

## 体卫融合背景下太极拳防治重大慢性疾病的应用进展研究

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**摘要:** **研究目的:** 健康作为人类的基本权益, 一直以来都被视为家国大事。从《“十三五”规划》中的“体医融合”到 2021 年国务院发布的《全民健身计划(2021—2025 年)》中的“体卫融合”, 再到 2022 年《“十四五”国民健康规划》中明确指出要持续推动发展方式从以治病为中心转变为以人民健康为中心, 为群众提供全方位全周期健康服务, 这都反映了我国对国民健康的重视程度。20 年来, 我国国民体质监测结果显示, 整体上国民体质水平有所提高。然而, 也必须看到慢性病, 尤其是重大慢性疾病已成为威胁我国居民生命健康的主要因素。对此, 党的二十大报告首次提出要“加强重大慢性病健康管理”, 重大慢性病管理进入了前所未有的机遇期。在这一背景下, 太极拳作为东方体育文化的瑰宝, 将拳术、导引术和吐纳术结合起来, 融合了中西医理论。从中西来说, 它可以通经络、旺气血、调五脏、平衡阴阳等等; 从西医来说, 它可以促进血液循环、激活神经网络、调节自主神经兴奋性、改善心肺功能等等。本文旨在分析重大慢性病的发病特点, 总结太极拳运动对其防治的效果, 以期进一步深化“体卫融合”的理念, 为我国老年人重大慢性病的防治提供有益的参考和价值。**研究方法:** 本文采用文献资料法、逻辑分析法、对比分析法、案例分析法等方法对知网、维普等网站收集的文章进行梳理、总结。**结果:** 1. 太极拳运动可有效防治心脑血管疾病。我国心脑血管疾病患病率及死亡率正处在上升阶段, 作为我国老年人第一大死因给家庭及社会带来了巨大负担。高血压是引发心脑血管疾病的重要因素, 而太极拳锻炼可以改善高血压患者血管内皮细胞功能, 增强  $\text{Na}^+\text{-K}^+\text{-ATP}$  酶的活性, 增加 NO 合成与释放, 影响中枢神经系统, 降低平滑肌细胞对血管内皮收缩因子的反应性, 改善血管内外阻力, 提高血管顺应性, 有效降低血压, 保护血管功能; 平衡心脏迷走神经和交感神经平衡, 促进心血管神经自主调节, 提高心血管功能。运动耐力是心脑血管疾病的最强预测因子, 运动耐力下降是心脑血管疾病患者常见的体征之一。太极拳运动以半蹲位、圆弧形动作为主, 连续不断地移动重心, 有节奏地对骨骼、肌肉进行应力和刺激, 协调主动肌和拮抗肌配合能力, 促进神经元的募集, 提高肌力及肌耐力。另一方面, 太极拳运动可降低神经末梢释放去甲肾上腺素, 改善平滑肌的弹性、增强心肌收缩, 有效防治心脑血管疾病。2. 太极拳运动可有效预防及减缓慢性呼吸系统功能下降。慢性呼吸系统疾病以肺或气管病变为主, 包括但不限于慢性阻塞性肺病、间质性肺病、肺动脉高压、肺部纤维化、肺炎、支气管哮喘等疾病, 此类疾病的患病率高、致残率高、死亡

率高,呼吸康复作为最具成本效益的非药物治疗手段之一,是慢性呼吸系统疾病长期管理的核心,而运动训练作为呼吸康复重要的一环,对慢性呼吸系统疾病康复也起着关键作用。长期坚持太极拳锻炼,使四肢与躯干的反复收展,将意念、呼吸和运动合一,充分开合胸廓,刺激呼吸系统,有效提高呼吸肌肌力、增强运动耐力、增加肺活量、减少过度通气,使“肺能卫外”,提高免疫,预防及减缓呼吸系统功能下降。

3.太极拳运动可有效缓解癌症并发症与后遗症。近年来,随着癌症诊断与治疗技术的不断改进,癌症幸存者的数量逐渐增加。然而,很多患者在抗癌过程中都面临一些并发症与后遗症,如癌因性疲乏、睡眠障碍、抑郁和疼痛等,这些问题严重影响了患者的生活质量。在进行太极拳运动时,需要通过调心、调息、保持安静专注和放松自然的状态,促使机体产生内啡肽和儿茶酚胺等物质,有效改善不良的心理状态。同时,太极拳运动可以调节患者体内白细胞介素(interleukin, IL)-6 和 IL-8 等物质,从而缓解疲劳、改善焦虑和抑郁状态。此外,太极拳运动还能通过调节体内皮质醇的水平,有效缓解患者的疲劳状态。然而,传统太极拳招式复杂,活动强度大且记忆要求高,针对这类患者,可以设计一套简化且有针对性的太极拳招式,以缓解癌症并发症和后遗症,展现太极拳在临床疗效方面的价值。

4.太极拳运动可调节血糖,防治糖尿病。在我国,2型糖尿病患者率居高不下,患者以慢性高血糖为特征,一般是由于胰岛素抵抗或胰岛 $\beta$ 细胞胰岛素分泌缺陷,中医则认为“毒损肾络”是其关键病机。研究认为,NLRP3 炎症小体与糖尿病及胰岛素抵抗密切相关,而太极拳运动可以通过降低 NLRP3 炎症小体的表达,减少炎症因子释放来缓解胰岛素抵抗;此外,太极拳运动的低位屈伸收展运动使肌肉增大,促进糖的吸收调节糖代谢。

**结论:**太极拳作为传统功法之一,发挥了强身健体、防治疾病的重要功效,今后可对不同流派的太极拳进行拆解分析,从而针对不同类型疾病的患者设计特定的“简化太极拳”方案。这样的太极拳运动方案,有望为重大慢性疾病提供有效的康复手段,改善他们的身心状态,提高生活质量。然而,针对此类方案的设计与评估还需要进一步的科学研究和临床实践。在未来的工作中,我们应该继续深入研究太极拳的作用机制,制定更具体、有效的运动方案,以更好地满足患者的需求,提高他们的康复效果。同时,也需要注意适当结合医学和运动科学的知识,确保太极拳运动的安全性和有效性,为慢性疾病患者提供更可靠的健康服务。

**关键词:** 太极拳; 重大慢性病; 体卫融合

## **Research on the application progress of Tai Chi in the Prevention and treatment of major chronic diseases under the background of physical and health integration**

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**Abstract: Objective:** As the basic rights and interests of human beings, health has always been regarded as a national event. From the "integration of sports and medicine" in the 13th five-year Plan to the "integration of body and health" in the "National Fitness Program (2021, 2025)" issued by the State Council in 2021, and then in the National Health Plan of the 14th five-year Plan in 2022, it is clearly pointed out that it is necessary to continuously promote the transformation of the mode of development from treatment to people's health, so as to provide all-round and full-cycle health services for the masses. All these reflect the importance our country attaches to national health. Over the past 20 years, China's national physique monitoring results show that the overall level of national physique has been improved. However, it must also be noted that chronic diseases, especially major chronic diseases, have become the main factors threatening the life and health of Chinese residents. In this regard, the report of the 20th CPC National Congress proposed for the first time to "strengthen the health management of major chronic diseases", which has entered an unprecedented period of opportunity. In this context, Tai Chi, as a treasure of oriental sports culture, combines boxing, guidance and spitting, and integrates the theory of traditional Chinese and western medicine. In terms of Chinese and Western medicine, it can open channels and collaterals, invigorate qi and blood, regulate five internal organs, balance yin and yang, and so on; from western medicine, it can promote blood circulation, activate neural network, regulate autonomic nerve excitability, improve cardiopulmonary function and so on. The purpose of this paper is to analyze the characteristics of major chronic diseases and summarize the effect of Tai Chi on its prevention and treatment, in order to further deepen the concept of "integration of body and health" and provide useful reference and value for the prevention and treatment of major chronic diseases for the elderly in our country. **Research methods:** this paper uses the methods of literature, logical analysis, comparative analysis, case analysis and other methods to sort out and summarize the articles collected by CNKI, VIP and other websites. **Results:** 1. Tai Chi exercise

can effectively prevent and cure cardiovascular and cerebrovascular diseases .The prevalence rate and mortality rate of cardiovascular and cerebrovascular diseases in China are on the rise. As the first cause of death of the elderly in our country, Tai Chi has brought a huge burden to the family and society. Hypertension is an important factor causing cardiovascular and cerebrovascular diseases. Tai Chi exercise can improve the function of vascular endothelial cells, enhance the activity of Na<sup>+</sup>-K<sup>+</sup>-ATP enzyme, increase the synthesis and release of NO, affect the central nervous system, reduce the response of smooth muscle cells to vascular endothelial contractile factor, improve vascular internal and external resistance, increase vascular compliance, effectively reduce blood pressure and protect vascular function. Balance the cardiac vagus nerve and sympathetic nerve balance, promote cardiovascular autonomic regulation, improve cardiovascular function. Exercise endurance is the strongest predictor of cardiovascular disease, and exercise endurance decline is one of the common signs in patients with cardiovascular disease. Tai Chi exercises are mainly semi-squatting and arc movements, which continuously move the center of gravity, stress and stimulate bones and muscles rhythmically, coordinate the cooperation ability of active muscles and antagonistic muscles, promote the recruitment of neurons, and improve muscle strength and muscle endurance. On the other hand, Tai Chi exercise can reduce the release of norepinephrine from nerve endings, improve the elasticity of smooth muscle, enhance myocardial contraction, and effectively prevent and treat cardiovascular diseases. 2. Tai Chi exercise can effectively prevent and slow down the decline of chronic respiratory function. Mainly pulmonary or tracheal diseases, including but not limited to chronic obstructive pulmonary disease, interstitial pulmonary disease, pulmonary hypertension, pulmonary fibrosis, pneumonia, bronchial asthma and so on. Respiratory rehabilitation is one of the most cost-effective non-drug treatments. It is the core of long-term management of chronic respiratory diseases, and exercise training, as an important part of respiratory rehabilitation, also plays a key role in the rehabilitation of chronic respiratory diseases. Adhere to Tai Chi exercise for a long time, make the limbs and torso spread repeatedly, combine ideas, breathing and exercise, fully open and close the chest, stimulate the respiratory system, effectively improve respiratory muscle strength, enhance exercise endurance, increase vital capacity, reduce overventilation, make "lung energy outside", improve immunity, prevent and slow down the decline of respiratory system function. 3. Tai Chi exercise can effectively alleviate cancer complications and sequelae in recent years. With the continuous

improvement of cancer diagnosis and treatment technology, the number of cancer survivors is gradually increasing. However, many patients face some complications and sequelae in the process of anti-cancer, such as cancer-related fatigue, sleep disorders, depression and pain, which seriously affect the quality of life of patients. In Tai Chi exercise, it is necessary to adjust the heart, breath, keep quiet, focus and relax the natural state to promote the production of endorphins and catecholamines and other substances to effectively improve the bad psychological state. At the same time, Tai Chi exercise can regulate interleukin (IL)-6 and IL-8 and other substances in patients' bodies, thus relieving fatigue, improving anxiety and depression. In addition, Tai Chi exercise can effectively alleviate the fatigue state of patients by regulating the level of cortisol in the body. However, traditional Tai Chi has complex moves, high activity intensity and high memory requirements. For such patients, a set of simplified and targeted Tai Chi moves can be designed to alleviate cancer complications and sequelae. Show the value of Tai Chi in clinical efficacy.

4. Tai Chi exercise can regulate blood sugar and prevent and treat diabetes. In China, the prevalence rate of type 2 diabetes remains high. Patients are characterized by chronic hyperglycemia, which is generally due to insulin resistance or insulin secretion defect of islet  $\beta$ -cell. Traditional Chinese medicine believes that "toxic damage to kidney collaterals" is its key pathogenesis. Studies have shown that NLRP3 inflammatory bodies are closely related to diabetes and insulin resistance, and Tai Chi exercise can alleviate insulin resistance by reducing the expression of NLRP3 inflammatory bodies and reducing the release of inflammatory cytokines; in addition, the low flexion and extension exercise of Tai Chi can enlarge muscles, promote glucose absorption and regulate glucose metabolism.

**Conclusion:** As one of the traditional methods, Tai Chi plays an important role in strengthening the body and preventing diseases. Tai Chi of different schools can be disassembled and analyzed in the future. Thus, a specific "simplified Tai Chi" scheme is designed for patients with different types of diseases. Such Tai Chi exercise program is expected to provide effective rehabilitation means for major chronic diseases, improve their physical and mental state, and improve their quality of life. However, the design and evaluation of such schemes need further scientific research and clinical practice. In the future work, we should continue to study the mechanism of Tai Chi and formulate more specific and effective exercise programs to better meet the needs of patients and improve their rehabilitation effect. At the same time, we also need to pay attention to the appropriate combination of medical and sports science

knowledge to ensure the safety and effectiveness of Tai Chi exercise and provide more reliable health services for patients with chronic diseases.

**Key words:** Tai Chi, Major chronic diseases, Physical and Health Integration