

## Evidence summary: Chinese medicine for chronic obstructive pulmonary disease

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This summary of key findings from *Volume 1: Chronic obstructive pulmonary disease*<sup>1</sup> of the Evidence-based Clinical Chinese Medicine monograph series outlines:

- what chronic obstructive pulmonary disease (COPD) is
- current treatments
- findings from research into classical Chinese medicine literature and modern Chinese medicine clinical studies.

### What is COPD?

COPD is a chronic (long-term) inflammatory lung disease that obstructs airflow in the lungs. Its main symptoms are breathlessness (dyspnoea), wheezing, cough and sputum production.<sup>2</sup> People with COPD may find it difficult to breathe, which can limit their ability to exercise and daily activities.<sup>2</sup> COPD is mainly caused by exposure to irritating gases or particulate matter, such as cigarette smoke, and it gets worse over time.

### Current treatments

The main treatment goals for COPD are to reduce symptoms and prevent the disease from worsening.<sup>2</sup> People who smoke are encouraged to quit. Medicines (bronchodilators) may be prescribed to dilate the airways. Treatment may be adjusted during an acute flare-up (exacerbation) of symptoms.<sup>2</sup>

Chinese medicine treatment options include Chinese herbal medicine, acupuncture, moxibustion, point application therapy (where a herbal paste is applied to acupuncture points), cupping, *tai chi*, *qigong*, and dietary and lifestyle advice. Chinese medicine practitioners base their treatments on the patient's symptoms, relevant clinical textbooks and guidelines, research and clinical experience.

### Classical Chinese medicine literature

The *Encyclopedia of Traditional Chinese Medicine (Zhong Hua Yi Dian)* is a large and

important collection of Chinese medicine books. It includes 3,069 citations that describe treating dyspnoea and cough. More than 1,100 different Chinese herbal medicine formulas, involving 561 herbs, were mentioned. The encyclopedia also describes 122 acupuncture points for managing cough and dyspnoea.

### Modern Chinese medicine clinical studies

To write the *Chronic obstructive pulmonary disease*<sup>1</sup> monograph, nine biomedical databases (five English-language and four Chinese-language) were searched in May 2013. This search found 747 relevant studies of Chinese medicine for COPD. Most studies (530) were randomised controlled trials of Chinese herbal medicine. An additional search of the International Clinical Trials Registry Platform in September 2022 identified 14 new relevant registered randomised controlled trials of Chinese medicine.

### Chinese herbal medicine

One hundred and fifty randomised controlled trials focused on people with stable COPD, and 380 included people with COPD exacerbations.

For stable COPD, Chinese herbal medicine was more effective than placebo in improving lung function, quality of life, ability to exercise and overall symptoms. It was also better than no treatment in improving lung function, ability to exercise, breathlessness and overall symptoms, and more effective than conventional medicine in improving lung function and quality of life. Further, Chinese herbal medicine combined with conventional medicine was better than conventional medicine alone in improving lung function, quality of life, ability to exercise, breathlessness and overall symptoms, and reduced the number of COPD exacerbations.

For COPD exacerbations, Chinese herbal medicine's effects on lung function and overall symptoms were comparable to conventional medicine. However, Chinese

herbal medicine and conventional medicine combined improved lung function, quality of life, ability to exercise, breathlessness, overall symptoms and the amount of oxygen in the blood more than conventional medicine alone.

Five new registered randomised controlled trials in people with stable COPD found Chinese herbal medicine was comparable to placebo in improving lung function, quality of life, breathlessness, ability to exercise, and risk of exacerbation.

In two new studies of people with COPD exacerbations, Chinese herbal medicine combined with usual care was more effective than usual care alone in improving lung function in one study, but did not improve breathlessness in the other.

More adverse events were reported with Chinese herbal medicine than controls in trials on stable COPD or COPD exacerbations.

### **Acupuncture and related therapies**

Sixty-one randomised controlled trials evaluated acupuncture therapies, with varying results. Acupuncture point application therapy may improve quality of life more than conventional medicine in people with stable COPD, but there is limited evidence for other acupuncture therapies. Few adverse events were reported.

Three new relevant registered randomised controlled trials of acupuncture for stable COPD were identified. When combined with aerobics, electroacupuncture and sham electroacupuncture had similar effects on lung function and breathlessness. Transcutaneous electrical nerve stimulation (TENS) combined with usual care may improve lung function, but did not improve ability to exercise.

Results from one new randomised controlled trial in people with exacerbations of COPD could not be analysed, but no side effects were reported.

### **Other Chinese medicine therapies**

Twenty-five randomised controlled trials tested other Chinese medicine therapies, including *tai chi* and *qigong*. Qigong combined with conventional medicine improved lung function, quality of life and ability to exercise.

Three new registered randomised controlled trials investigated the effects of *tai chi*, but results from only one could be analysed. *Tai chi* combined with lung rehabilitation had comparable effects to lung rehabilitation alone on lung function, ability to exercise and quality of life. The number of adverse events in the control and intervention groups were similar.

### **Key messages**

- Chinese medicine treatments have been used throughout history to treat COPD symptoms.
- Treatment approaches have evolved over time.
- Chinese herbal medicine may improve lung function, breathlessness, ability to exercise, quality of life and overall symptoms.
- Point application therapy may improve quality of life.
- Clinicians and patients should discuss potential risks and benefits, so patients can make informed choices about care.

### **For more information**

Find out more about Chinese medicine for COPD in *Evidence-based Clinical Chinese Medicine Volume 1: Chronic obstructive pulmonary disease*<sup>1</sup> from <https://doi.org/10.1142/9787>

Find out more about Chinese medicine research at the China–Australia International Centre for Chinese Medicine at [www.rmit.edu.au/research/centres-collaborations/multi-partner-collaborations/cairccm](http://www.rmit.edu.au/research/centres-collaborations/multi-partner-collaborations/cairccm)

### **References**

1. Shergis J, Wu L. (2016) Volume 1: Chronic obstructive pulmonary disease. Xue CC, Lu C, editors. World Scientific Publishing Co. Pte. Ltd.; Singapore.
2. Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease (2024 report). 2024.

### **Disclaimer**

This evidence summary is not intended as a guide for self-medication or medical advice – patients should seek professional advice from qualified Chinese medicine practitioners.