TED 瑜伽如何作用于身体和大脑

题目：What yoga does to your body and brain

At some point between the 1st and 5th century CE, the Hindu sage Patañjali began to codify the ancient, meditative traditions practiced throughout India. He recorded techniques nearly as old as Indian civilization itself in 196 manuals called the Yoga Sutras. These texts defined yoga as the 'yoking' or restraining of the mind from focusing on external objects in efforts to reach a state of pure consciousness. Over time, yoga came to incorporate physical elements from gymnastics and wrestling. Today, there are a multitude of approaches to modern yoga— though most still maintain the three core elements of Patañjali's practice: physical postures, breathing exercises, and spiritual contemplation.

在公元一世纪和五世纪间， 印度智者帕坦伽利 （Patañjali）开始整理编纂 在整个印度施行的 古老的冥想传统做法。 他在 196 颂的著作《瑜伽经》中 记录了几乎与印度文明 一样古老的技术。 这些经文将瑜伽定义为"控制"， 或是限制大脑对外部事物的关注， 以达到一种纯粹的意识状态。 随着时间的推移，瑜伽融入了源于 体操和摔跤的体育元素。 如今，现代瑜伽 有很多种不同的练习方式， 然而，大多数仍保留了帕坦伽利 所提出的的三个核心要素：身体姿势，呼吸练习， 和精神冥思。

This blend of physical and mental exercise is widely believed to have a unique set of health advantages. Such as improving strength and flexibility, boosting heart and lung function, and enhancing psychological well-being. But what have contemporary studies shown regarding the benefits of this ancient tradition?

很多人认为这种身心结合的练习 有着独特的健康效益。 比如提高机体的力量和柔韧性， 增强心肺功能，和改善心理健康。 但是对于这项古老的传统所带来的益处， 当代研究到底为我们展现了什么呢?

meditative traditions
冥想传统

Indian civilization
印度文明

restraining
adj.抑制的

gymnastics
n.体操；体育

spiritual contemplation
精神冥思

flexibility
n.灵活性

contemporary
当代

Despite attempts by many researchers, it's tough to make specific claims about yoga's advantages. Its unique combination of activities makes it difficult to determine which component is producing a specific health benefit.
尽管很多科学家都尝试过， 但仍然很难明确瑜伽的优点。 瑜伽将不同动作做了独特组合， 因此，判断哪方面 让健康获益变得颇有难度。

combination
n.合作；组合

determine
v.下决心

Additionally, yoga studies are often made up of small sample sizes that lack diversity, and the heavy reliance on self-reporting makes results subjective. However, there are some health benefits that have more robust scientific support than others.
此外，瑜伽方面的研究 通常由缺乏多样性的小样本组成， 以及过于依赖参与者主观感受 都使研究结果缺乏客观性。 然而，有些瑜伽对身体的好处 和其他可能带来的好处相比 有着更有力的科学依据作为支持。

diversity
n.多样化

Let’s start with flexibility and strength. Twisting your body into yoga’s physical postures stretches multiple muscle groups. In the short term, stretching can change the water content of these muscles, ligaments, and tendons to make them more elastic. Over time, regular stretching stimulates stem cells which then differentiate into new muscle tissue and other cells that generate elastic collagen. Frequent stretching also reduces the body’s natural reflex to constrict muscles, improving your pain tolerance for feats of flexibility.
让我们从柔韧性和力量说起。 将你的身体扭转成瑜伽的姿势 可以拉伸多个肌肉群 拉伸在短期内可以改变被拉伸的 肌肉，韧带，以及肌腱中的含水量， 让它们变得更有弹性。 一段时间后， 定期拉伸会刺激干细胞， 使其分化形成新的肌肉组织 和其他的会生成弹性胶原纤维的细胞。 频繁拉伸也会减少 人体肌肉收缩的自然反射， 从而提高你对疼痛的耐受力 并以此获得更好的柔韧性。

multiple muscle groups
多个肌肉群

differentiate into
分化形成

muscle tissue
肌肉组织

Researchers haven't found that any one form of yoga improves flexibility more than another, so the impact of specific postures is unclear. But like other low-impact exercises, yoga reliably improves fitness and flexibility in healthy populations.
研究人员还没有发现 有某种瑜伽形式 比其他的瑜伽形式 可以更好的提高身体的柔韧性， 因此具体瑜伽姿势 对柔韧性的影响还不明确。但是像其他低强度的运动一样， 瑜伽能以可靠的方式提高 健康人的身体素质和柔韧性。

healthy population
健康人群

The practice has also been shown to be a potentially powerful therapeutic tool. In studies involving patients with a variety of musculo-skeletal disorders, yoga was more helpful at reducing pain and improving mobility than other forms of low-impact exercise.
瑜伽练习也被证实 有可能成为强大的治疗工具， 在针对各种骨骼肌肉疾病患者的研究中， 与其他低强度运动相比， 瑜伽在减轻疼痛 和增强运动能力方面更胜一筹。

potentially
adv.潜在地

therapeutic tool
治疗工具

Adding yoga to an existing exercise routine can improve strength and flexibility for hard to treat conditions like chronic lower back pain, rheumatoid arthritis, and osteoporosis.
将瑜伽加入日常锻炼计划中 可以增强机体力量和柔韧性， 从而帮助人们应对 慢性腰痛，类风湿性关节炎， 以及骨质疏松等难以治愈的疾病。

chronic
adj.慢性的

rheumatoid arthritis
类风湿关节炎

osteoporosis
骨质疏松

Yoga's mix of physical exercise and regimented breathing has proven similarly therapeutic for lung health. Lung diseases like chronic bronchitis, emphysema, and asthma shrink the passageways that carry oxygen, while weakening the membrane that brings oxygen into the blood.
瑜伽中体育锻炼与 有规律呼吸的结合 被证实对肺部健康 也有同样的保健作用。 如慢性支气管炎， 肺气肿和哮喘等肺部疾病， 会使气道缩紧， 也让肺泡薄变得脆弱

chronic bronchitis
慢性支气管炎

emphysema
n.气肿

But breathing exercises like those found in yoga relax the muscles constricting those passageways and improve oxygen diffusion. Increasing the blood's oxygen content is especially helpful for those with weak heart muscles who have difficulty pumping enough oxygen throughout the body. And for those with healthy hearts, this practice can lower blood pressure and reduce risk factors for cardiovascular disease.
但是瑜伽中针对呼吸的锻炼，让本来使气道收缩的肌肉放松 从而提高氧气的透过率。增加血液中氧气的含量，对那些心肌薄弱难以为身体 泵入足够氧气的人们特别有帮助。对于那些拥有健康心脏的人们来说，这项练习可以降低血压，以及降低使心血管疾病发生的危险因素。

passageways
n.通道；走廊

cardiovascular disease
心血管疾病

Yoga's most widely celebrated benefit may be the most difficult to prove: its psychological effects. Despite the longstanding association between yoga and psychological wellbeing, there's little conclusive evidence on how the practice affects mental health. One of the biggest claims is that yoga improves symptoms of depression and anxiety disorders. Since diagnosis of these conditions varies widely as do their origin and severity, it's difficult to quantify yoga's impact.
瑜伽最广为人知的好处 可能是最难被证实的：是它对心理的影响。尽管瑜伽和心理健康方面 有着长期的联系 但是很少有确凿的证据 证明瑜伽练习是 如何影响心理健康的。其中最大的一种说法是 瑜伽可以改善由抑郁症和 焦虑症所引起的症状。由于这些病的诊断，起源，和严重程度都有着很大的差异，因此，瑜伽对其的影响 是很难被量化的。

psychological
adj.心理的

association
n.协会

diagnosis
n.诊断

However, there is evidence to suggest that yoga can help reduce the symptoms of stress, as well as meditation or relaxation.
然而，有证据表明 瑜伽可以帮助人们减轻压力，以及帮助人们冥想和放松。

Research on the effects of yoga is still evolving. In the future, we'll need larger studies, incorporating diverse participants, which can measure yoga's impact on heart attacks, cancer rates, cognitive function and more. But for now, yoga can continue its ancient traditional as a way to exercise,reflect, and relax.

对于瑜伽的研究仍在继续， 将来，我们需要更大规模的研究， 并纳入不同的参与者， 来衡量瑜伽对于 心脏病，癌症发病率， 以及认知功能等多方面的影响。 但目前，瑜伽可以继续其古老的传统， 作为一种供人们 锻炼、反思和放松的方式。

participant
n.参与者

cognitive function
认知功能