Posture analysis

FROM CHINESPORT'S GENERAL CATALOGUE – 2015 EDITION

CHINESPORT® ITALIA

REHABILITATION and MEDICAL EQUIPMENT

CE

The **Chinesport** thanks all collaborators who have given their contribution to achieve the present document.

CHINESPORT Cultura Libreria & Videoteca

The equipment illustrated in the present chapter can be subject of specific training and multilevel courses arranged by qualified professionals. So upon request it's possible to arrange events at Chinesport's head office or other site indicated by the customer.

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Posture analysis

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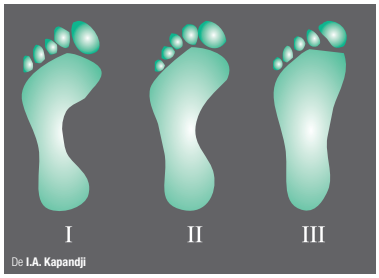
Podoscopes

02991 PODOLUX

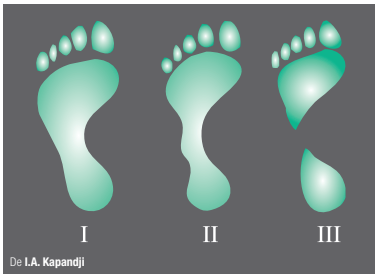
This is a podoscope that is used to analyse the plantar loading, and allows to obtain a real view of the sole and to highlight the points of greatest and least load. It has a top lit by energy efficient LED lights that are high power and long-life. The height of the device off the floor promotes easy access for the aged or people with limited motor capacity. The ample support base for the feet also favours comfortable, free positioning. The device is light weight and can be moved easily. It comes with a transparent, removable protective film. Safe working load: 170 kg Dimensions: (cm) 53,5 x 40 x 17 h; Weight: 9 kg

02992 PODOCOLOR

This podoscope comes with a control that is used to adjust the intensity and colour of the light source, in order to achieve better viewing of the imprint, according to the user's needs. It allows to obtain a real view of the soles of the feet and to highlight points of greatest and least loads thanks to an energy efficient LED light source that is high power and long-life. The height of the device off the floor promotes easy access for the aged or people with limited motor capacity. The ample support base for the feet also favours comfortable, free positioning. The device is light weight and can be moved easily. It comes with a transparent, removable protective film. Safe working load: 170 kg; Dimensions: (cm) 53,5 x 40 x 17 h; Weight: 9 kg



I = normal arch; II and III = flat foot



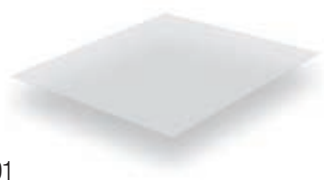
I = normal arch; II and III = cavus foot

The video provides an overview of the possible postural analyses, using various devices as well as acquiring and comparing images at different times. As part of this type of examination, the podoscope is still an essential observation tool since the first stages of the developmental age.

ACCESSORY

AC0584 PROTECTIVE FILM

This is a protective accessory for the podoscope. It is made of transparent plastic and is easy to remove. It is ideal for applying to articles PODOLUX - code 02991 and PODOCOLOR - code 02992. Size: 50 x 36 cm (single item)



Photographic analysis *of the feet*

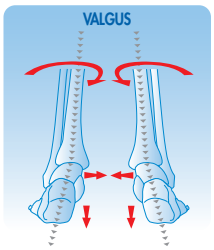
Made in Italy

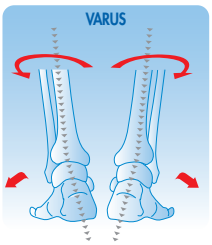
02990 LUX PODOSCOPE

It is a typical device for analysing the foot type (normal / cavus / flat) of the subject being examined. It consists of a lacquered wood frame, a crystal surface and a mirror below. Double side lighting provides a visual image of foot pressure and a representation of load distribution points. “Podostabil 2” - code 01767 can be ordered as an accessory to help patient feel safe while standing on the platform. Safe working load: 135 kg; Dimensions: cm 46 x 55 x h 33; Weight: 15 kg

01421 FOOT ANALYZER

The foot analyzer consists of a bilaminate platform with two webcams and a CD with GPS 5.0 software for acquisition and handling of images for foot pressure and heels. It can be combined only with Lux Podoscope code 02990. The computer is not included, but it can be ordered as an accessory code 01799 with webcams configuration in advance and GPS 5.0 software pre-installed.Dimensions: cm 30 x 33 x h 45; Weight: 6 kg





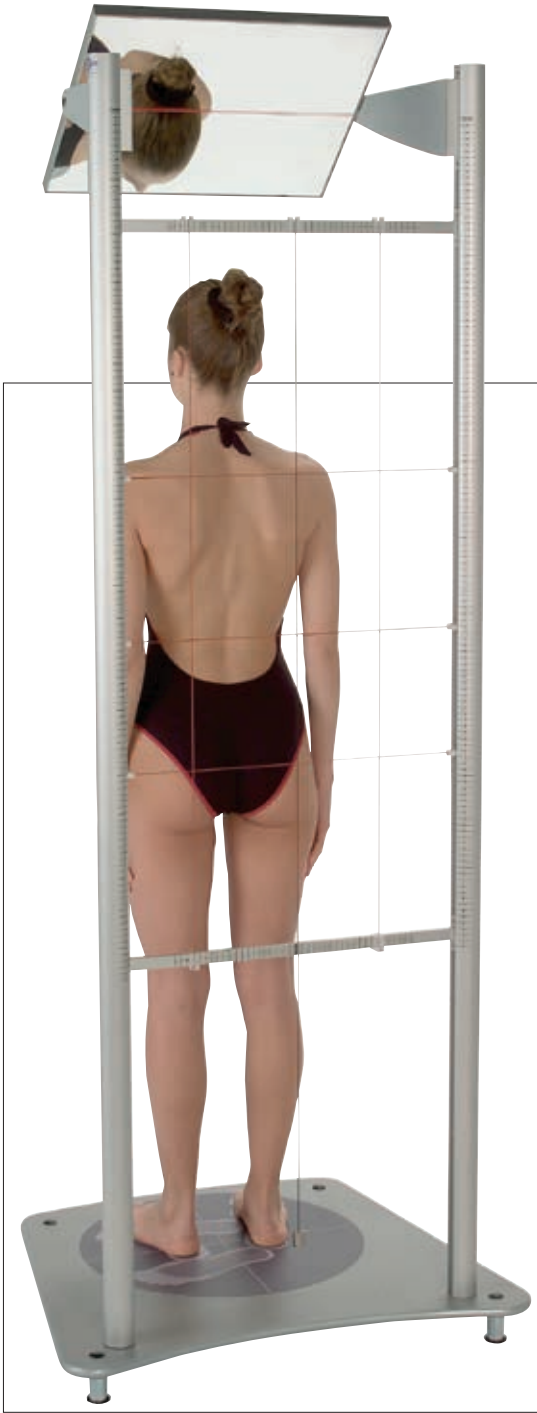
01799 COMPUTER

Computer is provided with 21.5” touch screen display and Windows 8.1 operating system in English version. The end user can change easily the language version. The GPS 5.0 software is pre-installed with configuration of the webcams that are included in the hardware. In this case the whole purchased postural analysis system is tested in production before shipment. We recommend not to install other software on the computer.

01767 PODOSTABIL 2

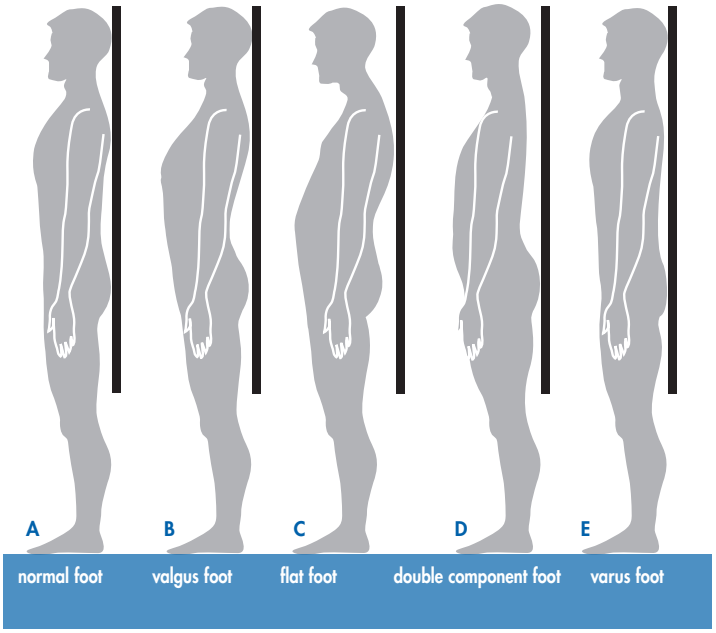
This item provides greater safety to the individual when he stands on a podoscope or a stabilometric footboard. It consists of a bilaminate base, aluminum side bars and wooden handrail. The device can be ordered separately or be part of a postural work station (see following pages). Working safety load: 135 kg; Dimensions: cm 71 x 128 x h 126; Weight: 28 kg

Lux Postural analyser

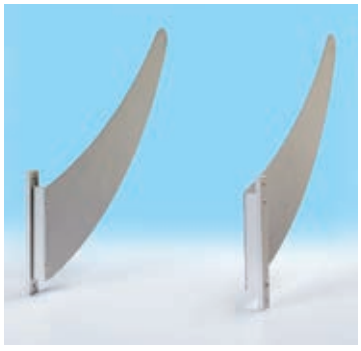


01085 LUX POSTURAL ANALYZER

It is a device typically used for analysing posture in the frontal, posterior and lateral planes. The person must stand with their feet in the positions indicated on the platform. The device consists of a bilaminate platform, two aluminum side bars, measuring indicators and sliders with strings for postural reference (Barré's vertical evaluation), and an adjustable mirror on top. The image reflected in this upper mirror makes it possible to observe whether there is any rotation of the shoulders, and to what extent. The device can be ordered separately or be part of a postural work station (see following pages). Bars can be extended for accommodating people taller than 190cm by applying the accessory "clamps" code 01777. Working safety load: 135 kg; Dimensions 80 x 72 x 225 h cm; Weight: 19 kg



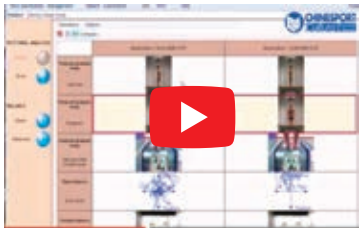
"The Barrè vertical exam is also to be carried out by analyzing the sagittal plane. In this case, the plumbline is placed on the cluneal-thoracic and occipital prominences and on the practical side, is the best system for analyzing the sagittal plane. In order to make a clinical-pratical evaluation, we use these landmarks and can have: a situation in which these points are aligned (cases A and B) with accentuation of the curves; case C in which the most prominent point of the thoracic kyphosis is behind the centre of gravity with respect to the cluneal prominence, or case D in which the thoracic column is ahead of the centre of gravity with respect to the cluneal prominence. Case E are aligned points but a rectification of the curves exists."



ACCESSORY

01777 CLAMPS

Additional clamps for raising the mirror with people over 190 cm in height, for mounting on Lux Postural analyser - code 01085.

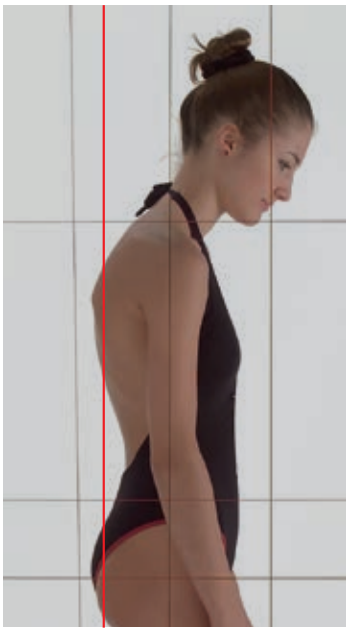


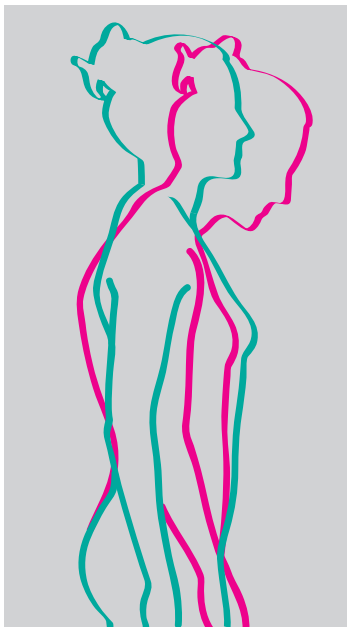
PHOTOS COMPARISON (GPS 5.0 software) – Easy search and fast retrieval of photos from a patient's database is a remarkable feature. This function of the Chinesport software is called "Grid" because all the photos recorded are arranged in a grid by date and position used for the analysis. Two photos can be selected for comparison by just clicking on them.

Photographic analysis *of posture*

01087 PHYSICAL ANALYSER

It consists of a bilaminate platform with an aluminum rod along which one webcam slides vertically. It is supplied with the GPS 5.0 software that allows acquiring and handling the images of the different body segments and of the foot pressure. It can be used in combination with the Lux Postural analyzer – code 01085 and the Lux Podoscope – code 02990. The photo covers the entire body of the person examined, and must also include the mirror at the top. Usually the first position is frontal, with the person looking in the operator's direction. The person is asked to take up a natural position and look straight ahead. Typically four photos are acquired: front, left side, back, and right side. The person follows the outline on the platform to position the feet correctly. Another reference point is the centre of the malleolus bone, which must be at right angles and centred in relation to the straight line on the platform for each of the positions indicated. Correct positioning of the feet on the front / rear and sagittal plane allows photography to be repeated at later stages. Once initial calibration operations have been completed, angular or linear measurements can be taken for various areas of the body, and directly on individual photograph. The measurements taken can be saved along with the photograph itself, in the patient's electronic folder for the date of the examination. The photo may also show virtual vertical and horizontal lines as a reference for the measurements to be taken. The computer is not included, but it can be ordered as an accessory code 01799 with webcams configuration in advance and GPS 5.0 software pre-installed. Dimensions: cm 45 x 35 x h 135; Weight: 7 kg





01799 COMPUTER

Computer is provided with 21.5" touch screen display and Windows 8.1 operating system in English version. The end user can change easily the language version. The GPS 5.0 software is pre-installed with configuration of the webcams that are included in the hardware. In this case the whole purchased postural analysis system is tested in production before shipment. We recommend not to install other software on the computer.

Introduction to Stabilometry

Stabilometry has introduced measurement in the observation of orthostatic posture control phenomena. Thanks to stabilometry it is possible to learn the distribution of a certain number of parameters that characterize the “normal” orthostatic posture behaviour.

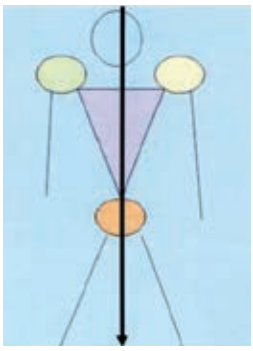
General information - Posture and barycentre

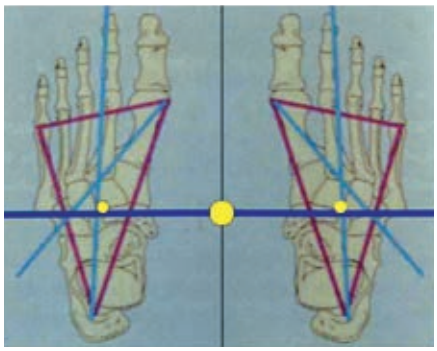
Every mass or body is composed of a multitude of small particles attracted downwards by the force of gravity. This attraction to which the particles of the body are subject produces a system of forces that are practically parallel and the result of these forces acting vertically downwards is the weight of the body. It is possible to localise a point in which one can apply a single force that is equivalent, in terms of intensity, to the weight of the body and which acts vertically upwards, so as to confer on the body a state of equilibrium in every position.

This point is called the centre of gravity or barycentre, and can be described as the point in which the entire weight of the body is concentrated. The barycentre is the exact centre of the mass of a subject, i.e. its geometric centre when the subject has an even and symmetrically distributed mass. If the mass, as in the human body, is distributed asymmetrically in relation to the horizontal plane, the barycentre will be located proportionately closer to the larger and heavier area.

Furthermore, the centre of gravity of two segments is always on the line that joins the centre of gravity of these segments, i.e. in a point located in an intermediate position with respect to the centres of gravity of the two segments, but proportionately closer to the centre of gravity of the heavier segment. In an upright posture, if one extends the vertical line, from the centre of gravity to the contact area, it will be in the centre of the contact area (an almost trapezoidal polygon, constituted by the lateral profile of the feet and by the two lines constituting the front and rear part of the feet), ± 3 cm in front of the ankle.

The line of gravity therefore passes along the sagittal plane about halfway between the tibiotarsal and metatarsal-phalangeal joints, and along the frontal plane, in the well distributed support between the two feet. Around the line of gravity the body is hypothetically in a position of equilibrium, implying a uniform distribution of body weight and a stable position of each joint.

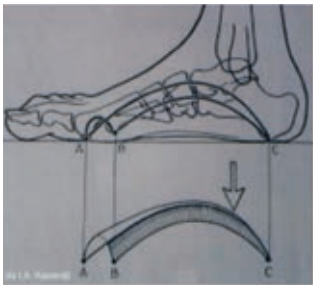




The importance of foot

The foot is fundamental for dynamic and postural functions, and as suggested by the studies of French biomechanics expert Kapandji, we can consider the plantar surface a vault supported by three arches:

A. Towards the 1st metatarsal;
B. Towards the 5th metatarsal;
C. Towards the heel.



(“The Physiology of the Joints -volume III” - KAPANDJI •1999)

Measurement repeatability

Using the Podata™ diagnostic unit, the software allows measuring by virtually moving the load cells (the elements that “measure” the weight) so as to place them near the heel, the 1st and the 5th metatarsal.
This operation has a great advantage: it will no longer be necessary to force a patient to assume certain positions — especially unusual positions — on the platform to ensure the stabilometric examination can be repeated.
The patient can stand on the platform in a comfortable upright stance.
The professional will move the load cells virtually to the preset points, thus ensuring the repeatability of measurement. Patented invention.

THE VIRTUAL MOVING OF THE LOAD CELLS (GPS 5.0 software)
The patient is free to put the feet on the footboard following his natural posture, it will be the photographic vision of his plantar support point who will guide the operator for the positioning.

Stabilometric footboard

Made in Italy

01599 PODATA™

Stabilometry footboard, bipodalic with incorporated podoscope that can be directly connected to a computer with two USB ports. The device is featured by six load cells that can be positioned to detect the distribution of the body weight in the points corresponding ot the 1st metatarsal, the 5th metatarsal and heel of each foot. The GPS 5.0 software makes possible to position the six load cells at the pre-set points under each foot and this operation not only simplifies the preliminary steps before the test, but eliminates completely any predefined positioning of the patient as necessary for similar equipment. This movement of the load cells guarantees repeatability of the measurements, even at a later stage. It is also used for measuring the mid position of the body's centre of gravity and its small movements around that position. The device has been certified as a class I medical device, with a measuring function. The stabilometric test can be done under various "examination conditions", in looking for afferents that affect the person's postural behavior. The computer is not included, but it can be ordered as an accessory code 01799 with webcams configuration in advance and GPS 5.0 software pre-installed. Working safety load: 135 kg; Dimensions: 47 x 99 x 47 h cm Weight: 35 kg

01767 PODOSTABIL 2

This item provides greater safety to the individual when he stands on a podoscope or a stabilometric footboard. It consists of a bilaminate base, aluminum side bars and wooden handrail. The device can be ordered separately or be part of a postural work station (see following pages). Working safety load: 135 kg Dimensions: cm 71 x 128 x h 126 Weight: 28 kg

TECHNICAL SPECIFICATIONS	
ARTICLE CODE	01599
	PODATA
Power Supply	Primary: 230V-50/60 Hz
Consumption	0.2 A
Dimensions (mm)	1002x464x468H
Glass work surface dimensions (mm)	430x400
Weight	35 Kg
Minimum Load	30 Kg
Max. static load	135 Kg
Fuses	0.63A 250V 5x20mm
USB connection	USB 2.0
Load cell system with 6 cells and 6 converters	A/D 12 bit
Load Cells	6x100Kg
Measurement uncertainty	Weight: ±0.5% ÷ ±0.5kg
	Barycentre: deviation ≤5mm
Resolution (minimum reading range)	100g
Class Device according MDD 93/42	1 with a measurement function

WHEN EXAMINING A PATIENT'S STABILITY (GPS 5.0 software) – the software provides interesting data as to: localization on the ground of a person's barycentre projection; the dynamic recording of such projection at the time of observation; the localization and dynamics of the barycentre of either foot; The distribution of the load between right and left foot; The distribution of the load between the 1st metatarsal, 5th metatarsal and heel.

GPS 400 *Posture analysis system*

INTENDED USERS:
Posture analysis can be used jointly in several medical disciplines if there is a will to consider the individual as a whole within a multidisciplinary treatment, therapy and prevention program. We recommend our posture analysis systems to the following professional categories:

- Orthopaedists
- Physiatrists
- Physiotherapists
- Orthopedic technicians
- Osteopaths
- Chiropractors
- Ophthalmologists
- Otorhinolaryngologists
- Podiatrists
- Orthodontists
- Speech therapists
- Graduates with a degree in Motor Sciences

Global Postural System

CE 0434

PC with pre-installed software included.

01762 GPS 400

The GPS 400 is a posture analysis system that is made up of various hardware units and software known as GPS 5.0, that is, version 5 released in 2011. More specifically, the units comprise a DESK TOP - code 01800, a stabilometric platform, PODATA – code 01599, with six load cells and a built-in camera, a support structure, PODOSTABIL 2 – code 01767, for greater safety for the person when getting up and down and when stationary, and a posture analysis device, LUX POSTURAL ANALYZER – code 01085, with vertical / horizontal strings for postural reference and a mirror at the top. All the hardware elements are attached to one another, and the system as a whole has been certified by an authorized Body as a class I medical device, with a measuring function. The GPS 400 is therefore a modular station made up of all these elements. The computer is included with GPS 5.0 software pre-installed and performed configuration settings for the webcams provided with hardware purchased. Basically the system uses photographic and stabilometric analysis.

Class I medical device with a measuring function (1M)

DIMENSIONS

GPS 400 *Posture analysis system*

Made in Italy

The GPS 400 postural lab is made up of the following devices:

01085 LUX POSTURAL ANALYZER

It is a device typically used for analysing posture in the frontal, posterior and lateral planes. The device consists of a bilaminate platform, two aluminium side bars, measuring indicators and sliders with strings for postural reference (Barré's vertical evaluation), and an adjustable mirror on top. The device can be ordered separately. Bars can be extended for accommodating people taller than 190cm by applying the accessory "clamps" code 01777.
Dimensions: 80 x 72 x 225 h cm
Weight: 19 kg; Capacity 135 kg

01599 PODATA™

Innovative, patent pending device for stabilometric analysis. It consists of a bilaminate platform with crystal top, with 6 load cells and a webcam installed inside. Comes with specific, multilingual software. Main function: identification of an individual's barycentre and weight distribution on each foot - in the points corresponding to the 1st metatarsal, the 5th metatarsal and the heel - regardless of the upright stance that the patient assumes on the platform. The device can also be ordered separately.
Dimensions: 47 x 99 x 47 h cm
Weight: 35 kg; Capacity 135 kg

01767 PODOSTABIL 2

This item provides greater safety to the individual when he stands on a podoscope or a stabilometric footboard. It consists of a bilaminate base, aluminum side bars and wooden handrail. The device can be ordered separately or be part of a postural work station (see following pages).
Working safety load: 135 kg
Dimensions: cm 71 x 128 x h 126
Weight: 28 kg

01800 DESK TOP

Desk Top is a bilaminate desk with a plexiglas column for positioning the webcams that are not included in the supply.
In case of purchase of GPS 400 or GPS 100 postural labs the desk top is equipped with one webcam.
Dimensions: 71 x 50 x 130 h cm
Weight: 40 kg

OPTION

01618 CERVICAL TEST

Electronic helmet that makes it possible to gather data on head movements through space via a software. The unit can be integrated in GPS 400 postural lab or other devices.

First of all the person is asked to remove their shoes and socks as well as clothing on the upper part of the body to allow the possibility of subsequent back examinations as well. Basically, the posture analysis uses photographic and stabilometric analysis.

GPS 100 *Posture analysis system*

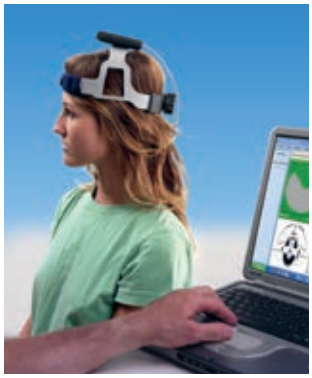
Global Postural System

01759 GPS 100

Posture analysis system made up of a number of units and a software for acquisition and handling of images of different body segments and of the foot pressure, by means of two webcams. It consists of “Podostabil 2 ” - code 01767, “Lux Podoscope” - code 02990 and “Lux Postural Analyzer” - code 01085. In addition, a bilaminate desk with a Plexiglas column for positioning the webcams and a mounting kit for connecting the units are supplied. For more information, refer to the descriptions of the individual units and software specifications. The system makes possible photographic analysis; stabilometric analysis can be integrated later in case of purchasing a PODATA stabilometric platform. The computer is included with GPS 5.0 software pre-installed and performed configuration settings for the webcams provided with hardware purchased.
Overall dimensions as GPS 400.

PC with pre-installed software included.

DIMENSIONS



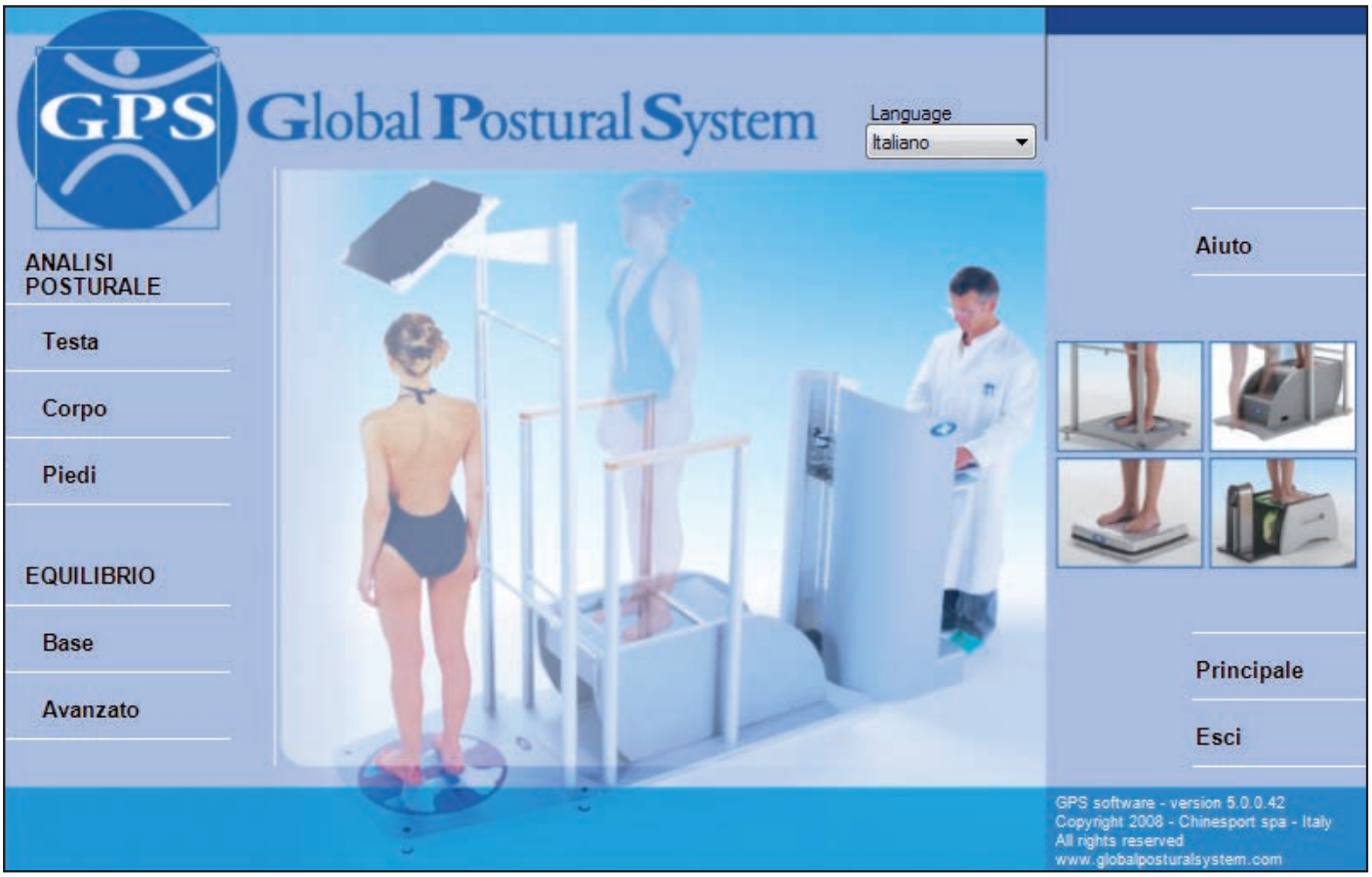
OPTION

01618 CERVICAL TEST

Electronic helmet that makes it possible to gather data on head movements through space via a software. The unit can be integrated in GPS 400 postural lab or other devices.

Collecting data and processing imaging

It can be used with the following posture analisys systems: GPS 400, GPS 100, Physical Analyzer, Foot Analyzer. The software is modular, i.e. functions are activated depending on the chosen analysis systems. The software can be upgraded with more functions at a later stage, adding more or different diagnostic units to the posture analysis system in use. The software is set to be operated in a multilingual environment. The user can add a new language if the desired language is not available, by entering a translation from English. The software also has an online help feature.



"Start-up" Screen

"ANAMNESIS" AND EXAMINATION DATA

A postural examination starts with an interview in which the doctor gathers all useful information on a patient's life and previous experiences; such information can play an important part in identifying causes of pain and improper postural habits. It is therefore essential to record these data: the software allows creating a patient file to save personal data and the initial "anamnesis", to which data recorded in the next examinations will be added at the scheduled times. Medical advisors have been consulted to develop the anamnesis function based on everyday professional experience. For this reason, it also includes a series of closed-end questions to make it easier to fill in data (e.g. medications, eating habits, etc.)
The medical record, with any examination data, can be printed and handed in to a patient who may wish to consult other professionals, according to a multidisciplinary approach.

PHOTOS OF THE PATIENT UNDER EXAMINATION

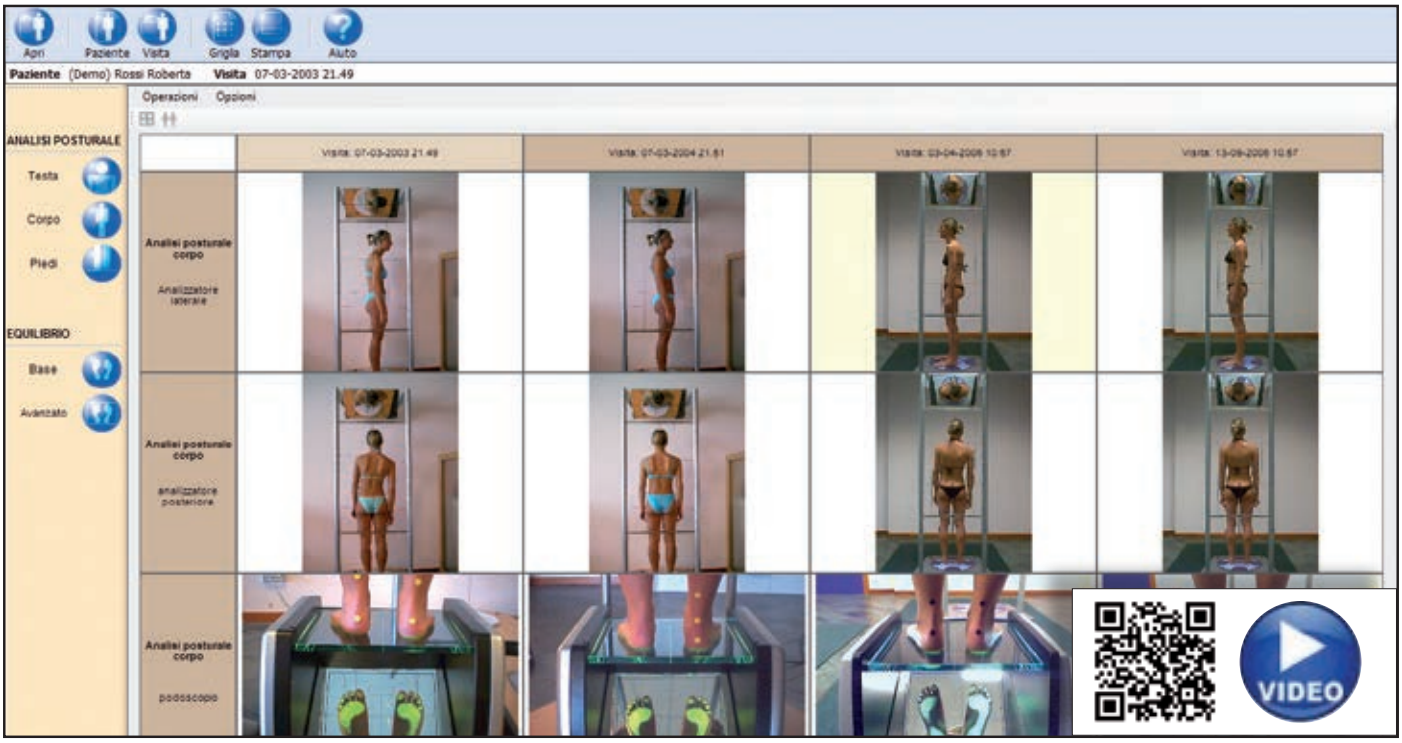
Digital image acquisition for each body segment of the patient under examination (feet, knees, torso, cervical region, full body, mouth, etc.) is an essential feature of our posture analysis systems and is the first stage in the procedure.Professionals can request more webcams in addition to the ones supplied, to acquire any other types of photos they may be interested in. Professionals can choose from a range of "test conditions", that is a series of test situations, while investigating what afferent pathways have a negative effect on patient posture during examination (e.g. eyes open / closed, teeth open / clenched, face to the right / left, etc.). Such test conditions can also be customised. Finally, all the photos can be stored inside a folder named after the patient and by date of examination. One more remarkable feature is that all the information concerning the examination, from photos to quantitative data, can be exported to be used in future clinical investigations and statistical applications.

VIDEO

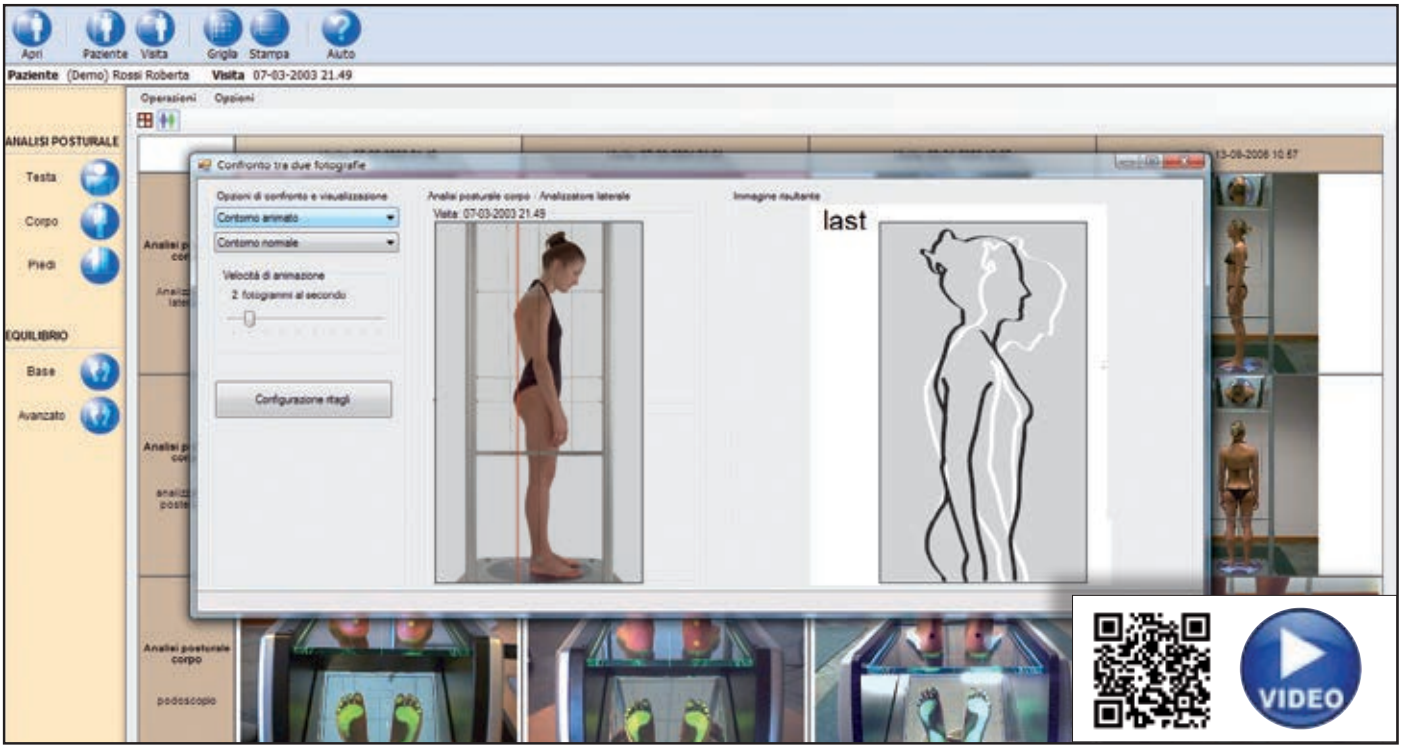
SOFTWARE GPS 5.0 *photographic analysis*

THE GRID AND DATA COMPARISON AT DIFFERENT TIMES

At the beginning of the examination it is advisable to record patient entry data (general and clinical data). Then the photo acquisition process can be started (webcam configuration is required prior to this). A photo recorded during examination can be immediately compared with a similar photo collected in previous sessions, to assess whether there have been any improvements in posture after a treatment. Another specific function, which can detect the slightest changes in posture, allows two photos, taken at different times, to be overlapped showing their outline and creating an animation. The patient can then be given a printed report showing this evidence. Easy search and fast retrieval of photos from a patient's database is another remarkable feature. This function is called "Grid" because all the photos recorded are arranged in a grid by date and position used for the analysis. Two photos can be selected for comparison by just clicking on them.



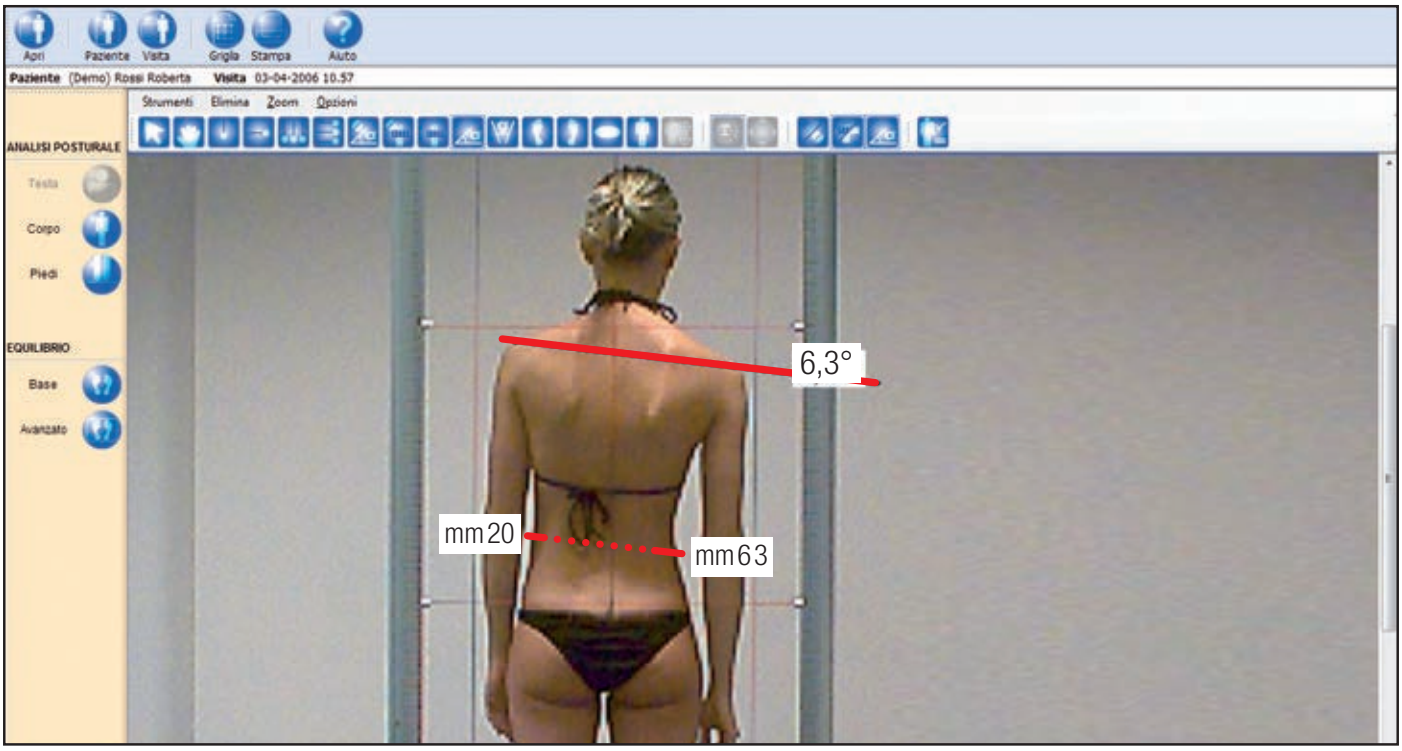
"Grid" Screen



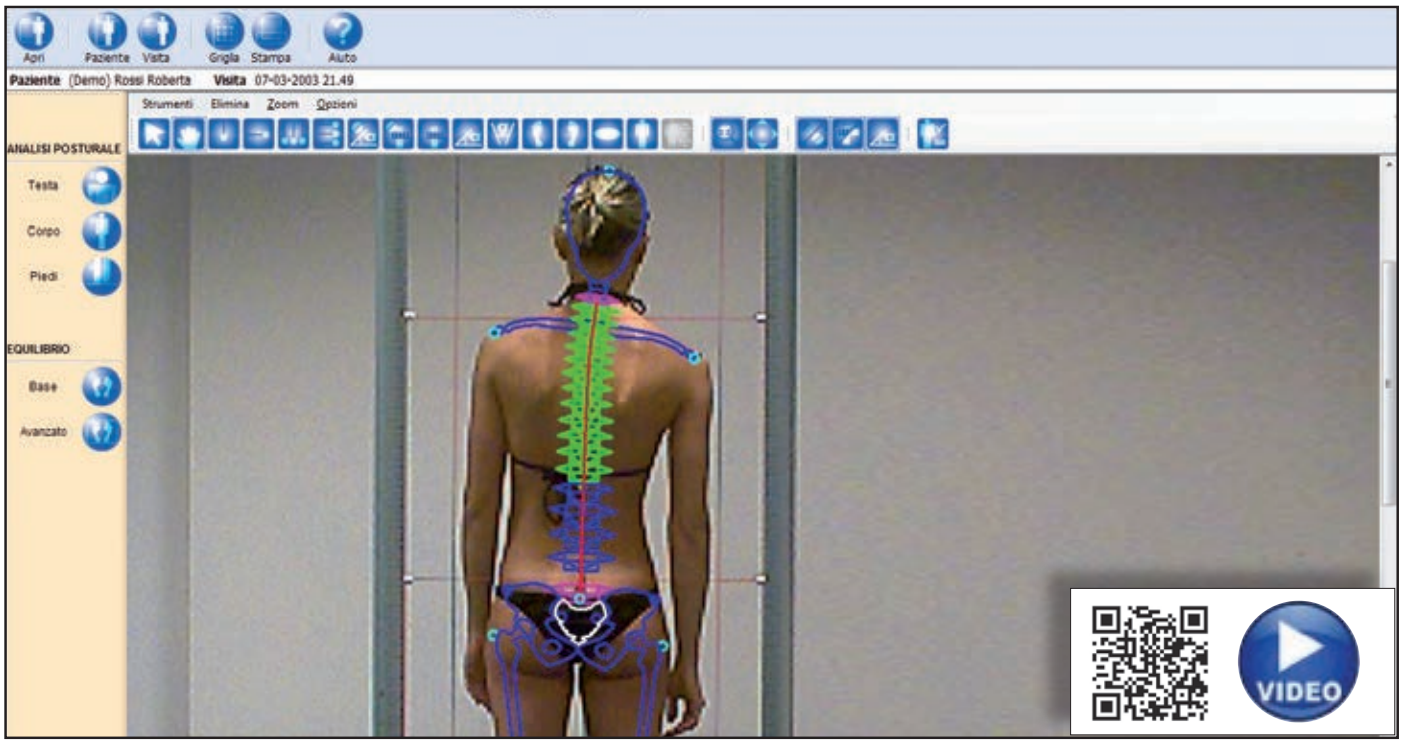
"Compare Photos" Screen

MEASUREMENTS AND SKELETON SIMULATION

A photo of a patient, of a body segment or in the position required for the analysis may be measured by professionals. Measurements can be taken after specific calibration; there are many types of measurements (linear, angular, angular between two segments, etc.). Virtual plumb-lines can also be drawn on the photo for further reference during postural analysis and to detect forms of dysmetria. Another function professionals may find interesting is the chance to produce a virtual representation of the entire skeleton - and of the vertebral column in particular - if adhesive markers are first attached to the suitable "anatomical landmarks" on the patient.



"Photo Measurements" Screen



"Vertebral Column Reproduction" Screen

SOFTWARE GPS 5.0 *stabilometric analysis*

The central nervous system, through its extero- and proprioceptive receptors, is able to identify the best postural strategies, moment by moment, adapting them to the contingent situation. As regards the upright stance, this efficiency is manifested with the distribution of body weight over both feet. More specifically, when examining a patient's stability, the software provides interesting data as to:

- localisation on the ground of a person's barycentre projection
- the dynamic recording of such projection at the time of observation
- the localisation and dynamics of the barycentre of either foot;
- The distribution of the load between right and left foot;
- The distribution of the load between the 1st metatarsal, 5th metatarsal and heel.

These data are valuable for posture analysis in investigating the causes of improper posture habits and possible dysfunctions, as well as in identifying the best prevention measures and / or therapy solutions. It is important to remember that deviating to the right or left is not directly connected to being right- or left-handed. Please note that a multidisciplinary treatment is always advisable and the software allows all of the patient's quantitative data and photos to be exported for clinical examinations and statistical applications.

Professionals can choose from a range of "test conditions", that is a series of test situations, while investigating what postural afferents have a negative effect on patient posture upon examination (e.g. eyes open / closed, teeth open / clenched, face to the right / left, etc.). Such test conditions can also be customised.

CHINESPORT Cultura Libreria & Videoteca

01936.DVD POSTURE ANALYSIS – A THEORETICAL AND PRACTICAL COURSE

This video-course aims at giving an outline of the afferents in posture and their overall implications on posture. The resulting posture analysis is conducted on a practical level, describing the tests and examinations that can be carried out on an individual, as well as the equipment available for evalutating the development of improper posture over time. It consists of 3 DVDs. Duration: over 3 hours; Speaker: Dr. Andrea Pelosi; Available languages: Italan, English, German.

01897 FUNCTIONAL ASSESSMENTS FOR POSTURAL PATHOLOGIES

Excerpt from the book "Oral interferences in postural and cervical-mandibular-cranial syndromes" chapter 3 and 4. The volume is the result of 20 years of constant research carried out by the author on posturology and, at the same time, broadmindedness and curiosity towards new relationships with disciplines deeply related such as speech therapy, otorinolaryngology, not to mention osteopathy and chiropratic. English Edition; Author: Dr. Andrea Pelosi. Format 17 x 24; Pages: 60

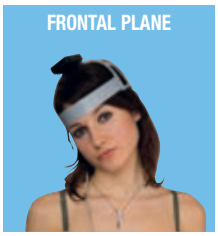
FOURIER ANALYSIS allows identifying which body parts are performing movements and their frequency as well. The whole body is represented in the fundamental frequency analysis while other body parts are represented in the harmonics displayed in the graphs. The analysis is carried out in the 3 axes in space, analysing lateral and longitudinal movements and the movements in the Z axis (vertical), that is the analysis of the variation in weight of a patient in his/her natural swinging motion.

Other Tools *for posture analysis*

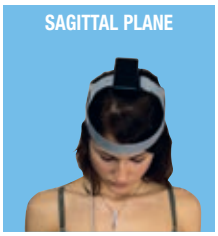
01618 CERVICAL TEST

Rotation, flexo-extension and the left or right lateral flexion of the head are functionally very important parameters to check the symmetry and the normal excursion of the head that can be performed by the patient. Various means have been suggested to check these parameters, ranging from clinical observation to the use of goniometres and inclinometers. The "Cervical Test" is an electronic digital helmet for posture analysis and checks these movements within the space of the patient's skull. The system has three Wheatstone bridges with magnetic space sensors that record the magnetic field incidence in a given sensible direction. The sensors are assembled orthogonally, allowing reading the earth's magnetic fi eld incident along the three space axes. In addition to this, the equipment uses a two-axis accelerometer, allowing the reading of its inclinations towards the gravity vector. This diagnostic unit can be integrated in the Physical Analyzer, GPS 400 and GPS 100 posture analysis systems. The computer is not included.

This unit allows collecting data on the head movements of the subject through space: right/left flexion, flexion and extension, and rotation. It is possible to test the patient's symmetry and normal range of movement.



Lateral flexion or inclination

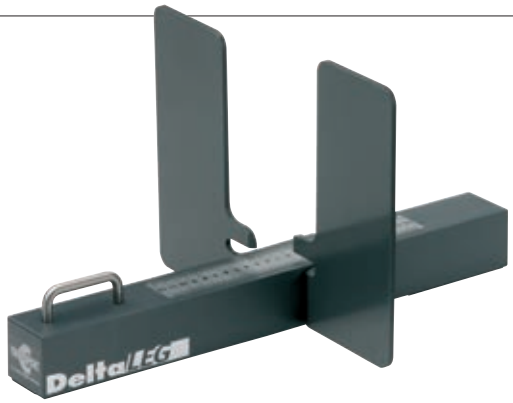


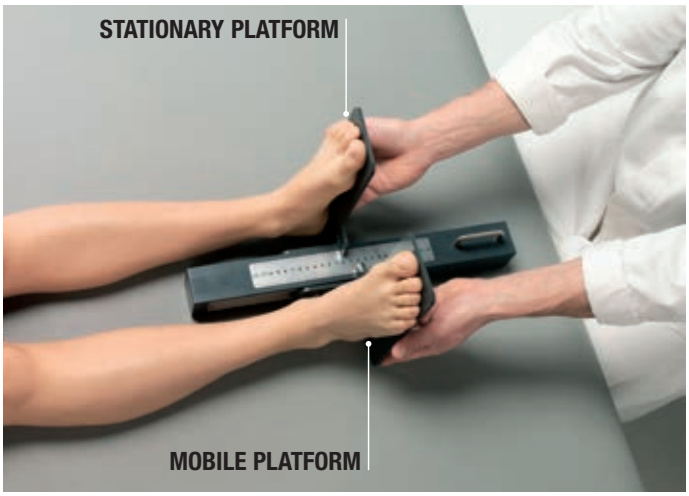
Flexion and extension

Rotation or torsion

01303 DELTA LEG

The Delta Leg is a non-invasive manual instrument for evaluating the heterometry of lower limbs without any load bearing. It consists of a bar with two orthogonal platforms: one is stationary, while the second moves along the longitudinal axis of the bar and is equipped with a pointer indicating the positive or negative numeric value of the heterometry on a millimetric scale on the upper surface of the bar. The "zero" value is set with reference to the stationary platform. The precise structure of the instrument, the mobile platform's accurate sliding system and the millimetric scale allow fast and reliable measurement of the differences in length of the lower limbs with a margin of error of just a few millimetres. The instrument comes with a manual (code 01462). Dimensions: cm 45 x 28,5 x 22,5 h - kg 2





01462

DELTA LEG MANUAL

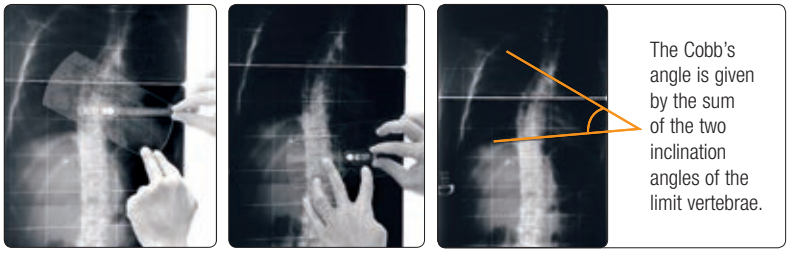
Guide to "Delta Leg", a non-invasive manual instrument for evaluating the heterometry of lower limbs without any load bearing. Author: Dr. Flavio D'Osualdo (Director of Pediatric Rehabilitation Center in Udine - Italy); Available languages: Italian/English

Other Tools *for posture analysis*

06855 D'OSUALDO INCLINOMETER

The D'Osualdo Inclinometer is an instrument for measuring the Cobb and gibbus angles. The inclinometer is made of an almost-rectangular plexiglas element with a goniometric scale; a small rod (free to rotate) with a bubble is positioned at the centre of the scale. The free end of the rod has the reading index for the goniometric scale. The longest side of the rectangle has a recess in order to make its application on the patient easier (in the event that the spinous processes of the vertebrae are protruding). The inclinometer is a manual instrument, normally used in two clinical situations:

1. when measuring the rotation angle of the torso during the forward-directed flexion test;
2. when measuring the Cobb's angle on X-rays (both in AP and LL projection), therefore both for scoliosis as well as kyphosis/lordosis. The instrument comes with a manual (code 01304).



MEASURING TECHNIQUE OF THE COBB'S ANGLE WITH THE INCLINOMETER ON THE X-RAYS

In addition, measuring the angle is faster than the traditional method (it only requires moving the instrument close to the limit vertebrae and reading the value on the graduated scale); it does not require additional instruments, it does not deteriorate the X-rays and it simplifies measuring by eliminating a few possible causes of error. Finally, an advantage of the inclinometer over other instruments is the possibility of measuring both the rotation angle of the patient's torso (gibbus) as well as the Cobb's angle on the X-rays with one simple instrument.

CHINESPORT Cultura Libreria & Videoteca

01304

D'OSUALDO INCLINOMETER MANUAL

Guide to the inclinometer, a non-invasive instrument for measuring the Cobb and gibbus angles. Author: Dr. Flavio D'Osualdo (Director of Pediatric Rehabilitation Center in Udine - Italy); Available languages: Italian/English/German/ Spanish/French

01706 D'OSUALDO ARCOMETER

The arcometer is a manual device made up of a ruled bar bearing three perpendicular arms: the first one is fixed at one end, the central one is mobile on two axes and the third one mobile on one axis only. The ends of the three arms identify three points through which a single circumference can be drawn. Using the arcometer we can measure the chord and the rise. These two values allow us to calculate the radius of the curve and the Cobb's angle by using a two entry table. The instrument comes with a table to calculate the Cobb's angle (current use to integrate the clinical examination). The instrument comes with a manual (code 01769).

A validated instrument for non-invasive measurement of KYPHOSIS and LORDOSIS

The picture shows the arcometer working principle: note that, in order to make calculations easier, the intermediate arm has to be placed into the mid-point between the lateral arms.

CHINESPORT Cultura Libreria & Videoteca

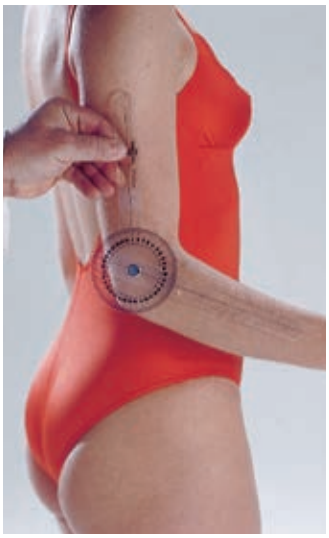
01769

D'OSUALDO ARCOMETER MANUAL

Guide to the Arcometer, a non-invasive instrument for measurement of kyphosis and lordosis. Author: Dr. Flavio D'Osualdo (Director of Pediatric Rehabilitation Center in Udine - Italy); Available languages: Italian/English

Other Tools *for posture analysis*

Made in Italy



06800 GONIOMETER

06810 PLUMBLINE

06830 ANALYZER

This device allows analysing the difference in level of the iliac crests. For use in assessing dysmetry in the lower limbs.

06135 TWIN MIRROR

Twin-mirror is a device for viewing the patient's global posture onto mirrors. Hinged, painted steel frame. Fixed to wall with the mirror orientation wheels that fold away.
Dimensions 100 x 2 x 200 h cm

06730 SET OF SHIMS "G"

1 shim, 0.5 cm
6 shims, 1 cm

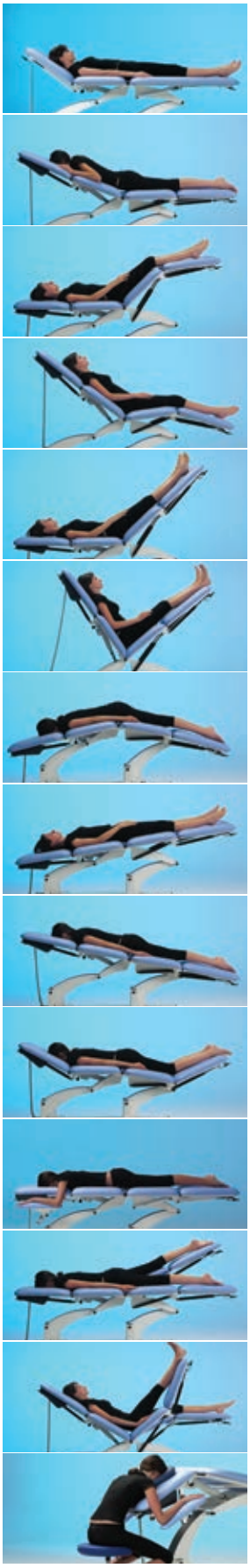
06061 POSTER

Foot morphology. Plasticized poster, non-glare, matte finish surface.
Dimensions 66.5 x 48 h cm
Italian Edition.

M30 NORMAL FOOT
13 x 24 x 9h cm - 0.4 kg

M31 FLAT FOOT
12 x 24 x 10h cm - 0.4 kg

M32 CAVUS FOOT
13 x 23 x 10h cm - 0.4 kg

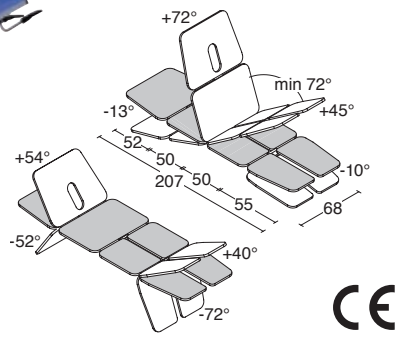


The Chinesport tables of the Sinthesi Series make possible passive, passive/active and active therapy and are integral part of a postural training approach. We present here below the top model of the range named Mi.To. table in one of the possible configuration with electric height adjustment by foot rail, eight mobile sections, adjustable by means of gas springs or second motor unit, head section with armrests, wheels operated by single pedal, and possible choice of upholstery colour among 24 available options. As regards other models and configurations belonging to the Sinthesi Series, and for further details referring to available options and accessories, please see the catalogue pages at chapter “Therapy tables”.

SINTHESI MITO

L	S	3	8	4	B	2	W	?

VIDEO



CE

TECHNICAL SPECIFICATIONS	
ARTICLE CODE	LS374
	Sinthesi MITO
Safe working load (kg)	180
Maximum load for backrest electric adjustment (kg)	120
Height adjustment (cm)	48 - 100
Min/max height adjustment time	sec 23
Work surface dimensions (cm)	207 x 68
Power Supply	220V 50-60 Hz / 24V 70VA
Fuses	Internal parts are not accessible
IP protection	IP54
Equipment weight (kg)	101
Adjustable sections	8
Backrest adjustable	by means of electric actuator
Upholstery fabric	1IM Class
Upholstery padding	Foam, 40mm thick / 30 kg/m3 density

ACCESSORIES

AC0017 AUXILIARY BATTERY
AC0037 ADDITIONAL FOOT SWITCH 1
AC0038 ADDITIONAL FOOT SWITCH 2
AC0039 ADDITIONAL HAND CONTROL 1
AC0040 ADDITIONAL HAND CONTROL 2
AC0083 ADDITIONAL CONTROL
AC0575 PEDAL SUPPORT
AC0578 SAFETY DEVICE

AC0032 FOLD-DOWN COUCH ROLL HOLDER
AC0034 TWO-PLY PAPER ROLL
AC0035 LARGE PAPER ROLL
AC0036 PROTECTION COVER

AC0022 WALL-MOUNTED BAR
AC0024 ? FACE PILLOW

? **CHOICE OF UPHOLSTERY COLOR** - important: always specify the upholstery code along with the chosen item when this option is available.

A	N	8	7	K	S	B	4	T	1	6	E	Z	G	F	H	9	Q	R	2	3	L	M	P

Introductory workshop in myofascial release techniques using Sinthesi therapy couches and Global Posture analysis.

What you will learn:

Participants will learn how myofascial structures adapt in the presence of poor posture in order to maintain economy of movement and pain free range of motion in joints. Global posture analysis using the GPS equipment enables therapists to identify structures that require treatment in order to restore proper posture and function.

The workshop will demonstrate how the Sinthesi treatment couches have become an integral part of postural training and treatments for many therapists. With its 8 independently moveable sections and quiet and seamless movement control functions therapists can offer a new and unique range of myofascial treatments that are effective and efficient in treating many disorders.

Sinthesi couches allow the therapist to effortlessly put patients into countless myofascial stretch postures that can be easily maintained for longer periods of time and without effort. In this relaxed position various techniques can be applied to provide restoring myofascial stretch, increase joint range of motion and obtain an antalgic posture for acute pain relief. Even more so, the Sinthesi couches are an ideal starting position to initiate CORE activation exercises from and start isometric muscle work.

The myofascial release techniques workshop is now available worldwide from Chinesport. It's the ideal starting point for practitioners seeking to enhance their myofascial work. Participants will learn how to use the unique Sinthesi therapy couch in a global approach to myofascial therapy in order to restore natural myofascial length and improve posture and function.

"The interpretation and understanding of dysfunctional mechanisms, induced by an alteration in the harmony of the body unit, lead us to consider how essential it is to regain that harmony by acting on the rebalance of muscle fasciae, through muscle chains, on the principles of their functional organization of their possible correlations (ascending, descending and mixed). …."

"If one or more elements, endogenous or exogenous, intervene and disturb such harmony, the body, just to keep balance, adjusts by trying to secure absence of pain. In order not to suffer, the body bends, extends, tilts, reduces its mobility and seeks comfort in these defensive adaptations, which certainly are less economical. Unfortunately this results in a considerable waste of energy, mostly expended by myofascial structures." (excerpt from the manual)

In this video is presented the Mi.To. postural table with introduction to the wide range of adjustments and possible posture positions. (Extract from introductory course on DVD by Dr. Francesco Mignani)

01778

MANUAL FOR THE MI.TO. TABLE

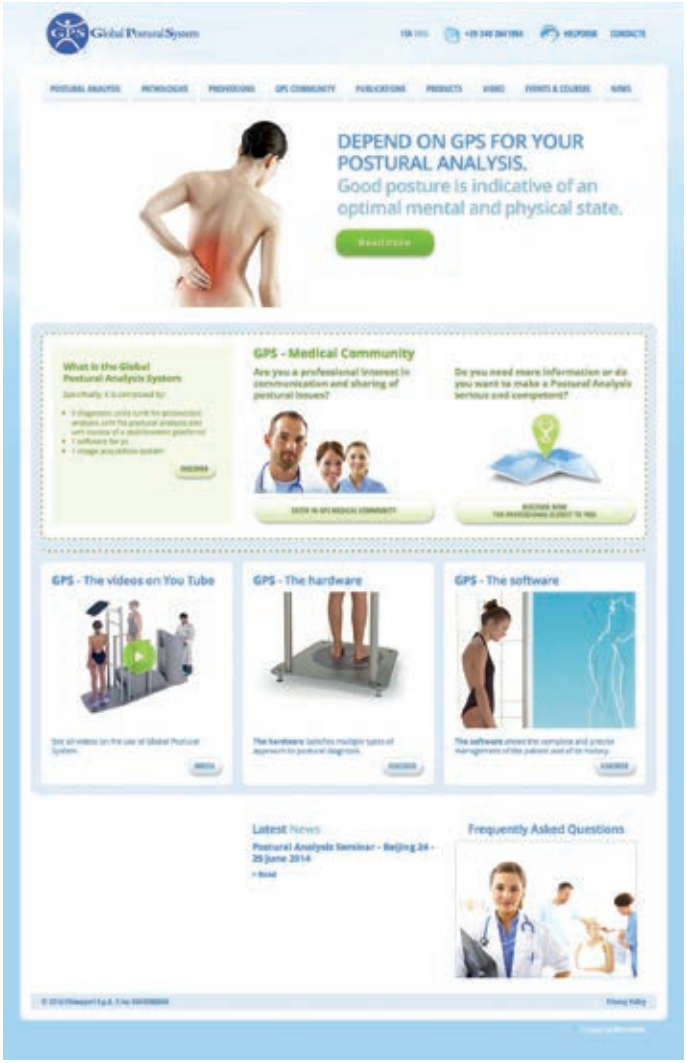
This document was written to offer useful therapeutic suggestions for active and passive treatments through postural exercises using the MI.TO. table. Emphasis is made on respiratory training, awareness of the vertebral column, mobilization exercises, muscle stretching, decompression of the intervertebral discs and tractions, strengthening and stabilization of the rachis, manual treatment for pathologies (e.g. spondylolisthesis, lumbosciatica due to hernia, painful scoliosis, hyperkyphosis) and application in sports activities. Author Dr. Francesco Mignani; Languages: Italian/English Format 15 x 21; Pages 30

01945.DVD

VIDEO ON POSTURE EXERCISES WITH THE MI.TO. TABLE

This theoretical and practical course aims at giving an overview of the manual treatments that can be performed on a patient, within a wider postural training approach. The MI.TO. table allows performing passive treatments, in addition to passive/active and active work, on the patient. Recovery of elasticity and the fight against rigidity and ageing of the structure are the goals of this treatment. Author Dr. Francesco Mignani; Languages: Italian/English, Duration: over 90 minutes

GPS Medical Community



• The website **www.globalposturalsystem.com** offers a free space to give visibility to all professionals using our posture analysis systems in Italy and abroad. The aim is to promote an interdisciplinary **scientific community** sharing hands-on experiences and involved in on-going research on posture and its possible alterations. This themed website will be promoted by web marketing campaigns. You can sign up for free.

• You can also view an outline of the **training courses** in the various posture-related subjects and scheduled both in Italy and abroad. The courses have been approved by the Ministry of Health and the lecturers are doctors and specialists.

• **Technical support** is available to help you if you have any queries or need more details about the software operation and capabilities. We also accept improvement suggestions. Specialised technicians monitor any submissions assigning priority and the appropriate response.

• The **latest software releases** can be downloaded for free by users in the download area. We also publish detailed scientific literature, such as degree theses, clinical research, books, editorials and testimonials.

GPS Global Postural System

Something about GPS community

Chinesport Spa is involved in research and development of posture analysis systems and offers you the possibility of free subscription in a medical/scientific community called GPS Community.

Common denominator of the club is acknowledgment of importance of the posture, and the use of GPS software. Chinesport Spa offers to this community the support of experts.

GPS Community 's mission is to become the preferred place of relationships among all the professional end users for the following reasons:

CONNECTION: users can share anonymous statistic elaboration and refers.

RESEARCH: data base creation for the research and improvement of posture normalization standards.

TRAINING: possibility for the members to participate at dedicated meetings, also introducing themselves like speakers with theirs works and case studies.

UPDATE: possibility to download free software updates and articles correlated.

PROMOTION: possibility of being visible like "Centre of studies in posture analysis" with indication for interested people how to find you for a possible visit.

DEVELOPMENT: with all the ideas growing in the community we can improve implementation of GPS software; all suggestions will be registered and will be subject of priority.

Are you looking for a qualified professional to make a postural analysis complete and careful?

HELPDESK

For technical support or to suggesting improvements.

„HEALTHY POSTURE FOR HEALTHY MOVEMENT“

Chinesport Global Posture System Training Progam

Chinesport also organises training events and detailed input on the question of posture by request, covering use of its analysis systems and proposed corrective therapies.
It relies on the collaboration of leading doctors and other professionals with international experience.

An example is provided below that shows an initial training module that can be requested by those purchasing a GPS 400 station. The course is not included in the purchase of the postural station.

Course Learning Objectives:

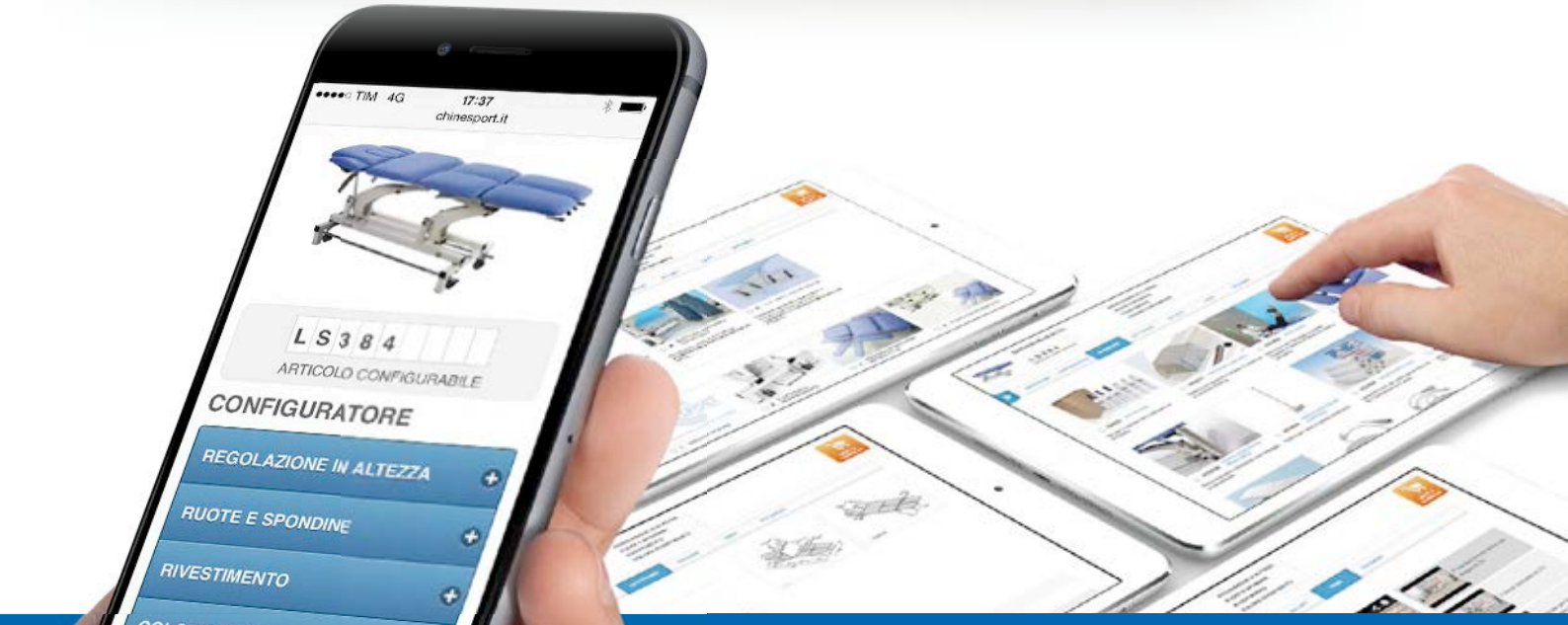
- Define posture
- Learn what affects posture and how posture affects human movement
- Explore all components of GPS400
- Learn how to conduct tests
- Learn what measurements can be made and how they can be interpreted
- Explore how results can be communicated to patients

Healthy static posture is a prerequisite for healthy motion.

Chinesport, just a click away

Chinesport's website has now also been designed and set up for those using mobile phones or IPads, not necessarily because they are out-and-about or travelling, but because they wish to know more about it while using our catalogue or other documentation. We are constantly involved in publishing new detailed information, photos (now even bigger), videos and multimedia files that are worth sharing. Finally, the website also provides a guide to putting the code together fora product made up of a number of parts.

Point, and explore the video!



CHINESPORT® ITALIA

REHABILITATION and MEDICAL EQUIPMENT

CHINESPORT spa
Via Croazia, 2
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Tel. 0432 621 621

www.chinesport.com