

氣動治療產品原理

一、氣動康復訓練原理 / Principles of Pneumatic Rehabilitation Training

氣動式關節智能康復系統，是以空氣為動力，自動驅使手指手腕等關節被動訓練，可有效降低肌張力、改善血液迴圈、緩解關節水腫和增加關節活動度。

又能通過訓練和運動想像等反射腦部神經，促進腦部神經康復。是目前針對手指痙攣、麻痺、癱瘓等症狀有效的康復治療設備。

Pneumatic joint intelligent rehabilitation system, which is driven by air and automatically drives the passive training of joints such as fingers and wrists, can effectively reduce muscle tension, improve blood circulation, alleviate joint edema and increase joint mobility.

It can also reflect brain nerves through training and motor imagination to promote brain nerve rehabilitation. It is an effective rehabilitation treatment equipment for finger spasm, paralysis, paralysis and other symptoms.



二、康復功能實現 / Realization Of Rehabilitation Function

康復是一項漫長又複雜的過程,我們推出的氣動式康復訓練儀目的在於,作為補充手指恢復過程中的一個重要階段的康復訓練器具。

利用短促等長練習 TENS 法則的訓練模式讓患者體會手指肌肉被動訓練的過程,並進行初級主動訓練,更早的進入下一個階段訓練。

根據患者疾患情況,通過設定調節康復儀指套活動壓力,被動地驅使手指/手腕/腳踝活動,不但可使手指/手腕/腳踝痙攣、麻痺、癱瘓等症狀得到極大改善,而且還可以間接作用於腦部神經及血管,來促進腦部損傷或神經損傷術後的康復。

Rehabilitation is a long and complex process. Our pneumatic rehabilitation training instrument aims to supplement the rehabilitation training instrument at an important stage in the process of finger recovery.

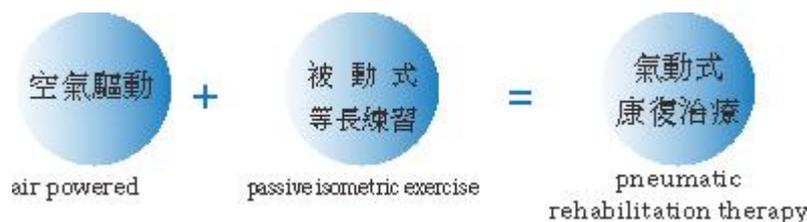
Using the training mode of short equal length exercise tens rule, let the patients experience the process of passive training of finger muscles, carry out primary active training, and enter the next stage of training earlier.

According to the patient's disease situation, by setting and adjusting the finger cuff activity pressure of the rehabilitation instrument and passively driving the finger / wrist / ankle activity, it can not only greatly

improve the symptoms of finger / wrist / ankle spasm, paralysis and paralysis, but also indirectly act on the brain nerve and blood pipe to promote the rehabilitation after brain injury or nerve injury.

三、產品特色 / Product Features

- 以空氣壓力作為動力，自動驅使手指/手腕被動訓練、操作簡單、安全。
 - 手指、手腕、腳腕等可作用於多個部位一機多用高性能。
 - 被動訓練、主從式鏡像訓練結合，以達到手指功能康復和腦功能重建雙重目的。
 - 伸展位持續時間可調，壓力可調，以適用不同肌張力患者。
 - 可以促進上肢和手的功能，強化患者的自信息，輔助心裏治療。
 - 設備設計精巧，可在床邊及任意空間適用。
 - 設備操作簡便，無需護理人員從旁協助節省醫護成本。
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- With air pressure as power, it automatically drives fingers / wrists for passive training, which is simple and safe.
 - Fingers, wrists, ankles, etc. can act on multiple parts, one machine with multi-purpose and high performance.
 - Passive training and master-slave mirror training are combined to achieve the dual purpose of finger function rehabilitation and brain function reconstruction.
 - The duration of the stretch position is adjustable, and the pressure is adjustable to suit patients with different muscle tensions.
 - It can promote the function of upper limbs and hands, strengthen the patient's self-information, and assist mental treatment.
 - The equipment is exquisitely designed and can be applied at the bedside and any space.
 - The equipment is easy to operate without the assistance of nursing staff, saving medical costs.



四、適用範圍 / Scope Of Application

- 腦卒中、腦癱、腦血栓、脊髓損傷等中樞神經系統損傷引起的肢體功能障礙。
 - 骨科手術、外傷等外周神經損傷引起的肢體功能障礙。
 - 肢體損傷後的膨脹、包括術前術後動靜脈血液迴圈不暢和淋巴回流不暢引起的腫脹的疼痛等。
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- Limb dysfunction caused by central nervous system injury such as stroke, cerebral palsy, cerebral thrombosis and spinal cord injury.
 - Limb dysfunction caused by peripheral nerve injury such as orthopedic surgery and trauma.

- Swelling after limb injury, including swelling and pain caused by poor arteriovenous blood circulation and poor lymphatic reflux before and after operation.

五、氣動康復治療產品 / Pneumatic Rehabilitation Products

5.1 康復治療器主機 Therapeutic Device Host

通過氣泵控制訓練終端進行康復訓練運動。

其原理為：主機氣泵將氣壓連接到訓練手套的氣囊內並控制氣泵打氣和抽氣工作來控制訓練終端的氣囊的擴張和收縮從而實現手指、手腕、腳腕的來回運動。

電源為寬電壓設計，相容 AC100-240V/50-60Hz，全球通用。顯示幕幕使用高清 LCD 屏，顯示內容更清晰自然。

操作介面簡單明白，更易學易操作，帶中/英文語言版本選擇，適用性更強。

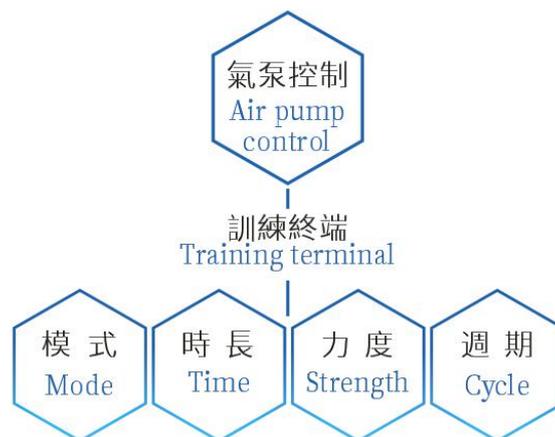


The rehabilitation training is carried out through the air pump control training terminal.

The principle is: the host air pump connects the air pressure to the air bag of the training glove, and controls the pumping and pumping of the air pump to control the expansion and contraction of the air bag of the training terminal, so as to realize the back and forth movement of fingers, wrists and ankles.

The power supply is designed for wide voltage, compatible with AC100-240V/50-60Hz, universally applicable. The display screen uses high-definition LCD screen, the display content is more clear and natural.

The operation interface is simple and clear, easier to learn and operate, with Chinese / English language version selection and stronger applicability.



5.2 訓練手套 Training Gloves

5.2.1 手指訓練 Finger training

以空氣壓力作為動力，通過主機控制自動驅使手指抓、握、伸展等被動訓練。

有效的抑制手指的痙攣，增加手指關節活動度，改善血



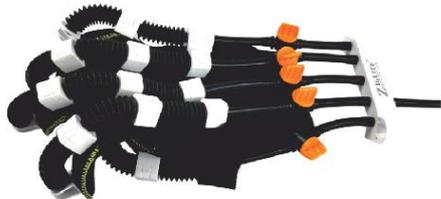
G-01 訓練手套：一根氣管控制整個手指運動

Training gloves: one trachea controls the movement of the whole finger

液迴圈，達到手指關節鬆動的效果。

With the air pressure as the power, the passive training such as finger grasping, grasping and stretching is automatically driven by the host control.

Effectively inhibit finger spasm, increase finger joint mobility, improve blood circulation, and achieve the effect of finger joint loosening,



G-02 氣閥訓練手套：氣閥單獨控制每根手指
Training gloves: each finger is individually controlled by an air valve switch



G-03 訓練手套：多根氣管控制整，分指控制指
Training gloves: multiple trachea control, Finger splitting control



G-05 鏡像手套，控制鏡像訓練
Mirror gloves, for mirror training

5.2.2 手腕訓練 Wrist training

以空氣壓力作為動力，通過主機控制自動驅使手腕手腕活動被動訓練。幫助手腕往上抬起，可幫助腕關節受阻的患者進行拉伸，緩解腕部筋膜的僵硬。

With the air pressure as the power, the wrist is automatically driven by the host control for passive training.

Helping the wrist lift up can help patients with wrist joint obstruction stretch and alleviate the stiffness of wrist fascia.



G-04 手腕康復訓練手套
Wrist rehabilitation training gloves

5.3 手&腳部氣壓按摩 Hand & foot air wave massage

以空氣壓力作為動力，控制手/腳套的氣囊充氣和抽氣狀態來控制手/腳套內的氣囊的擴張和收縮從

效降低肌張力、改善血液循環、緩解水腫。

Take the air pressure as the power to control the inflation and pumping state of the air bag in the hand / foot cover to control the expansion and contraction of the air bag in the hand / foot cover, so as to effectively reduce muscle tension, improve blood circulation and alleviate edema.



G-06 空氣波按摩手套
Air wave massage gloves



G-07 空氣波足底按摩腳套套
Air wave massage foot cover

空氣波壓力治療原理

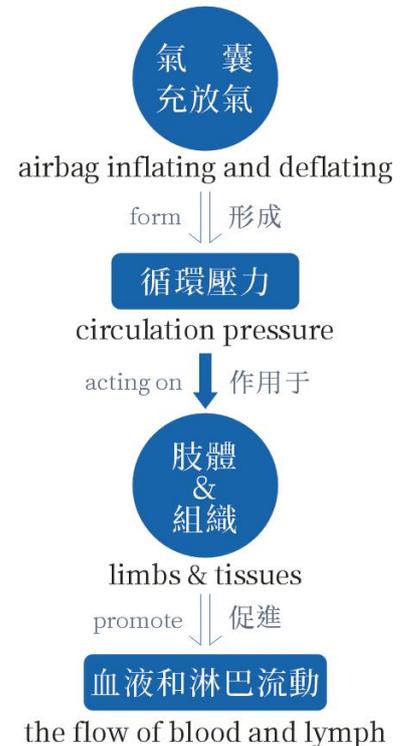
一、空氣波壓力治療原理 / Principle Of Air Wave Pressure Therapy

空氣波壓力治療儀又稱循環壓力治療儀、梯度壓力治療儀、四肢循環儀或壓力抗栓泵，物理療法。

空氣波壓力治療儀主要通過對多腔氣囊有順序的反復充放氣，形成了對肢體和組織的循環壓力，對肢體的遠端到肢體的近端進行均勻有序的擠壓，促進血液和淋巴的流動及改善微循環的作用。加速肢體組織液回流，有助於預防血栓的形成、預防肢體水腫，能夠直接或間接治療與血液淋巴循環相關的諸多疾病。

Air wave pressure therapeutic instrument, also known as loop pressure therapeutic instrument, gradient pressure therapeutic instrument, limb loop instrument or pressure antithrombotic pump, physical therapy.

The air wave pressure therapeutic instrument mainly forms the loop pressure on the limbs and tissues by sequentially and repeatedly inflating and deflating the multi cavity air bag, evenly and orderly extruding the distal end of the limbs to the proximal end of the limbs, promoting the flow of blood and lymph and improving microcirculation, accelerating the reflux of limb tissue fluid, which is helpful to prevent thrombosis and limb edema, It can directly or indirectly treat many diseases related to hemolymph.



二、康復功能實現 / Realization Of Rehabilitation Function

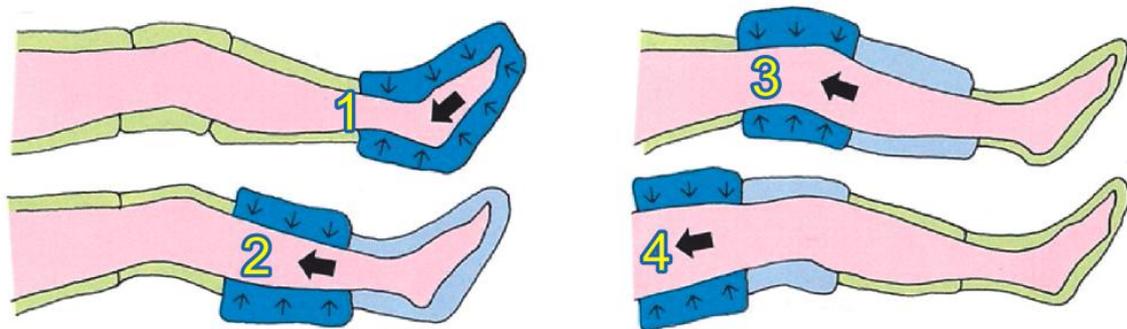
通過被動均勻的按摩作用，隨著血液循環的加速。可以加速血液中代謝廢棄物，炎症因數、致痛因數的吸收。可以防止肌肉萎縮，防止肌肉纖維化，加強肢體的含氧量，有助於解決因血液循環障礙引起的疾病（如骨股頭壞死等）。

Through passive and uniform massage, with the acceleration of blood circulation. It can accelerate the absorption of metabolic wastes, inflammatory factors and pain causing factors in the blood. It can prevent muscle atrophy, prevent muscle fibrosis, strengthen the oxygen content of limbs, and help to solve the diseases caused by blood circulation disorders (such as ring death of femoral head, etc.).

三、產品特色 / Product Features

- 以空氣壓力作為動力，治療設備操作越來越簡單，醫用家用皆可以。

- 安全、绿色、无创伤，符合现代医学发展方向。
 - 治疗舒适。
 - 对某些疾病具有多重功效。
 - 簡便，無需護理人員從旁協助節省醫護成本。
- With air pressure as power, the operation of treatment equipment is becoming simpler and simpler, which can be used for medical and household purposes.
 - Safe, green and non-invasive, in line with the development direction of modern medicine.
 - Treatment comfort.
 - It has multiple effects on some diseases.
 - Simple and convenient, without the assistance of nursing staff, saving medical costs.



四、適用範圍 / Scope Of Application

- 上，下肢體水腫 **Edema of upper and lower limbs:**

上，下肢體的原發性和繼發性淋巴水腫，慢性靜脈源性水腫，脂性水腫，混合性水腫等。

治療原理是促進血液循環，淋巴循環，將一些引起疼痛，不舒服的代謝產物和炎性致痛物質都擠到主循環裏清除掉，從而消除水腫。

Primary and secondary lymphedema, chronic venous edema, fatty edema, mixed edema, etc. of upper and lower limbs.

Promote the metabolism of inflammatory pain causing substances in the main circulation, so as to eliminate edema.

- 偏癱，截癱及癱瘓的病人 **Patients with hemiplegia, paraplegia and paralysis:**

偏癱、截癱、癱瘓、長期臥床的患者，因血流緩慢，肌肉無收縮力。應用空氣波壓力治療儀，反復對肢體進行加壓後再卸壓，從而產生如同肌肉的收縮和舒張作用，促進靜脈血液和淋巴液循環，並取得充分按摩效果。預防深靜脈血栓和防治下肢肌肉萎縮。

The air wave pressure therapeutic instrument is used to repeatedly pressurize the limbs and then relieve the pressure, so as to produce the contraction and relaxation of muscles, prevent deep vein thrombosis and lower limb muscle atrophy.

- **糖尿病足，糖尿病末梢神經炎 Diabetic foot, diabetic peripheral neuritis:**

增加了神經血流灌注和氧合作用，並且提高神經的氧耗量從而達到改善功能的目的，減輕肢體麻木症狀。

It increases the nerve blood perfusion and oxygen cooperation, and increases the oxygen consumption of the nerve, so as to improve the function and reduce the symptoms of limb numbness.

- **肢體血液循環不好，靜脈功能不全，中老年人 Poor limb blood circulation, venous insufficiency, middle-aged and elderly people:**

促進血液循環，解除肌肉疲勞，緩解疼痛，麻痺不適肢體的康復。

空氣波壓力治療儀運用間歇壓力，通過空氣波的反復膨脹和收縮作用，可以達到改善血液循環，擴展活化血管的效果。有助於抗血栓形成和改善循環，清除血液中代謝廢棄物，加強肢體氧合度。

Promote blood circulation, relieve muscle fatigue, relieve pain, and recover paralyzed and uncomfortable limbs.

It helps to prevent thrombosis and improve circulation, remove metabolic waste from blood and strengthen limb oxygenation.

五、空氣波壓力治療產品 / Air wave pressure therapy Products

5.1 康復治療器主機 Therapeutic Device Host

主機氣泵將氣壓連接到肢體氣囊內，控制氣泵的加壓和泄壓工作狀態來控制多腔氣囊有順序的反復充放氣，形成了對肢體和組織的循環壓力，促進血液和淋巴的流動，改善微循環。

The air pump of the host connects the air pressure to the limb airbag, controls the pressurization and pressure relief working state of the air pump to expand and contract the airbag of the upper limb sleeve, forms the circulating pressure on the limbs and tissues, promotes the flow of blood and lymph and improves microcirculation.



5.2 氣囊按摩終端 Airbag Massage Terminal

5.2.1 上肢按摩 Upper limb massage

應用空氣波壓力治療儀，反復對肢體進行加壓後再卸壓，促進促進血液循環，淋巴循環，緩解手臂肌肉疲勞，減少手臂僵硬等問題。

Apply air wave pressure therapeutic instrument to repeatedly pressurize the limbs and then relieve the pressure, promote blood circulation and lymphatic circulation, alleviate arm muscle fatigue and reduce arm stiffness.



▲ M-62
六腔氣動手臂按摩套
Pneumatic arm massage coat
- six chamber



▲ M-41
四腔氣動手臂按摩套
Pneumatic arm massage coat - four chambers

5.2.2 腰部按摩 Wrist massage

應用空氣波壓力治療儀，反復對腰部進行加壓後再卸壓，促進促進血液循環，淋巴循環，緩解腰部疲勞酸楚疼痛等問題。

he air wave pressure therapy device is used to repeatedly pressurize the waist and then relieve the pressure to promote blood circulation, lymphatic circulation, and relieve waist fatigue and pain.



▲ M-65
六腔氣動腰部按摩套
Pneumatic waist massage cover - six chambers



◀ M-45
四腔氣動腰部按摩套
Pneumatic waist massage cover
- four chambers



5.2.3 下肢按摩 Lower limb massage

應用空氣波壓力治療儀，反復對下肢進行加壓後再卸壓，促進促進血液循環，淋巴循環，改善腿麻、脹、腫、疼等問題，輔助術後恢復，預防靜脈曲張、血栓等問題。

Apply air wave pressure therapeutic instrument to repeatedly pressurize the limbs and then relieve the pressure, promote blood circulation and lymphatic circulation, improve leg numbness, swelling, swelling and pain, assist postoperative recovery, and prevent varicose veins, thrombosis and other problems.



◀ M-64
六腔氣動下肢按摩套
Pneumatic lower limb
massage cover
- six chambers



◀ M-43
四腔氣動下肢按摩套
Pneumatic lower limb
massage cover
- four chambers



▲ MAS
空氣波壓力腿部按摩儀
Air wave pressure leg massage instrument

空氣波壓力腿部按摩儀
Air wave pressure leg massage instrument



▼ MAR