

# Tuina<sup>®</sup>, more precise and effective physiotherapy treatments



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Canonical Robots



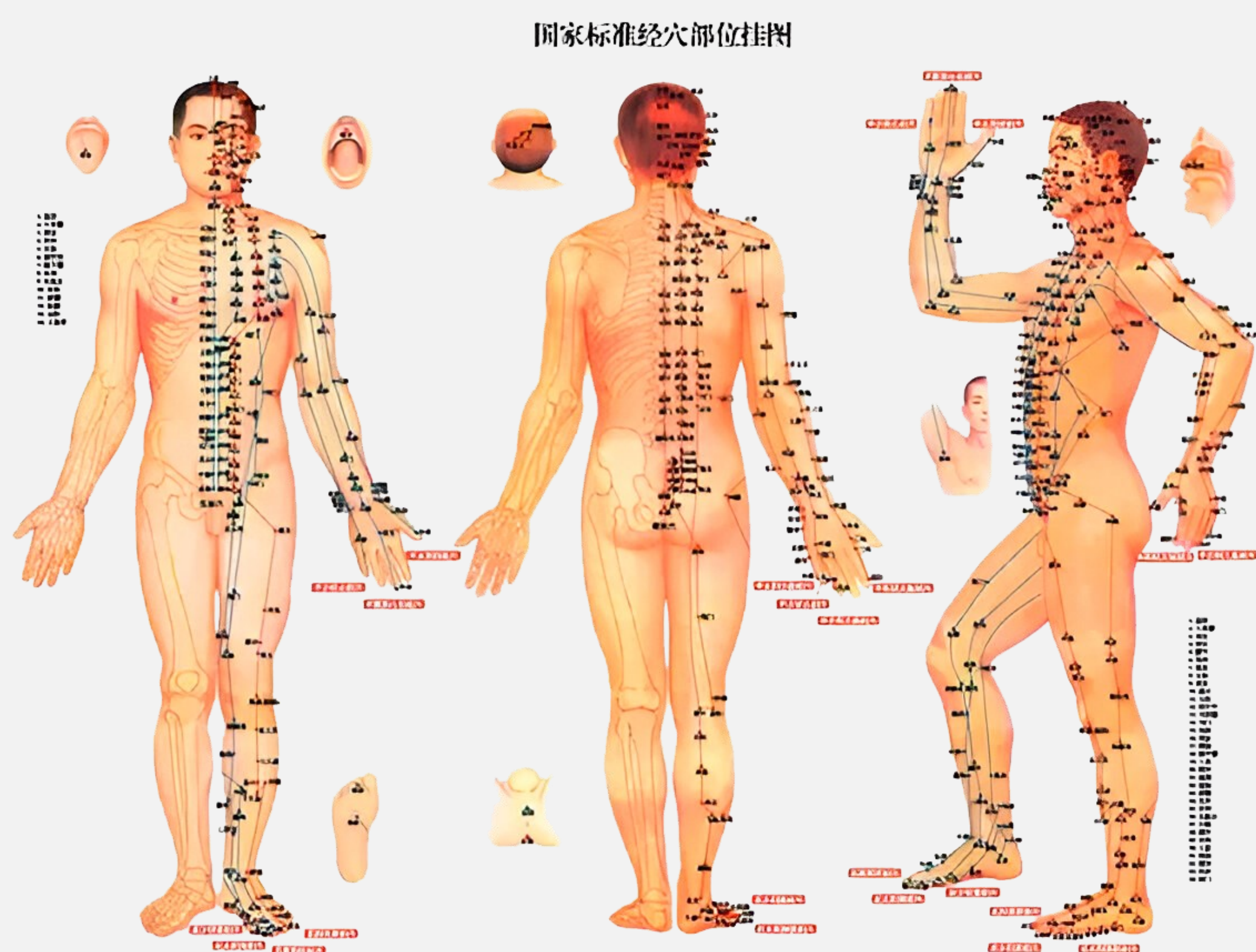
## ROBOT 2024

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## Traditional Chinese Medicine

TuiNa is an ancient branch of traditional Chinese medicine that uses pressure on specific points of the body to stimulate the body's natural healing ability. Based on this technique, we developed TuiNa<sup>®</sup>, a robotic platform designed to integrate physiotherapy into daily life.

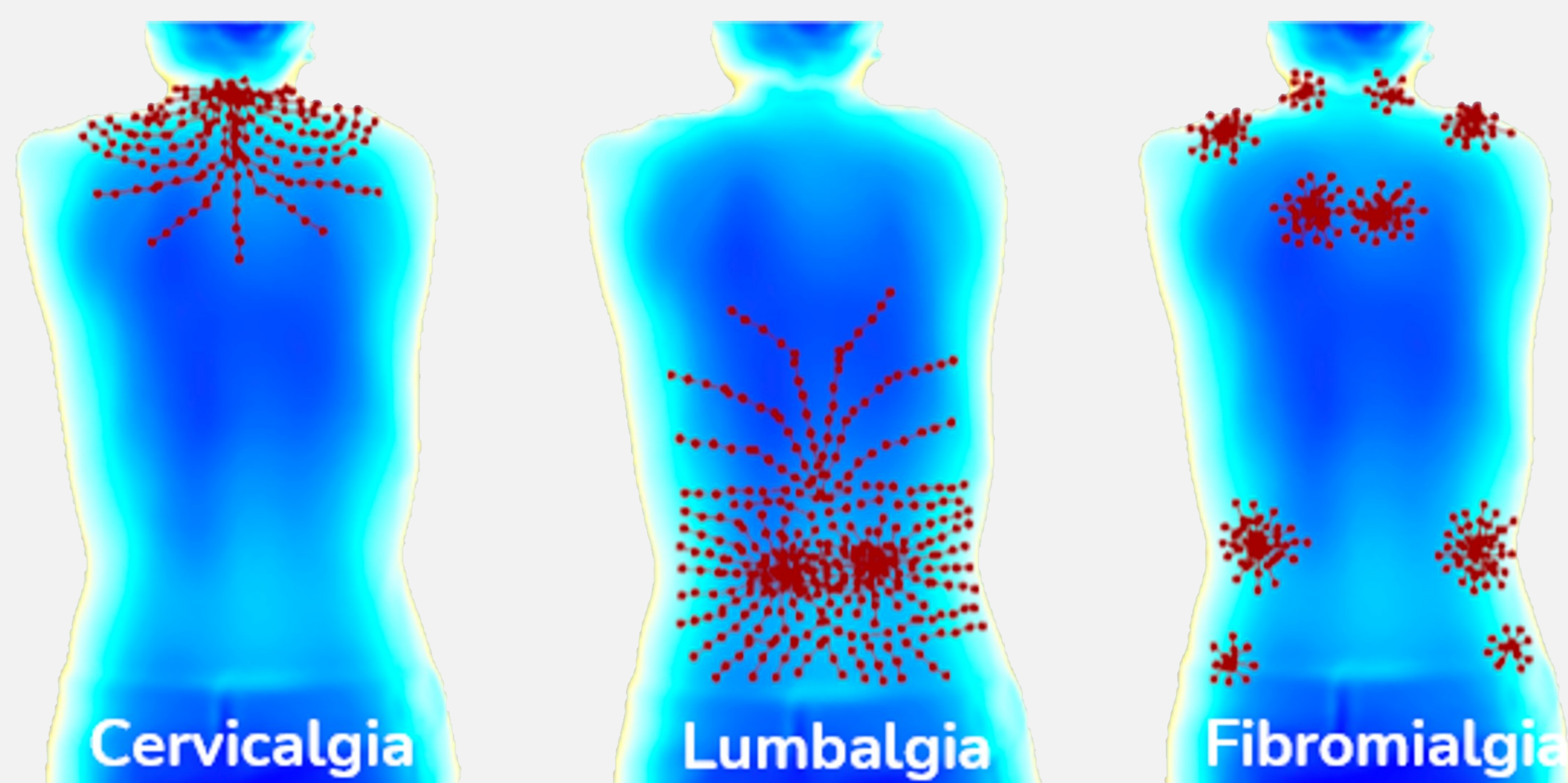
- TuiNa<sup>®</sup> applies pressurized air to specific points on the back, compressing and displacing tissue.
- The platform features an intuitive graphical interface that allows physiotherapists to select pressure points and design personalized treatments based on each patient's needs.



## Custom Treatments

TuiNa<sup>®</sup> offers various health benefits, including anti-inflammatory and analgesic effects, muscle relaxation, pain relief by eliminating substance P, and stimulation of the lymphatic system. It also improves joint mobility, promotes cell and tissue growth, reduces stress, and enhances sleep.

The TuiNa<sup>®</sup> treatment process starts with an initial consultation where the patient describes their symptoms to the therapist. The therapist then evaluates the condition and creates a personalized treatment plan. Patients can continue treatments independently as needed.



- It is effective for conditions like low back pain, cervical pain, fibromyalgia, muscle contractures, tendon issues, and vascular problems.
- TuiNa<sup>®</sup> is also suitable for general muscle relaxation and sports recovery, with adjustable intensity, making it ideal for treating acute pain where direct contact might be uncomfortable.

## Robotic Treatment

Our system combines massage therapy with cryotherapy. Air pressure massages the skin, while cold temperatures induce vasoconstriction, vasodilatation, and pain relief. This combination promotes tissue regeneration, waste removal, and overall relaxation.

- The TuiNa<sup>®</sup> robot is an Elfin model from Han's Robots, providing high precision with a repeatability of  $\pm 0.03$  mm.
- The treatment traceability is ensured by tracking the patient's progress and the therapies received.
- After the initial visit, patients can undergo treatment at any TuiNa<sup>®</sup> facility without clinical supervision.
- Safety is guaranteed as the collaborative robots are designed not to harm humans, ensuring a secure treatment environment.



## Enhancing precision and adaptability

Recent developments in the TuiNa<sup>®</sup> system focus on the integration of advanced sensory feedback mechanisms that add an extra layer of safety and precision.

These enhancements enable real-time adaptation of treatment trajectories, ensuring optimal control over the distance between the air jet and the body while maintaining the perpendicular orientation of the air stream.

While the current system is already highly accurate and effective, these improvements further refine its performance and open up new possibilities for treating more complex and curved areas of the body beyond the back.