibly expensive, so it took researchers working together across 29 countries to gather data on 6,400 people.

但是双标记水很昂贵，所以该研究通过29个国家科研人员的通力协作才收集到6400人的信息。

The researchers said fully understanding the shifting metabolism could have implications in medicine.

研究人员表示，充分了解新陈代谢的变化对于医药学可能有意义。

Prof Herman Pontzer from Duke University said it could help reveal whether cancers spread differently as the metabolism changes and if drug doses could be adjusted during different phases.

杜克大学的赫尔曼·庞策教授称，这将有助于揭示癌症的扩散速度是否会随着新陈代谢的变化而有所不同，以及不同年龄段的用药量是否应进行调整。



[Photo/Pexels]

And there is even discussion about whether drugs that modify the metabolism could slow diseases of old age.

还有人甚至在讨论调节新陈代谢的药物是否能推迟老年病的到来。

Drs Rozalyn Anderson and Timothy Rhoads, from the University of Wisconsin, said the "unprecedented" study had already led to "important new insights into human metabolism".

威斯康星大学的罗扎林·安德森博士和蒂莫西·罗兹博士称，这一“史无前例的”研究带来了“关于人类新陈代谢的重大启示”。

And it "cannot be a coincidence" diseases of old age kicked in as the metabolism fell.

此外，老年病在新陈代谢变慢时到来“绝非偶然”。

Prof Tom Sanders, from King's College London, said: "Interestingly, they found very little differences in total energy expenditure between early adult life and middle age - a time when most adults in developed countries put on weight.

伦敦国王学院的汤姆·桑德斯教授称：“有趣的是，研究人员发现，青年和中年时期的新陈代谢速度差异很小，而发达国家的大多数成年人都是在中年时期发胖的。”

"These findings would support the view that the obesity epidemic is fuelled by excess food energy intake and not a decline in energy expenditure."

“这些研究结果支持了一个观点，就是中年发福是因为食物摄取过量而不是新陈代谢变慢。”

英文来源：BBC