Posture analysis

CHINESPORT ITALIA

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Chinesport thanks all those who contribute to the development of the contents of this document.

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Posture analysis

More *Information,* better *Rehabilitation*

A GPS Postural Lab assessment of your patient's static and dynamic posture is the first and last step of any GPS Therapeutic Pathways intervention. It tells you where you are and where you can go.

Good global posture is an indicator of good musculoskeletal health. Yet prevalence and incidence of musculoskeletal injuries and disorders are reaching pandemic proportions. Our excessively sedentary and inactive lifestyle with long periods in fixed and strained positions leads to poor static and dynamic posture. This eventually makes healthy movement impossible.

It is paramount to regain control of our postural harmony by precisely identifying incorrect body positions and making targeted corrections. We need to reset and re-establish healthy posture.

Posture reeducation therapy and posturology are rapidly gaining popularity and recognition among experts. Decades of research and experience has helped us better understand how correct posture, and greatly improves the quality of life, helping prevent and treat a large number of dysfunctions and injuries.

For decades Chinesport has worked together with leading experts in global posture analysis. We are now at the forefront of researching and developing new, highly accurate tools to analyse static and dynamic posture as well as offering innovative therapeutic devices.

The GPS Postural Labs range is the result of our dedication to healthy posture for healthy movement. We offer five modular workstations from entry to expert level. This allows you to select a GPS Postural Lab that exactly suits your practical and clinical needs, while remaining affordable.

All GPS Postural Labs include our unique and proprietary software that assists you in making the right clinical decisions. They allow you to obtain and combine data from different subsystems that affect posture and ensure data is recorded in an accurate, repeatable and reliable way. This allows the clinician to make important

comparisons between visits to precidely record patient progress.

Medical general practitioners, orthopeadic specialists and engineers, physiatrists, physical therapists chiropractitioners, movement therapists, osteopaths and any other whose work relies on healthy posture will recognize the unique benefits of GPS Postural Labs assessments and analysis.

TARGET

Posture can represent a common language for different medical disciplines if there's interest in considering and observing a person as a whole, but also as part of prevention, cure and treatment program, therefore interdisciplinary. Our posture analysis laboratories are recommended for following professional categories:

- Orthopedists
- Physiatrists
- Physiotherapists
- Orthopedic technicians
- Osteopaths
- Chiropractors

- Kinesiologists
- Ophthalmologists
- Otolaryngologists
- Podiatrists
- Speech therapists
- Motor science graduates

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POSTURE ANALYSIS

Postural labs *Modularity*

Various Chinesport posture analysis laboratories are modular and can always be implemented after the purchase with additional hardware and software modules, and with addition of specific accessories. Below is an overview, first of all, of the five different laboratories based on main differences.

PL0110 RAFFAELLO

The system consists of a structure with one platform and two devices of pictures acquiring for static analysis of the subject in mono bi-podalic support, and back feet attitude.

SCANNER	STABILOMETRIC
●	-

PL0750 DONATELLO

The system consists of a structure with an original stabilometric platform for dynamic & balance analysis, as well as two devices of pictures acquisition for static analysis of the subject in mono bi-podalic support, and back feet attitude.

SCANNER	STABILOMETRIC
●	●

PL0120 GIOTTO

The system consists of a structure with picture acquisition device, and a postural analyzer for static analysis of the frontal /sagittal plane and for body districts.

This laboratory for static analysis of posture can be implemented later with addition of a platform and another structure for static analysis also of the podalic support, and eventually for dynamic and balance analysis.

SCANNER	STABILOMETRIC
●	-

Postural labs *Modularity*

Made in Italy

The platform for the static analysis of the foot can also be configured at a later time then purchase with components for superior software performance. In this case it is necessary a return to the factory. The Global Postural Lab represents the most complete laboratory series.

PL0700 MICHELANGELO

The system consists of a central structure with platform, a postural analyzer and three pictures acquisition devices for static analysis on the frontal and sagittal plane, as well as of bi-podalic support and back feet attitude.

SCANNER	STABILOMETRIC
●	-

PL0800 LEONARDO

The system consists of a central structure with platform, a postural analyzer and three pictures acquisition devices for static analysis on the frontal and sagittal plane, as well as of bi-podalic support, back feet attitude and for dynamic and balance analysis.

SCANNER	STABILOMETRIC
●	●

The blue path and pictures background

Some modules that harmonize with the central body of the GPS laboratory can be added. It is a structure that allows the patient without footwear not to walk on the floor during postural analysis, and to have a neutral background for the acquisition of pictures in different positions.

The background for pictures acquisition can be applied to all GPS laboratories, while for the additional path laboratory code PL0120 is excluded.

These modules are accessories, and they can also be ordered later then postural laboratory purchase.

Finally, please note that the computer is not included in the standard supply, but it is highly recommended as an accessory.

POSTURE ANALYSIS

Postural labs *Main parts*

For the posture static analysis of the whole subject under evaluation

Our laboratories have one or more pictures acquisition devices for the static analysis of the subject's posture under evaluation. They are high quality professional devices that allow the acquisition of high resolution pictures of the person. The scanned images can be enlarged on the screen with a specific GPS 6 software function in order to observe and analyze certain details or body districts.

In particular one or two external devices can be used for the acquisition of an entire person picture and / or the back-foot. In case of interest also of the podalic support analysis, a third device is prepared inside the specific platform part of the laboratory in use.

The enlargement function of the acquired images will also allow to perform measurements directly on the images themselves, which can be saved on images after being suitably identified or classified with a specific label.

During the start-up phase of the laboratory, an important operation is therefore setting of the resolution for the pictures acquisition with different devices provided.

The device for acquiring subject pictures must be used in combination with the essential part of the laboratory called "postural analyzer". The patient will have then to position on the postural analyzer.

The postural analyzer is also equipped with an upper mirror, inclined to observe also the possible shoulders rotation.

For further information on the postural analyzer, please consult related presentation pages below.

One of the advantages of this system of static analysis is that it is not invasive, and can therefore be repeated after the first visit, at different times during the therapeutic and postural re-educational path.

First stage

The person can be invited to position on the postural analyzer for pictures acquisition. The distance of the person from the specific acquisition device is predetermined, and it is an essential requirement.

The person will have to follow some rules for his correct positioning, in order to allow a subsequent comparison of the acquired pictures in different moments. It is possible to apply on the postural analyzer base, a sticker that guides the person to position in autonomous way for the acquisition of the four fundamental images. This is an accessory coded AC1046.

For the static analysis of the podalic stand, dynamic and balance

Whether specialists or centers are exclusively or mainly interested to feet analysis and podalic support, laboratories are available with a specific platform.

In particular, this platform called Podata is unique and original, and allows two levels of analysis. A first level of static analysis is based on the acquisition of the real-size person's feet picture in mono or bi-podalic. The acquisition of feet picture therefore allows an identification of the type, whether normal, hollow or flat foot. It is possible then, always at this stage, to carry out measurements and save them together with the picture itself in the electronic patient record for comparison with results in different moments.

The second level of analysis involves the acquisition of stabilometric data such as the gravity center of the subject under examination, and its position compared to the ideal one. It is also detected the body weight distribution on the two feet, and for each foot on the three reference points of the first metatarsal, fifth metatarsal and heel (Kapandji reference).
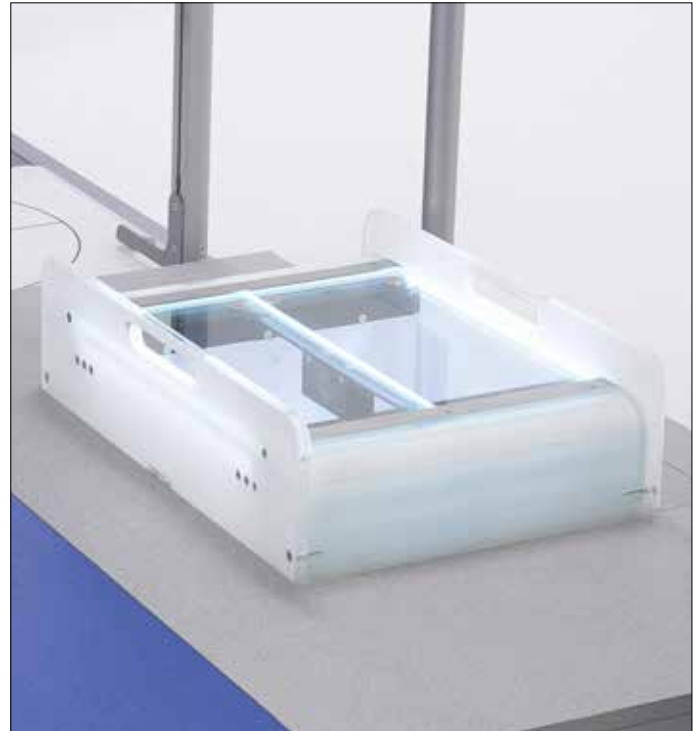

During the stabilometric tests further informations are then collected about subject fluctuations in the front / rear and lateral axes (the stabilogram), with one representation of the so-called "sway graph", and distribution of oscillation frequencies.

The same platform can therefore be configured differently, for a static analysis of the feet only (PL0110), or also dynamic and balance (PL0750).

In case of initial purchase choice for a static feet analysis laboratory only, system can be implemented in a second moment by adding dynamic and balance analysis parts. The laboratory therefore has its own scalability.

The platform must, however, return to factory for necessary hardware and software adjustments.
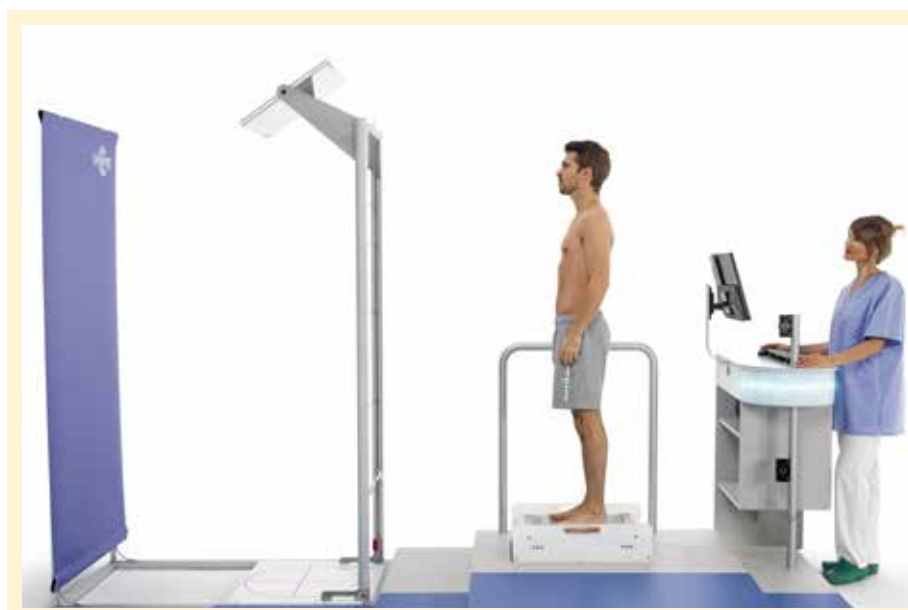
Second stage

The subject could be invited to move on the platform for the analysis of the feet, in static or dynamic mode and in search of balance. The height of the platform is reduced to facilitate the accessibility, and a safety handrail is a useful reference near the patient during the examination, in case of need. Is characterizing of our platform the possibility of setting the test duration. This makes possible to carry out also tests with biofeedback exercises and patient can check his progress on a big screen connected to the PC, and can therefore interact in correction.

POSTURE ANALYSIS

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Postural labs *Main parts*
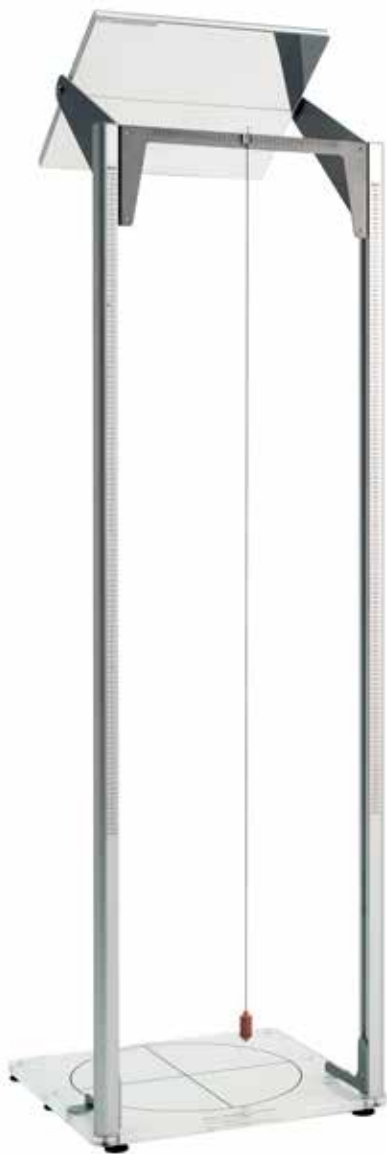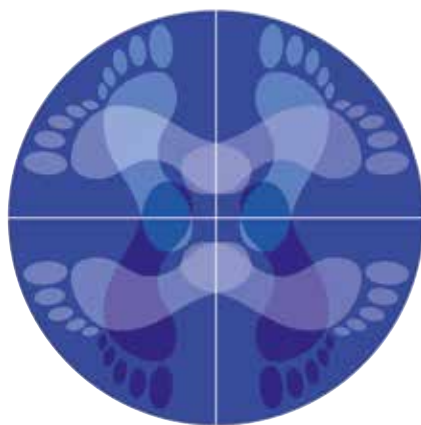

03002 POSTURAL ANALYZER

It is a structure composed of two lateral aluminum rods both equipped with a measure scale, an upper mirror with a midline and a plumb line. In addition it's possible to add as accessory code AC0870 a set three horizontal elastics and three vertical ones respectively adjustable in height and width by sliding cursors.

These elastics are used as guide lines in the observation of patient posture, and in the search for asymmetries and deviations. The central vertical elastic is characterized by a plumb line in the terminal part, and represents the first reference also for the person who has to position himself so that the malleolus is aligned with this vertical.

The person is then invited to move over the platform, and to follow some rules for its correct positioning, and this device therefore allows a visual check of the posture on the frontal and sagittal plane. Also the upper inclined mirror allows the observation of a possible shoulder rotation.

An accessory sticker coded AC1046 can be applied to the postural analyzer base. This accessory guides the patient to position autonomously for the acquisition of the four main images.

The device can be purchased separately or be part of our Postural Laboratory. It is suitable for people up to 207 cm tall, and the safe working load is 200 kg. Dimensions 60 x 66 x 220 h cm; Weight: 19 kg

AC1046 FEET POSITIONS ADHESIVE

It is a glossy colored sticker with feet representation oriented in four different positions that can be applied to the Postural Platform Analyzer coded 03002. The subject under examination is basically guided to position autonomously for the acquisition of the four main images (front, rear, right and left side) Dimensions: Ø 49 cm.

Further investigation using the GPS software

After determining a patient's basic posture type further investigation using the GPS software's measurement functions is very useful.

It helps therapists to better understand the underlying mechanisms for postural deviations and develop the more effective and efficient treatment plans. It is well-known that each patient compensates pain, injury, discomfort and overuse in their own particular way which leads to a virtually unlimited number of postural compensations.

At this aim the postural analyzer can be part of a postural lab code PL0120. It's possible to order missing parts in a second time.

Postural labs *Main parts*

A	B	C	D	E
good posture	forward head	thoracic kyphosis	lumbar lordosis	sway back

Barré vertical axis examination is another way to perform a fast and uncomplicated postural scan. In the sagittal view, a plumb line is placed along the occipital, thoracic and gluteal prominences. In good posture these landmarks lie on the same vertical plumb line. In forward head position the occipital prominence will lie anterior to the Barré vertical axis, while in increased thoracic kyphosis, the thorax will lies posterior to the Barré vertical axis. In patient's with an increased lumbar lordosis we will see that the thorax will lie anterior to the Barré vertical axis. In a sway back posture type all landmarks will lie on the Barré vertical axis, but the spinal curves are decreased and seem flattened.
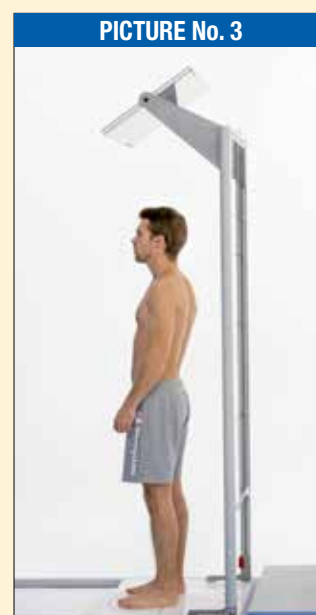

AC0870 ELASTIC GRID

An elastic grid can be supplied with the necessary supports for application to the postural analyzer - code 03002. These visual references can be useful, when it's not foreseen images acquisition through the software.

PICTURE No. 1	PICTURE No. 2	PICTURE No. 3	PICTURE No. 4

Basic images for a static analysis of posture are acquired on sagittal and frontal planes.

POSTURE ANALYSIS

Postural labs *Main parts*
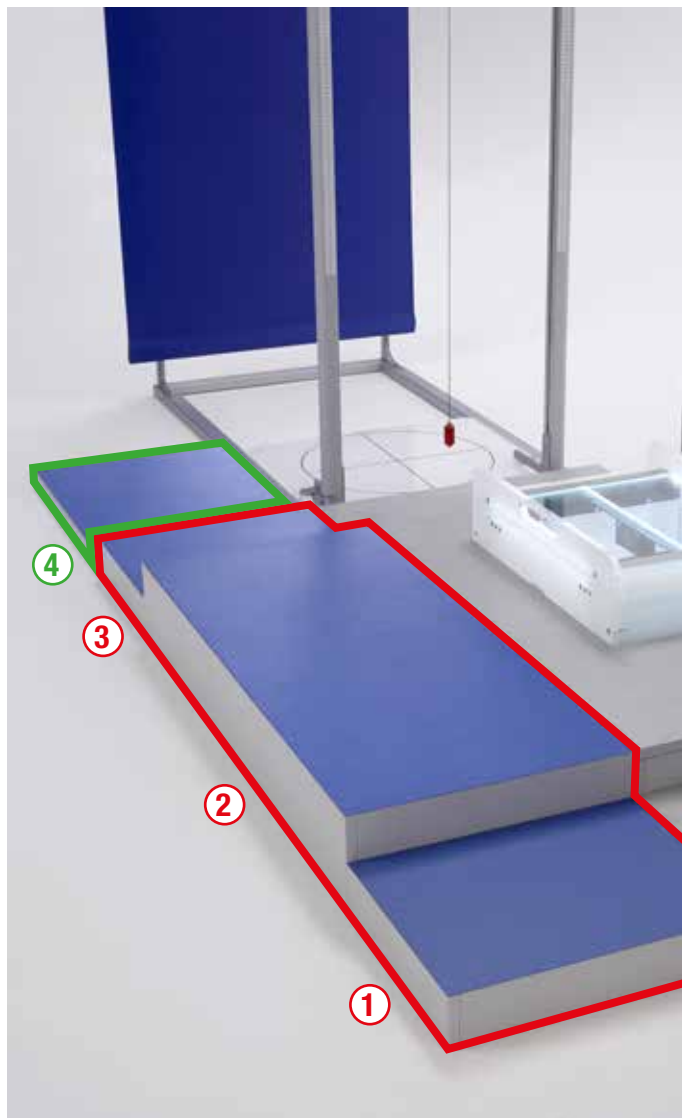
AC1245 BLUE PATH 1

It is a module made of four elements, which harmonize and become part of the main structure of laboratories coded PL0700 or PL0800.

The subject under examination can have a better highlighted path indicating where to position in order to proceed with the acquisition of the different images, and any eventual stabilometric data. Moreover during analysis he can walk without shoes always above the structure rather than on the floor.

In order to adapt to the surrounding environment, this path can be applied both from right or left sides of the main structure and the desk with the pc is designed to be placed on the opposite side compared to where is preferred to give accessibility to the patient under examination.

This module can also be ordered later from the purchase of the postural laboratory, and the assembly can easily be carried out by the end user. Dimensions: 50 x 258 x 17 h cm

AC1246 BLUE PATH 2

This module is a three-element version, variant of the accessory coded AC1245, which can be combined with a PL0110 or PL0750 laboratory. Dimensions: 50 x 258 x 17 h cm

High demands of patient safety, reliability and accuracy of measurements

Patient can now be guided by the postural analyzer in which static posture data is acquired, to the platform where dynamic posture and balance data are acquired, without having to set foot on the floor. The postural lab has been designed to ensure the highest level of safety achievable for any type of patient, in particular those vulnerable to fall or people with mobility problems. Having all the GPS laboratory postural elements strictly and firmly connected together, we guarantee greater precision, reliability and repeatability of the measurements. This is very important especially while making repeated measurements on follow-up visits.

POSTURE ANALYSIS

AC1247 PICTURES BACKGROUND

For pictures acquisition it is recommended that the background is neutral, in order to allow well-defined subject outlines. For this purpose it is possible to add to all ours laboratories a structure with a specific contrast coverage in blue color.

In this way the postural analysis laboratory can be positioned freely without constraints, or looking for an appropriate background, within the environment, where it is intended to be placed.

It can also be ordered after the purchase of the postural laboratory, and assembly can take place easily by the end user.
Dimensions: 68 x 78 x 215 h cm
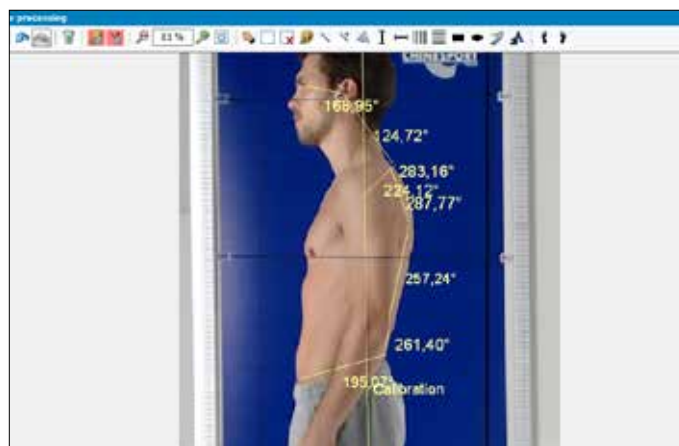
LOGO CUSTOMIZATION

You can ask a customization during the purchase phase of the accessory background coded AC1247 with the logo of the ambulatory or center. This logo will therefore appear in all acquired images of the patient or subject examined as a distinctive and promotional element.
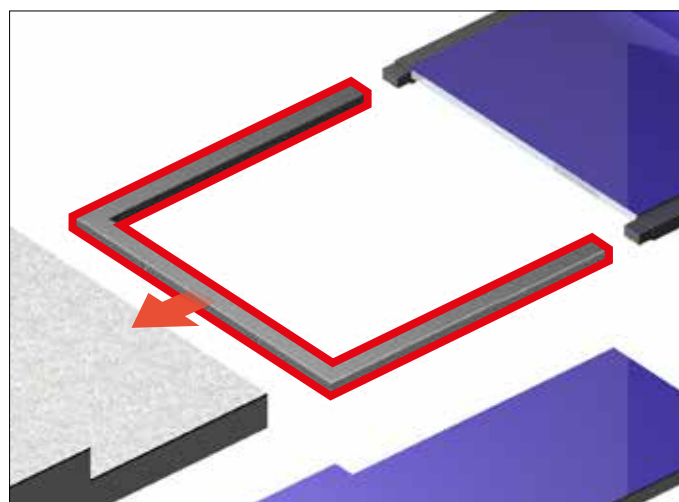
AC1248 FRAME FOR POSTURAL ANALYZER

This component needs to be added to transform a foot analysis laboratory (or even for stabilometric analysis) in a more complete laboratory, which also includes the postural analyzer code 03002 for posture analysis of the whole person. It is therefore applicable to laboratories codes PL0110 or PL0750.

POSTURE ANALYSIS

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Postural labs *System requirements*

GPS 6 software

Our posture analysis laboratories use a modular software called GPS 6 which requires a computer having certain system requirements shown below. We recommend that you do not install other software on your computer to avoid possible conflicts.

SYSTEM REQUIREMENTS

Minimum configuration

Intel Core 2 Duo CPU or higher
4 GB RAM
10 GB of free space
Display with resolution of
1280 x 1024 or higher
USB ports depending on peripherals

Recommended configuration

Intel i3 CPU or higher
8 GB RAM
20 GB of free space
Display with resolution of
1280 x 1024 or higher
USB ports depending on peripherals

Postural labs *System requirements*

01799 POSTURAL DATA STORAGE

The software is pre-installed at our premises with all settings and image acquisition devices configuration for the GPS postural laboratory.

The latest generation computer is applied to a bracket with a hooking system to the work surface. The bracket is standardly supplied with the purchase of the GPS postural laboratory. The 20" screen can therefore be partially rotated, and does not take up space on the working surface.

Furthermore, it can be connected without cables to a large screen to enable patient involvement in seeing what is happening during postural analysis and also for biofeedback situations in case of dynamic and balance analysis.

02104 POSTURAL DATA EVIDENCE

At the end of the analysis, it is essential to be able to provide patients with a session report in order to give a feedback of any improvements noticed. Each posture analysis laboratory is therefore set up, also to accommodate a printer. We suggest an already installed printer, of suitable size for the available space.

AC1249 TV WIRELESS CONNECTION

This connection device allows the person under examination to see the software running on a big screen, for a greater involvement and awareness of one's own posture, and also for biofeedback exercises if the laboratory is configured with a stabilometric platform.

Wi-Fi

POSTURE ANALYSIS

Postural labs *Key services*

GPS 6 software updates

After purchasing a posture analysis laboratory, you will receive the software license that will give you the right of receiving periodically all updates for features improvement, also deriving from suggestions coming from the community of specialists and end users.

An internet connection is required. In particular, software updates can be downloaded automatically with a simple click.

It is possible, however, that some important implementations of system properties could be offered with a fee. In this case, a notice, always within the software, will inform you about this opportunity, and by clicking on you will be able to confirm the interest in getting more information.

Teleservices always available

IIn case of purchasing one of our posture analysis laboratories, a remote technical support service will be included for the installation phase.

In particular during this remote assistance session, our specialist will connect via network to the laboratory to check the software settings and then by guiding the specialist for an overview and understanding of software logic, and its main features.

This service is always active, and can be requested for any need of post-sales technical support during the life-cycle of the laboratory.

You only need to open a request with our Customer Service and schedule a remote assistance session, by writing to **service@chinesport.it** (other countries) and **assistenza@chinesport.it** (for Italy).

DO YOU HAVE AN OLD GPS LABORATORY?

Make us an evaluation request for replacement!

If you have one of our previous laboratory for posture analysis, we offer you the opportunity to give it a value and replace it on favorable terms with a new latest generation laboratory.

In case of interest, a specialized technician could come to replace directly the old system and we will proceed to send a new GPS 6 hardware and software with one session demonstration of all news, for a comfortable start to use.

POSTURE ANALYSIS

Customised orthotics/insoles

As part of an interdisciplinary collaboration, the specialist can suggest the person being examined to contact an orthopedic technician with the visit results in order to make corrective insoles, which can represent a solution in whole or in part.

We have therefore developed in collaboration with a team of experts a method for making orthotics starting precisely from a posture analysis with our laboratories.

The method requires that the insole is made by a qualified technician, not by automated systems. In particular, a first insole can be made in a short time starting from a series of pre-finished materials. For further information or to participate in a specific course, do not hesitate to contact us.

Postural labs *Foot and ankle analysis*

PL0110 RAFFAELLO

The system consists of a structure with platform and two picture acquisition devices for static analysis of subject in mono bi-podalic support, and the attitude of the back-foot. It is therefore possible to acquire images in different moments, save and compare them.

Measurements can be carried out on each acquired picture, and an identification label could be associated on each type of measurement. Measurements can be saved on the picture itself, recalled in a second moment, shown on a patient report, or even exported for processing.

The goal is to give evidence of the foot type and to follow-up if there is a certain postural attitude, not correct or at risk. Following specific interventions, exercises and other corrective actions, may lead to further postural analysis for improvement observance.

At the end of the postural examination it is suggestable to provide a report to the patient with results, even in a comparison of data and pictures acquired in different moments. In particular for all types of measurements the relative tolerance can be reported, with evidence of whether one or more data collected are out of spectrum.

This type of exam is non-invasive, and can therefore be repeated whenever deemed appropriate.

This laboratory for the static analysis of the podalic and back feet support can later be implemented.

In particular it is possible to integrate a dynamic and balance analysis with modifications and additions to the platform, or otherwise as a further addition for a static analysis also of posture of the whole person.

For further information, please check laboratories PL0750, PL0700 and PL0800.

TECHNICAL DATA	
Main power supply	110-240V
Power supply characteristics	50 / 60 Hz
Platform connection to the PC	USB
Person weight information tolerance	± 0,1 kg
GPS 6 software	standard
Usable platform surface (L x P)	40 x 33 cm
Safe working load	200 kg
Overall dimensions	110 x 199,5 x 99 h cm
Medical class device	I

ACCESSORIES			
AC1248	Postural analyzer frame	01799	Postural data storage
03002	Postural analyzer	AC1249	Wireless TV connection
AC1046	Foot positioning adhesive	02104	Postural data evidence
AC0870	Elastic grid kit	AC1246	Blue path 2
AC1247	Background for pictures		

Hardware supplied

Foot picture acquisition platform

Central structure

Safety handrail

Desk with two shelves

PC support bracket

Foot picture device

Device for hindfoot image

Software provided

Static analysis in free mode

Postural labs *Foot and ankle analysis*

MAIN SOFTWARE FEATURES

The main features of the postural laboratory software code PL0110 are presented below in summary form. In addition to the supplied software, it can be purchased an additional module for a static analysis of posture with working predetermined protocols.

Overall performance

- ☑ Patient registry management
- ☑ Personalized medical history questionnaires
- ☑ Diagnosis and therapy card
- ☑ Excel data export
- ☑ Selectable report data

Static analysis

- ☑ Acquisition of foot pictures
- ☑ Acquisition of hind-foot pictures
- ☐ Acquisition Full-body pictures
- ☐ Acquisition Shoulder rotation pictures
- ☐ Measurement free body pictures
- ☑ Free measurement on foot pictures
- ☑ Measurement labeling
- ☑ Reference values for measurements
- ☑ Pictures comparison from different visits

Dynamic analysis and balance

- ☐ Distribution of patient weight on the feet
- ☐ Real gravity center versus ideal one
- ☐ Weight distribution reference values
- ☐ Center of gravity clew
- ☐ Stabilogram
- ☐ Frequency analysis (FFT)
- ☐ Test duration setting
- ☐ Set number of test samples
- ☐ Predetermined test conditions

POSTURE ANALYSIS

Postural labs *Body analysis*

PL0120 GIOTTO

The system consists of a structure with a device for picture acquisition, and a postural analyzer for static analysis on the frontal plane, sagittal plane and for body areas. It is possible to acquire pictures of the subject under examination in different moments, save and compare them.

Measurements can be carried out on each acquired picture, and an identification label could be associated on each type of measurement. Measurements can be saved on the picture itself, recalled in a second moment, shown on a patient report, or even exported for processing.

The goal is to recognize and keep monitored if there is a certain incorrect postural attitude or a risk. Following specific interventions, exercises and other corrective actions, may lead to further postural analysis for improvement observance.

At the end of the postural examination it is suggestable to provide a report to the patient with results, even in a comparison of data and pictures acquired in different moments. In particular for all types of measurements the relative tolerance can be reported, with evidence of whether one or more data collected are out of spectrum.

This type of exam is non-invasive, and can therefore be repeated whenever deemed appropriate.

This laboratory for the static analysis of a person posture can be later implemented with the addition of a platform and another structure for the static analysis also of the podalic support, and possibly for dynamic and balance analysis.

For further information, check the PL0700 and PL0800 laboratories.

TECHNICAL DATA	
Main power supply	110-240V
Power supply characteristics	50 / 60 Hz
Person weight information tolerance	± 0,1 kg
GPS 6 software	standard
Postural analyzer dimensions	60 x 66 x 220 h cm
Maximum patient height	207 cm
Safe working load	200 kg
Overall dimensions	110 x 267,5 x 225 h cm
Medical class device	I

Hardware supplied

Postural analyzer

Conjunction set

Desk with two shelves

PC support bracket

Posture imaging device

Software provided

Static analysis in free mode

ACCESSORIES			
AC1046	Foot positioning adhesive	01799	Postural data storage
AC0870	Elastic grid kit	AC1249	Wireless TV connection
AC1247	Background for pictures	02104	Postural data evidence

Postural labs *Body analysis*

MAIN SOFTWARE FEATURES

The main features of the postural laboratory software code PL0120 are presented below in summary form. In addition to the supplied software, it can be purchased an additional module for a static analysis of posture with working predetermined protocols.

Overall performance

- ☑ Patient registry management
- ☑ Personalized medical history questionnaires
- ☑ Diagnosis and therapy card
- ☑ Excel data export
- ☑ Selectable report data

Static analysis

- ☐ Acquisition of foot pictures
- ☑ Acquisition of hind-foot pictures
- ☑ Acquisition Full-body pictures
- ☑ Acquisition Shoulder rotation pictures
- ☑ Measurement free body pictures
- ☐ Free measurement on foot pictures
- ☑ Measurement labeling
- ☑ Reference values for measurements
- ☑ Pictures comparison from different visits

Dynamic analysis and balance

- ☐ Distribution of patient weight on the feet
- ☐ Real gravity center versus ideal one
- ☐ Weight distribution reference values
- ☐ Center of gravity clew
- ☐ Stabilogram
- ☐ Frequency analysis (FFT)
- ☐ Test duration setting
- ☐ Set number of test samples
- ☐ Predetermined test conditions

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POSTURE ANALYSIS

Postural labs *Total posture scanner*

PL0700 MICHELANGELO

The system consists of a central structure with a platform, a postural analyzer and three pictures acquisition devices for static analysis on the frontal and sagittal plane, as well as of the bi-podalic support and the attitude of the back feet.

It is therefore possible to acquire pictures of the subject under examination in different moments, save them and compare them.

Measurements can be carried out on each acquired picture, and an identification label could be associated on each type of measurement. Measurements can be saved on the picture itself, recalled in a second moment, shown on a patient report, or even exported for processing.

The goal is prevention trough the observation of an incorrect postural attitude and the search of possible disorder causes, of a patient under examination pain. All information collected by the two systems

can therefore be useful for defining therapeutic interventions, targeted exercise programs and other corrective actions, also in an interdisciplinary collaboration between specialists.

At the end of the postural examination it is suggestable to provide a report to the patient with results, even in a comparison of data and pictures acquired in different moments. In particular for all types of measurements the relative tolerance can be reported, with evidence of whether one or more data collected are out of spectrum.

This type of exam is non-invasive, and can therefore be repeated whenever deemed appropriate.

This laboratory for the static analysis of a person posture can be later implemented to allow dynamic and balance analysis. In this case platform needs modifications and additions.

For further information, check laboratories PL0750 and PL0800.

TECHNICAL DATA	
Main power supply	110-240V
Power supply characteristics	50 / 60 Hz
Platform connection to the PC	USB
Person weight information tolerance	± 0,1 kg
GPS 6 software	standard
Usable platform surface (L x P)	40 x 33 cm
Postural analyzer dimensions	60 x 66 x 220 h cm
Maximum patient height	207 cm
Safe working load	200 kg
Overall dimensions	110 x 267,5 x 225 h cm
Medical class device	I

ACCESSORIES			
AC1046	Foot positioning adhesive	01799	Postural data storage
AC0870	Elastic grid kit	AC1249	Wireless TV connection
AC1247	Background for pictures	02104	Postural data evidence
		AC1245	Blue path 1

Hardware supplied

Foot picture acquisition platform

Central structure

Safety handrail

Postural analyzer

Desk with two shelves

PC support bracket

Foot picture device

Device for hindfoot picture

Posture picture device

Software provided

Static analysis in free mode

Postural labs *Total posture scanner*

MAIN SOFTWARE FEATURES

The main features of the postural laboratory software code PL0700 are presented below in summary form. In addition to the supplied software, it can be purchased an additional module for a static analysis of posture with working predetermined protocols.

Overall performance

- ☑ Patient registry management
- ☑ Personalized medical history questionnaires
- ☑ Diagnosis and therapy card
- ☑ Excel data export
- ☑ Selectable report data

Static analysis

- ☑ Acquisition of foot pictures
- ☑ Acquisition of hind-foot pictures
- ☑ Acquisition Full-body pictures
- ☑ Acquisition Shoulder rotation pictures
- ☑ Measurement free body pictures
- ☑ Free measurement on foot pictures
- ☑ Measurement labeling
- ☑ Reference values for measurements
- ☑ Pictures comparison from different visits

Dynamic analysis and balance

- ☐ Distribution of patient weight on the feet
- ☐ Real gravity center versus ideal one
- ☐ Weight distribution reference values
- ☐ Center of gravity clew
- ☐ Stabilogram
- ☐ Frequency analysis (FFT)
- ☐ Test duration setting
- ☐ Set number of test samples
- ☐ Predetermined test conditions

Postural labs *Posture control analysis*

PL0750 DONATELLO

The system consists of a structure with an original stabilometric platform for dynamic and balance analysis as well as two image acquisition devices for the static analysis of the subject in mono bi-podalic support, and the attitude of the back-feet. It is therefore possible to acquire pictures of the subject under examination in different moments, save them and compare them, and measurements can be carried out on each acquired picture.

The stabilometric platform with six load cells, however, allows the patient to a free and natural positioning to detect first of all the body weight, its distribution between the right foot and the left one, and for each foot the distribution also on the three points of reference, the first metatarsal, the fifth metatarsal and heel.

While the person is on the platform, it is also identified the center of gravity and its position compared to the ideal one, as well as the oscillations on the different planes. The possibility to set the duration of the dynamic tests also allows to involve the patient in biofeedback exercises.

The goal is to give evidence of the type of foot and to keep monitored if there is a certain incorrect postural attitude or risk. All information collected by the two integrated static and dynamic analysis systems can be useful to define therapeutic interventions, targeted exercise programs and others corrective actions, also in an interdisciplinary collaboration between specialists.

At the end of the postural examination it is suggestable to provide patient with a report showing results, also in a comparison of data, graphs, and pictures acquired in different moments.

In particular for all types of measurements the relative tolerance can be reported, with evidence of whether one or more data collected are out of spectrum. This type of exam is non-invasive, and can therefore be repeated whenever deemed appropriate.

This laboratory for the static analysis of podalic support and back feet, as well as dynamic and balance analysis, can be later integrated to allow static analysis of posture of the whole person. For further information, see the laboratories PL0120 and PL0800.

POSTURE ANALYSIS

TECHNICAL DATA	
Main power supply	110-240V
Power supply characteristics	50 / 60 Hz
Platform connection to the PC	USB
Person weight information tolerance	± 0,1 kg
GPS 6 software	standard
Usable platform surface (L x P)	40 x 33 cm
Safe working load	200 kg
Overall dimensions	110 x 199,5 x 99 h cm
Medical class device	I

ACCESSORIES			
AC1248	Postural analyzer frame	01799	Postural data storage
03002	Postural analyzer	AC1249	Wireless TV connection
AC1046	Foot positioning adhesive	02104	Postural data evidence
AC0870	Elastic grid kit	AC1246	Blue path 2
AC1247	Background for pictures		

Hardware supplied

Six-cell stabilometric platform

Foot picture acquisition platform

Central structure

Safety handrail

Desk with two shelves

PC support bracket

Foot picture device

Device for hindfoot picture

Software provided

Static analysis in free mode

Dynamic and balance analysis

Postural labs *Posture control analysis*

MAIN SOFTWARE FEATURES

The main features of the postural laboratory software code PL0750 are presented below in summary form. In addition to the supplied software, it can be purchased an additional module for a static analysis of posture with working predetermined protocols.

Overall performance

☑ Patient registry management

☑ Personalized medical history questionnaires

☑ Diagnosis and therapy card

☑ Excel data export

☑ Selectable report data

Static analysis

☑ Acquisition of foot pictures

☑ Acquisition of hind-foot pictures

☐ Acquisition Full-body pictures

☐ Acquisition Shoulder rotation pictures

☐ Measurement free body pictures

☑ Free measurement on foot pictures

☑ Measurement labeling

☑ Reference values for measurements

☑ Pictures comparison from different visits

Dynamic analysis and balance

☑ Distribution of patient weight on the feet

☑ Real gravity center versus ideal one

☑ Weight distribution reference values

☑ Center of gravity clew

☑ Stabilogram

☑ Frequency analysis (FFT)

☑ Test duration setting

☑ Set number of test samples

☑ Predetermined test conditions

Postural labs *Global posture analysis*

PL0800 LEONARDO

The system consists of a central structure with platform, a postural analyzer and three picture acquisition devices for a static analysis on the frontal plane, sagittal plane, of the podalic support and back foot, as well as for a dynamic analysis and balance.

It is therefore possible to acquire images in different moments, save and compare them. Measurements can be carried out on each acquired picture, and an identification label could be associated on each type of measurement. Measurements can be saved on the picture itself, recalled in a second moment, shown on a patient report, or even exported for processing.

The stabilometric platform with six load cells, however, allows the patient to a free and natural positioning to detect first of all the body weight, its distribution between the right foot and the left one, and for each foot the distribution also on the three points of reference, the first metatarsal, the fifth metatarsal and heel.

While the person is on the platform, it is also identified the center of gravity and its position compared to the ideal one, as well as the oscillations on the different planes. The possibility to set the duration of the dynamic tests also allows to involve the patient in biofeedback exercises.

The goal is to give evidence of the type of foot and to keep monitored if there is a certain incorrect postural attitude or risk. All information collected by the two integrated static and dynamic analysis systems can be useful to define therapeutic interventions, targeted exercise programs and others corrective actions, also in an interdisciplinary collaboration between specialists.

At the end of the postural examination it is suggestable to provide patient with a report showing results, also in a comparison of data, graphs, and pictures acquired in different moments. In particular for all types of measurements the relative tolerance can be reported, with evidence of whether one or more data collected are out of spectrum. This type of exam is non-invasive, and can therefore be repeated whenever deemed.

TECHNICAL DATA	
Main power supply	110-240V
Power supply characteristics	50 / 60 Hz
Platform connection to the PC	USB
Person weight information tolerance	± 0,1 kg
GPS 6 software	standard
Usable platform surface (L x P)	40 x 33 cm
Postural analyzer dimensions	60 x 66 x 220 h cm
Maximum patient height	207 cm
Safe working load	200 kg
Overall dimensions	110 x 267,5 x 225 h cm
Medical class device	I

ACCESSORIES			
AC1046	Foot positioning adhesive	01799	Postural data storage
AC0870	Elastic grid kit	AC1249	Wireless TV connection
AC1247	Background for pictures	02104	Postural data evidence
		AC1245	Blue path 1

Hardware supplied

Six-cell stabilometric platform

Foot picture acquisition platform

Central structure

Safety handrail

Postural analyzer

Desk with two shelves

PC support bracket

Foot picture device

Device for hindfoot picture

Posture picture device

Software provided

Static analysis in free mode

Dynamic and balance analysis

Postural labs *Global posture analysis*

MAIN SOFTWARE FEATURES

The main features of the postural laboratory software code PL0800 are presented below in summary form. In addition to the supplied software, it can be purchased an additional module for a static analysis of posture with working predetermined protocols.

Overall performance

☑ Patient registry management

☑ Personalized medical history questionnaires

☑ Diagnosis and therapy card

☑ Excel data export

☑ Selectable report data

Static analysis

☑ Acquisition of foot pictures

☑ Acquisition of hind-foot pictures

☑ Acquisition Full-body pictures

☑ Acquisition Shoulder rotation pictures

☑ Measurement free body pictures

☑ Free measurement on foot pictures

☑ Measurement labeling

☑ Reference values for measurements

☑ Pictures comparison from different visits

Dynamic analysis and balance

☑ Distribution of patient weight on the feet

☑ Real gravity center versus ideal one

☑ Weight distribution reference values

☑ Center of gravity clew

☑ Stabilogram

☑ Frequency analysis (FFT)

☑ Test duration setting

☑ Set number of test samples

☑ Predetermined test conditions

GPS software *Static posture assessment - Part I*

The software module supplied with our laboratories for static analysis of posture provides the possibility of acquiring feet, hind-feet and whole body images, depending on chosen configuration, and to perform measurements in free mode.

Entrance screenshot

When the software is started, an entrance screen shot allows you to proceed immediately with a new examination session for the static or stabilometric analysis and postural control part.
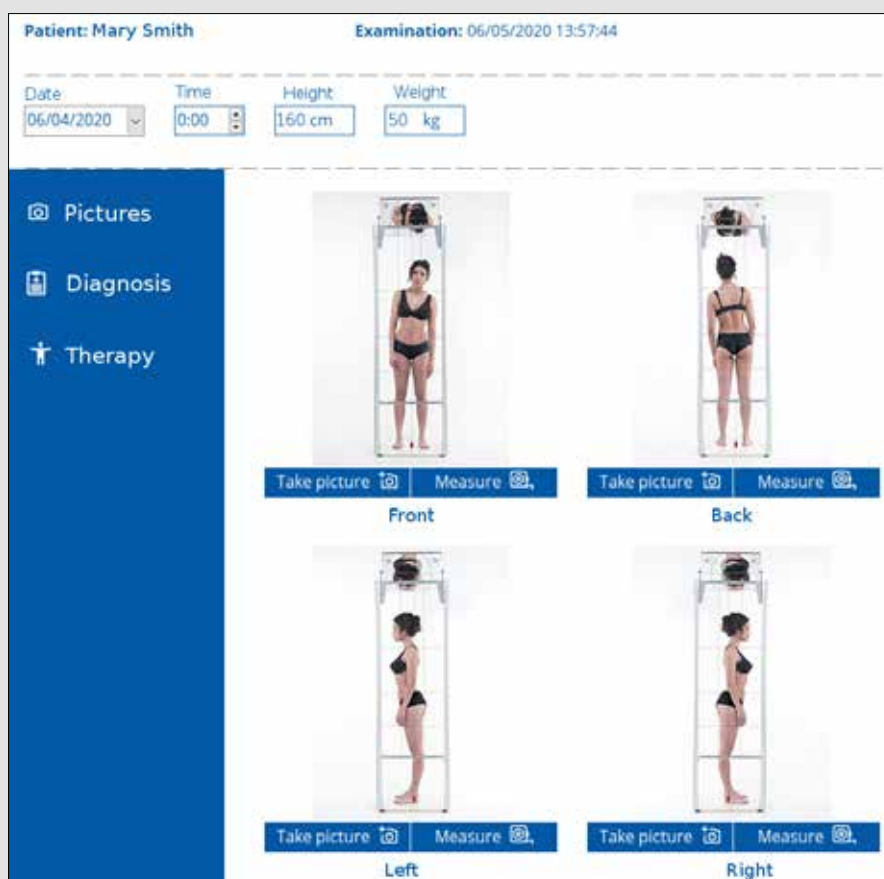
From the same screen there is the possibility of quick access to the database of patients and exams previously carried out, as well as all work settings and customizations, including the choice of language among those pre-loaded and available.
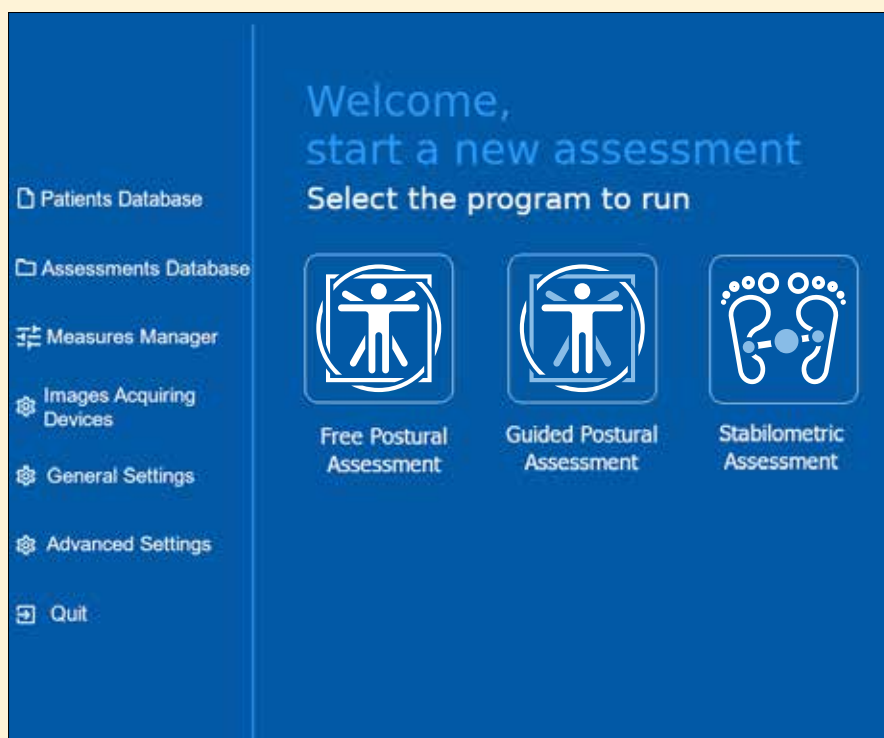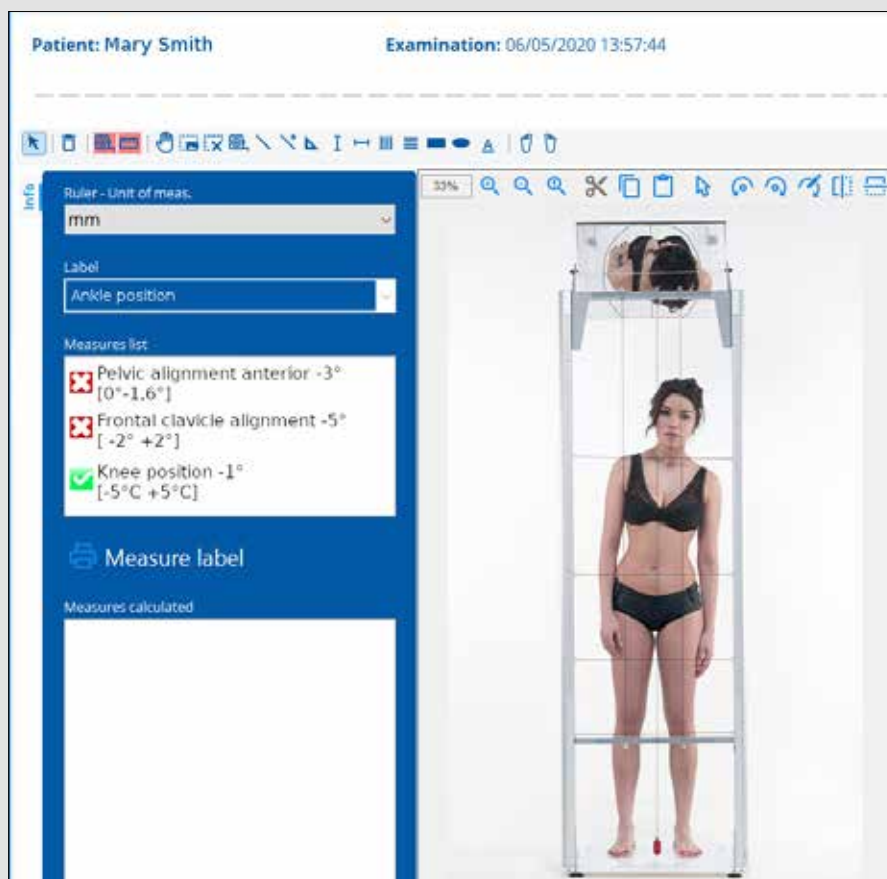

Examination management

When the image acquisition devices are set, you can proceed to an examination session by inviting the person to position himself where required on the postural laboratory. All the images acquired in sequence become available, therefore, in a single visit control and management screen.

This phase of collecting images of the person's posture can take only few minutes, and the measurement and evaluation phase it can also be later. From this screen it is also possible to recall the patient data, the annotations, the registered and ongoing therapy programs.

Patient: Mary Smith   Examination: 06/05/2020 13:57:44

Ruler - Unit of meas.
mm

Label
Ankle position

Measures list
- ❌ Pelvic alignment anterior -3° [0°-1.6°]
- ❌ Frontal clavicle alignment -5° [-2° +2°]
- ✅ Knee position -1° [-5°C +5°C]
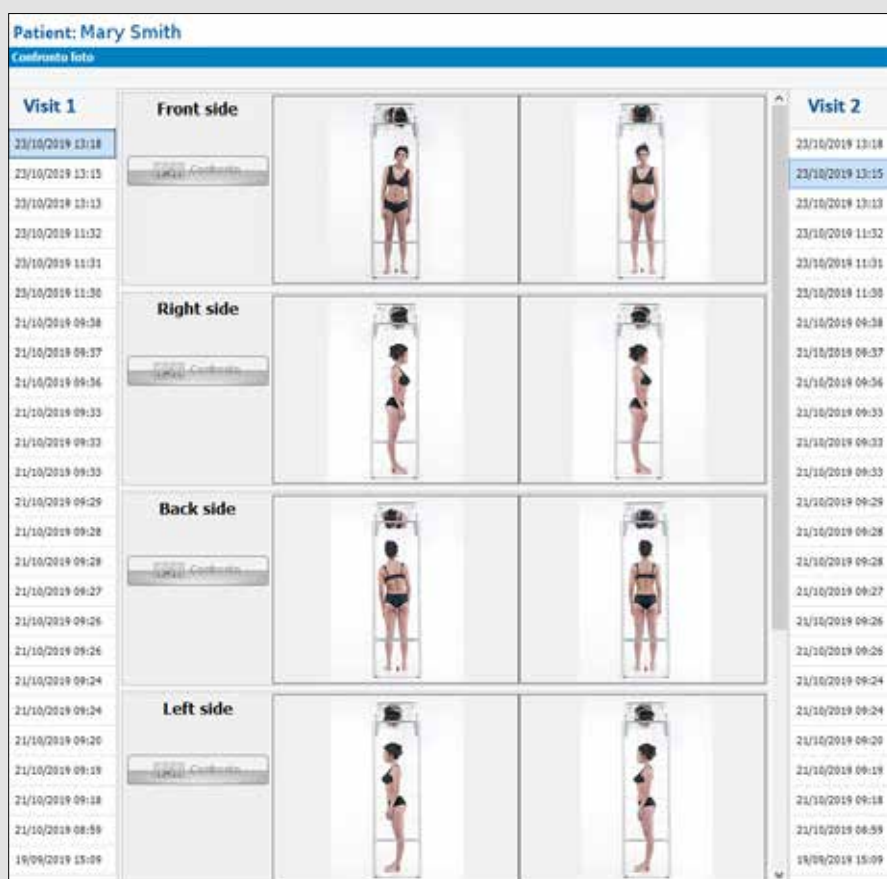
🖨 Measure label

Measures calculated

Measurements on images

You can first set reference values for each measurement to be performed on the acquired images. The software then indicates if the specific value is outside the tolerance spectrum.

Each measurement on the images can then be identified with a so-called "Label", which therefore also allows comparisons of similar data acquired at different times.

Linear and angular measurements can be made, and vertical and horizontal reference lines on the acquired images can be reproduced in a virtual way. All data can be exported to Excel files for processing, studies and research even on large samples.

Patient: Mary Smith
Confronto foto

Visit 1			Visit 2
23/10/2019 13:18	Front side		23/10/2019 13:18
23/10/2019 13:15			23/10/2019 13:15
23/10/2019 13:13			23/10/2019 13:13
23/10/2019 11:32			23/10/2019 11:32
23/10/2019 11:31			23/10/2019 11:31
23/10/2019 11:30	Right side		23/10/2019 11:30
21/10/2019 09:38			21/10/2019 09:38
21/10/2019 09:37			21/10/2019 09:37
21/10/2019 09:36			21/10/2019 09:36
21/10/2019 09:33			21/10/2019 09:33
21/10/2019 09:33			21/10/2019 09:33
21/10/2019 09:33	Back side		21/10/2019 09:33
21/10/2019 09:29			21/10/2019 09:29
21/10/2019 09:28			21/10/2019 09:28
21/10/2019 09:28			21/10/2019 09:28
21/10/2019 09:27			21/10/2019 09:27
21/10/2019 09:26			21/10/2019 09:26
21/10/2019 09:26	Left side		21/10/2019 09:26
21/10/2019 09:24			21/10/2019 09:24
21/10/2019 09:20			21/10/2019 09:20
21/10/2019 09:19			21/10/2019 09:19
21/10/2019 09:18			21/10/2019 09:18
21/10/2019 08:59			21/10/2019 08:59
19/09/2019 15:09			19/09/2019 15:09

Images comparison

From the storage of all the tests carried out prior for the same patient, images of the same type acquired on different dates for comparison can be recalled.

This comparison of images can already allow, at a first level, an evaluation of the changes occurred in the person's posture, and of any improvements deriving from a postural re-education program, therapeutic treatments and / or more generally from corrective actions implemented.

The images comparison can be reported in the report to be delivered to the patient together with the quantitative data.

POSTURE ANALYSIS

Preliminary assessments

In the guided mode version of the software, a series of preliminary actions and assessments are proposed to contribute to a better definition of the initial anamnesis.

A list of twenty-six points for actions to be performed and data to be acquired, even with specific basic tools, it is therefore proposed in a sort of work protocol experimented in the field by various specialists.

This approach proposal does not exclude the possibility of integrating the cited list with further points and specific preliminary investigation in this important phase of defining the clinical picture of entry.

Guided Postural Assessment

Accessory assessments assist the clinician in otaining m
The recomended assessments in this section will broade

| Assessment	Help
Leg length, anatomical	Measure the anatomical leg length with th The anatomical leg length difference is mea normal up to 20mm. However many studies
Leg length, absolute	Measure the absolute length with the pati malleolus.
Leg length, relative	Measure the relative leg length with the pa
Lower spine mobility	Lower spine mobility is an important factor mobility. Follow these steps: 1. Patient sands erect with feet approximat 2. Mark the posterior superior iliac spines (3. Mark the spinous process on the imagina 4. Make another mark on the spinous proc 5. Align a tape measure between the two m 6. Ask the patient to bend forward, withou mobility, older people will be less flexible. 7. Repeat the same for lumbar extension. 2
Thoracic spin mobility	Thoracic spine mobility is an important fact

Application of markers

To make measurements on the acquired images of the whole person for an examination of his posture in a static situation, the positioning of the so-called "Markers" or use another method to highlight the "landmarks" or reference points is propaedeutic to then take measurements and check alignments at the various levels and body districts.

In the software version in guided mode, therefore, a series of landmarks where to apply the "markers" on the person's body is already proposed.

A screen performs a mapping function and a sequential checklist for the performed application.

16
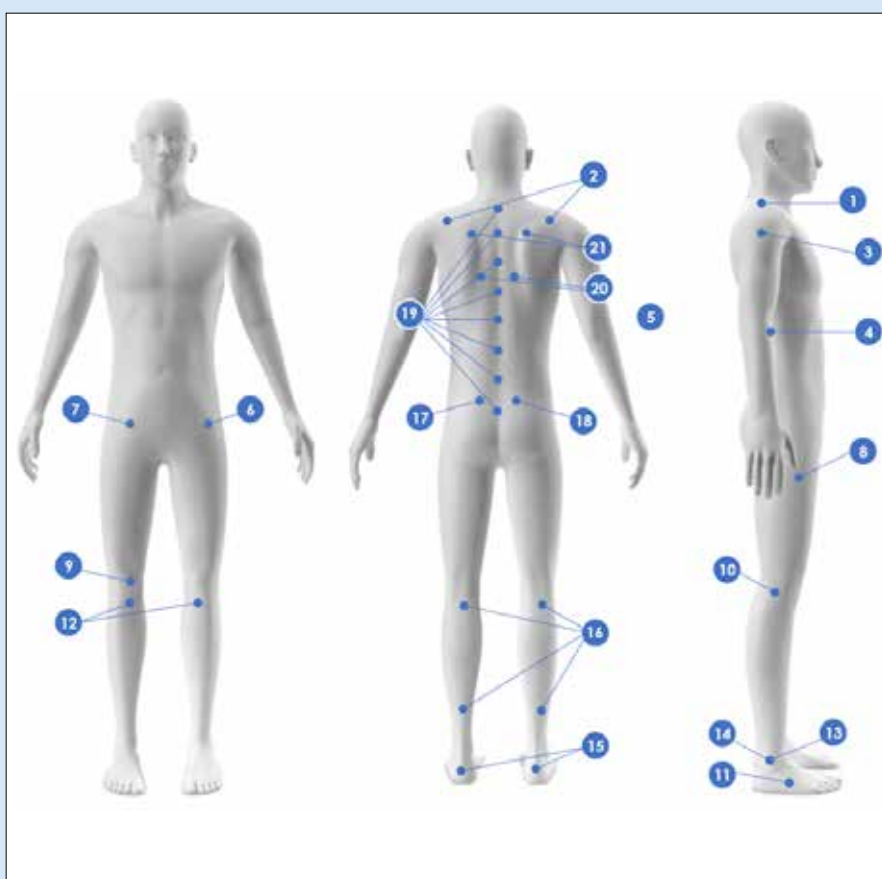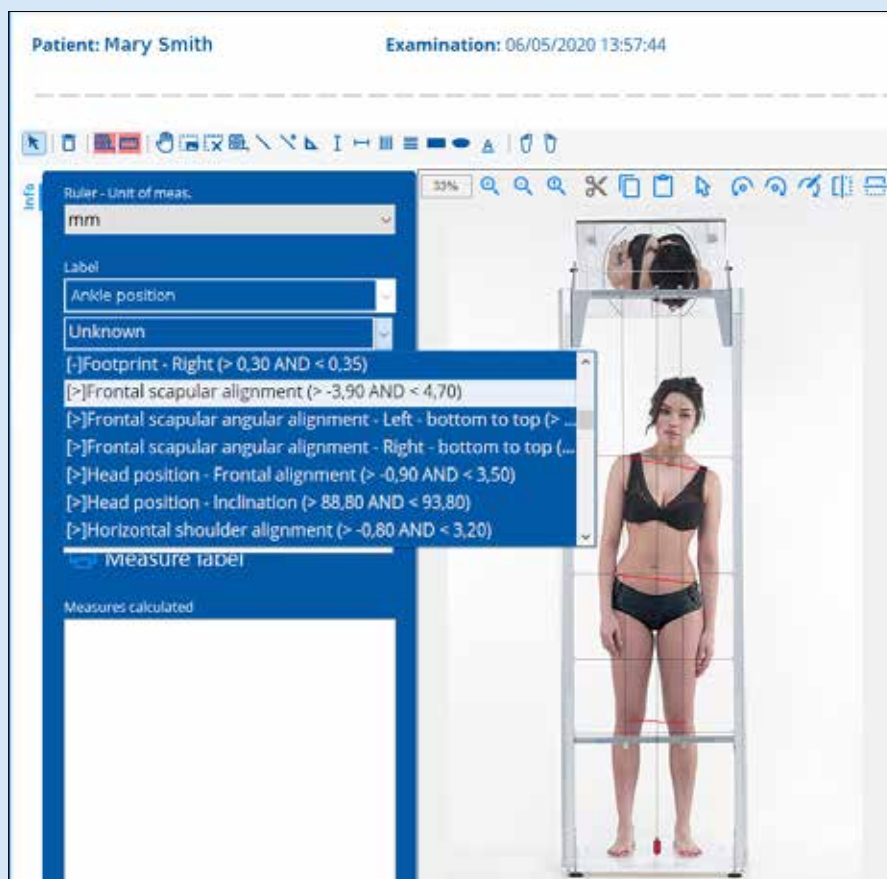
Proposed measures

You can proceed with the acquisition of the images of the person in the already predetermined positions, and with a series of measurements that are also proposed in sequence with their meaning.

For each type of measurement there is a pre-set tolerance window and automatic highlighting of the data if out of the spectrum acceptability.

All this information can be included in the report for the patient with the therapeutic proposal by the specialist.

Request a demo version of the GPS 6 software

Upon request is possible to test our software for posture analyses in order to verify if it can meet centers or specialist specific needs and expectations. It is therefore possible to request a demo version with remote access for local use. The applicant will receive a temporary use license key with an expiration date.

Our posture analysis laboratories use software called GPS 6. It is an advanced software of new generation and intuitive to use. A "Guideline" allows you to call up the instructions from any screen to facilitate the navigation, and in particular for understanding the features available in that moment.

This software is the result of all reports collected in recent years in order to make it more efficient and adaptive to the different needs of the different specialists. In case of demo version some functions of the software cannot be used for lack of connection with the specific hardware. For this reason Demo visits and preloaded images will also be available in this version in order to check some obtainable results, and also to be able to use all the available measurement tools.

You can create a new patient record, recall and manage all visit data, create a questionnaire for an entrance history, compare data and pictures, experiment different formats for a patient report, export data to Excel for processing etc.

POSTURE ANALYSIS

# GPS software *Posture control analysis - Part III*

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.

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 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 proportionally 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.
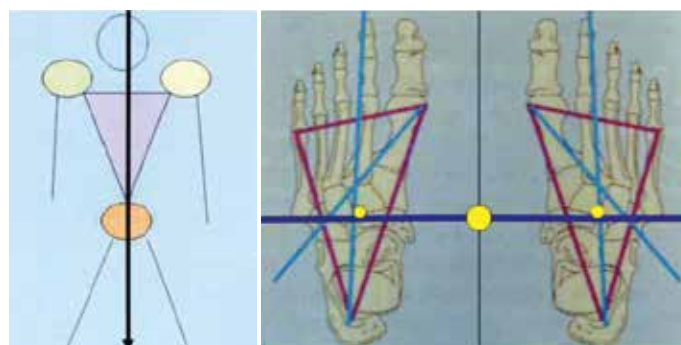
The importance of foot

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.
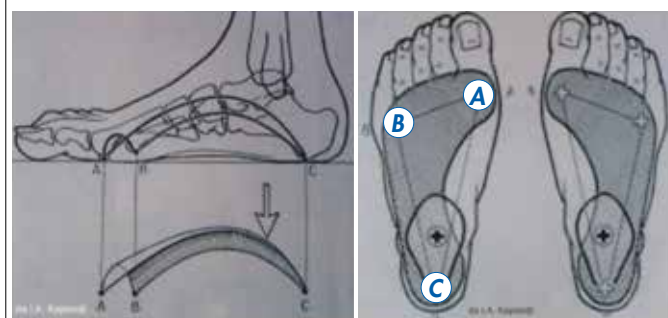
Measurement repeatability

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.

| Patient weight	91,52 kg			
WEIGHT ANALYSIS				
		Left		Right
Total	46,00 kg	50,0%	45,52 kg	50,0%
1st metatarsus	11,76 kg	26,0%	14,80 kg	33,0%
5th metatarsus	12,85 kg	28,0%	9,99 kg	22,0%
Heel	21,40 kg	47,0%	20,73 kg	46,0%
ANALYSIS RESULTS				
Distance from real barycentre			1 mm	
Distance from real barycentre (X)			1 mm	
Distance from real barycentre (Y)			1 mm	
Curve length			14 mm	
Confidence ellipse area			79 mm²	
Angular deviation			359°	
EXAMINATION DATA				
Condition			Eyes open	
Samples			105	
Duration			21s	
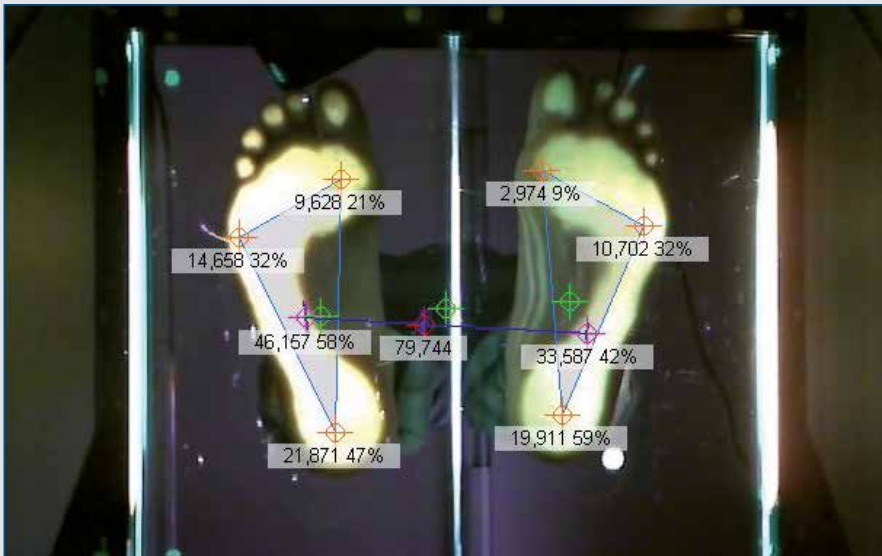
Body weight distribution

Two expected levels of deviance from the set range of acceptability come to be highlighted
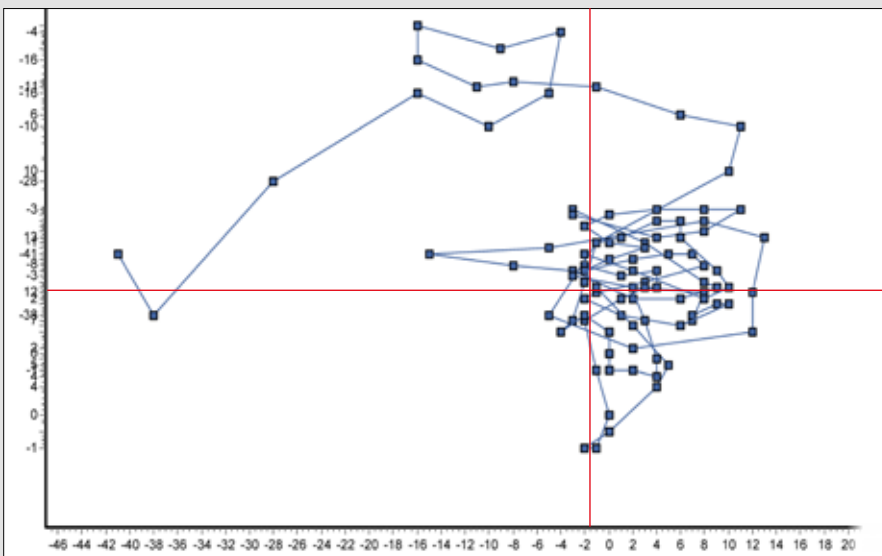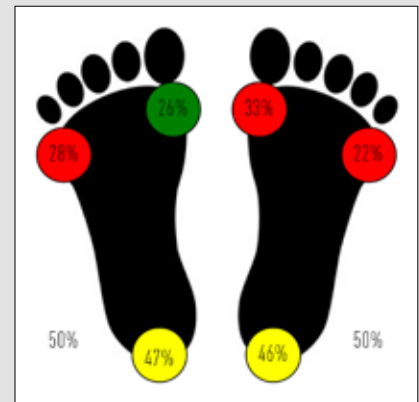
Sway analysis

Representation of the variations of the center of gravity in the set test and duration conditions.
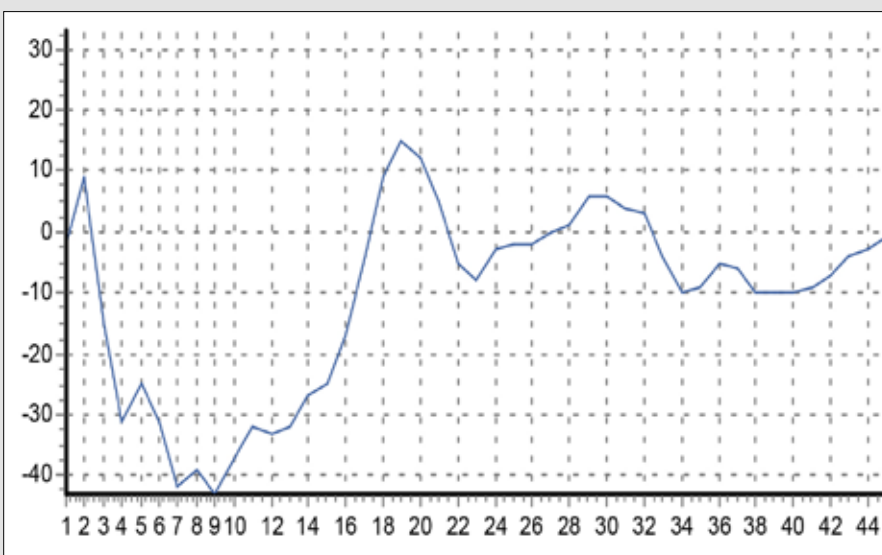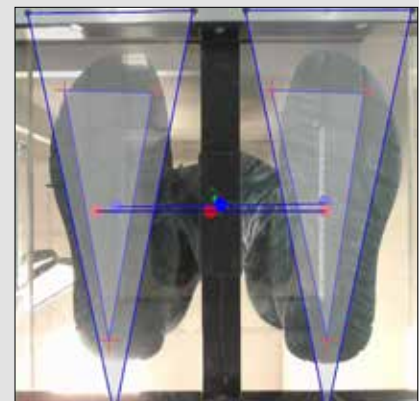
Stabilogram

For antero-posterior and lateral oscillations with freedom to set the acquisition time.

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POSTURE ANALYSIS

Technical data *Software properties*

MODELS	PL0110	PL0120	PL0700	PL0750	PL0800
BASIC SOFTWARE PERFORMANCE					
Patient registry management	•	•	•	•	•
Personalized medical history questionnaires	•	•	•	•	•
Diagnosis and therapy sheet	•	•	•	•	•
Excel data export	•	•	•	•	•
Selectable report data	•	•	•	•	•
STATIC POSTURE ANALYSIS					
Pedal support picture acquisition	•		•	•	•
Full-length picture acquisition		•	•		•
Picture acquisition for evaluation of shoulder rotation		•	•		•
Free measurement on body pictures	•		•	•	•
Free measurement on foot pictures		•	•		•
Measurement labeling	•	•	•	•	•
Setting reference values for measurements	•	•	•	•	•
Comparison of pictures acquired in different visits	•	•	•	•	•
Static analysis in guided mode	optional	optional	optional		optional
STABILOMETRIC ANALYSIS					
Distribution of patient weight on foot support				•	•
Real center of gravity deviation from the ideal one				•	•
Setting reference values for weight distribution				•	•
COP representation				•	•
Stabilogram				•	•
Frequency analysis (FFT)				•	•
Setting the duration of values acquisition				•	•
Setting samples nr. to be acquired in time units				•	•
Exam in different predetermined test conditions				•	•

POSTURE ANALYSIS

MODELS	PL0110	PL0120	PL0700	PL0750	PL0800
HARDWARE SUPPLIED					
Six-cell stabilometric platform	-	-	-	•	•
Foot picture acquisition platform	•	-	•	•	•
Central structure	Raised	Junction kit	Raised	Raised	Raised
Safety handrail	•	-	•	•	•
Postural analyzer	-	•	•	-	•
Connection set	-	•	-	-	-
Desk with two shelves	•	•	•	•	•
PC support bracket	•	•	•	•	•
Foot imaging device	•	-	•	•	•
Hindfoot picture device	•	-	•	•	•
Posture imaging device	-	•	•	-	•
SOFTWARE PROVIDED					
Static analysis in free mode	•	•	•	•	•
Dynamic and balance analysis	-	-	-	•	•
TECHNICAL FEATURES					
Main power supply	110-240V	110-240V	110-240V	110-240V	110-240V
Power supply characteristics	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Platform connection to the PC	USB	-	USB	USB	USB
Person weight information tolerance	± 0,1 kg	± 0,1 kg	± 0,1 kg	± 0,1 kg	± 0,1 kg
GPS 6 software	•	•	•	•	•
Usable platform surface (L x P)	40 x 33 cm	-	40 x 33 cm	40 x 33 cm	40 x 33 cm
Postural analyzer dimensions	-	60 x 66 x 220 h cm	60 x 66 x 220 h cm	-	60 x 66 x 220 h cm
Maximum patient height	-	207 cm	207 cm	-	207 cm
Safe working load	200 kg	200 kg	200 kg	200 kg	200 kg
Laboratory width	110 cm	110 cm	110 cm	110 cm	110 cm
Laboratory length	199,5 cm	267,5 cm	267,5 cm	199,5 cm	267,5 cm
Laboratory height	99 cm	225 cm	225 cm	99 cm	225 cm
Medical class device	I	I	I	I	I
ACCESSORIES					
AC1245 Blue path 1	-	-	•	-	•
AC1246 Blue path 2	•	-	-	•	-
AC1248 Postural analyzer frame	•	standard	standard	•	standard
03002 Postural analyzer	with AC1248	standard	standard	with AC1248	standard
AC1247 Background for pictures	with AC1248	•	•	with AC1248	•
AC0870 Elastic grid kit	with 03002	•	•	with 03002	•
AC1046 Foot positioning adhesive	with 03002	•	•	with 03002	•
01799 Postural data storage	•	•	•	•	•
AC1249 Wireless TV connection	•	•	•	•	•
02104 Postural data evidence	•	•	•	•	•

Technical data *Main dimensions*

Our posture analysis laboratories have also been designed to fit into the available space or to the specific needs of the environment organization where it must be installed. Traditionally the postural laboratory can be placed in a medical clinic, or in a dedicated room or even in a rehabilitation gym.

They are composed of modules that can be easily assembled even by the end user in a short time. It is created therefore a single structure, stable and based on the floor without being attached to it. This structure has a non-slip upholstery and is developed vertically with access to steps from both short sides.

During the installation phase, first of all, the desk can be assembled to the right or left of the central laboratory structure, depending on preference for the access side to be reserved for the patient.

In addition, the desk is compact and optimized in size to be less bulky as possible with computer mounted on a provided bracket.

This flexibility can therefore allow the laboratory to be positioned along opposite walls and also towards a corner. The laboratory occupies a minimum width of 110 cm.

If the laboratory is also intended for a static analysis of posture of the entire person, the minimum overall length or depth goes from 199.5 to 267.5 cm. This length is also the necessary distance between the picture acquisition device and the postural analyzer as an indispensable requirement of the system.

It is then possible to add, if there is space enough for accessory modules - which are the neutral background for the pictures acquisition, the blue walking path for the patient without shoes. In this case the total size becomes 160 cm in width and 335.5 cm in length.

DIMENSIONS
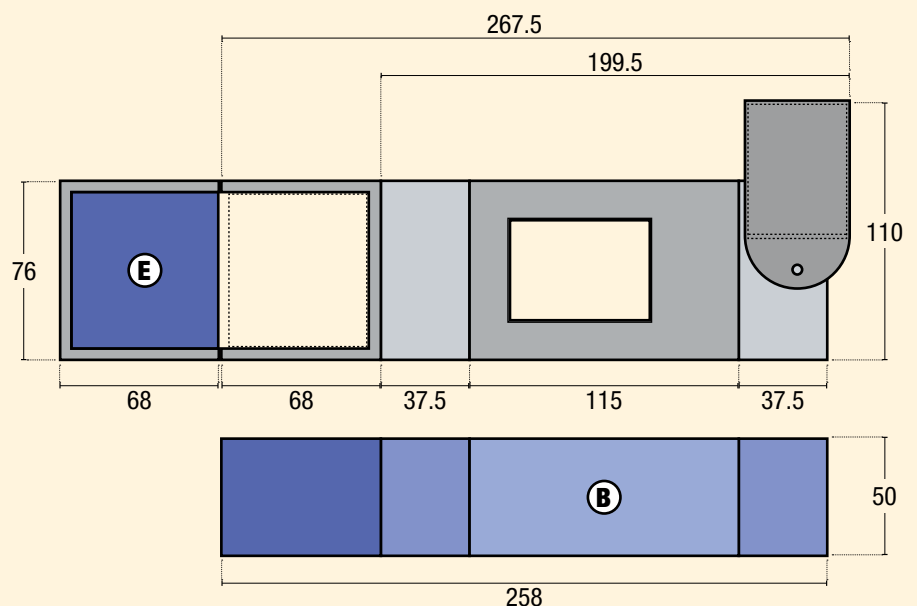
All the dimensions are expressed in cm.

Technical data *Main dimensions*

16

225 cm

110 cm

335.5 cm
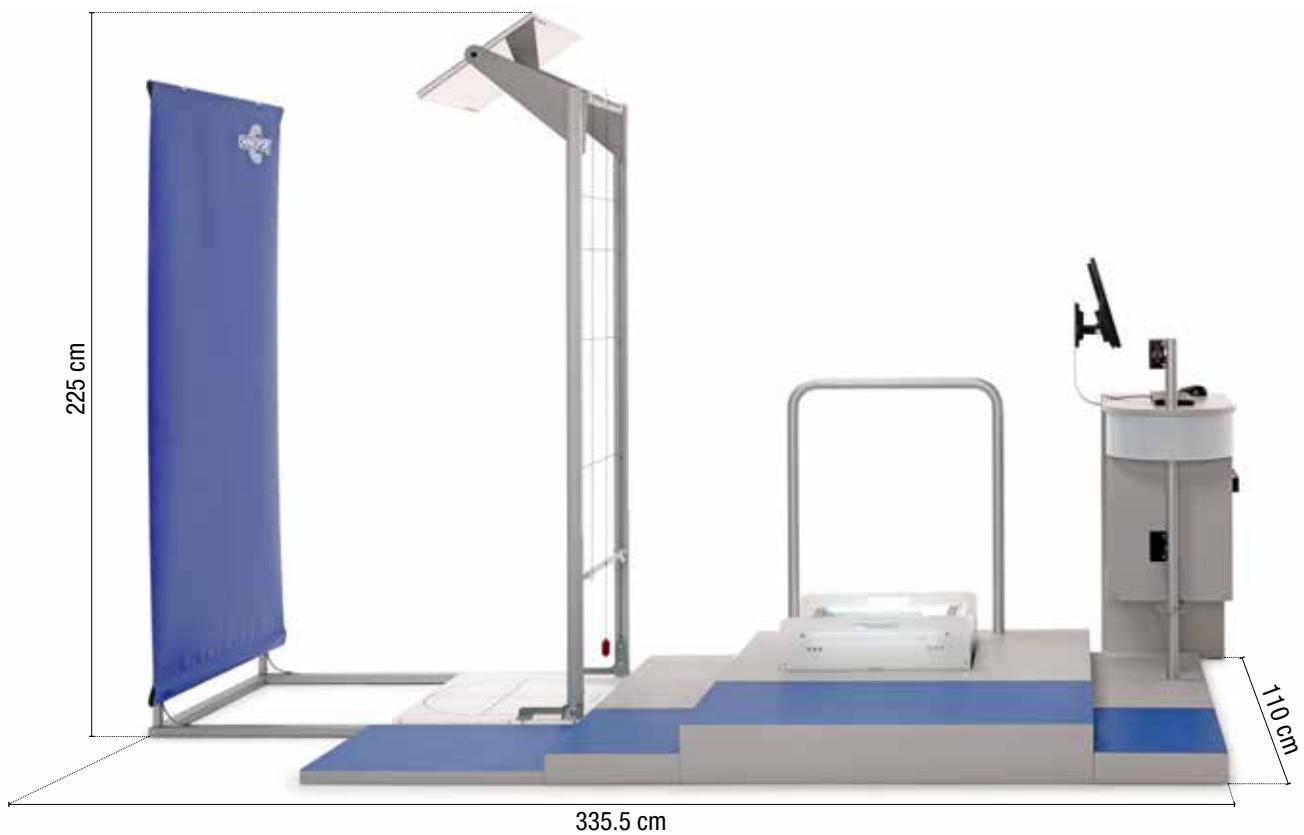
POSTURE ANALYSIS

Room design service

The inclusion of a posture analysis laboratory in a professional environment can determine the need for some adaptation or reorganization of pre-existing furnishings, or it can still fit into a new opening studio project.

In that case you can contact us for a study of design. Our specialists will also be able to design you a studio with custom-made harmonized furnishings with the design of a purchased laboratory.

POSTURE ANALYSIS

E2

F

F2

E

C4

C5

E1

F1

C3

E3

B

B4

B2

B1
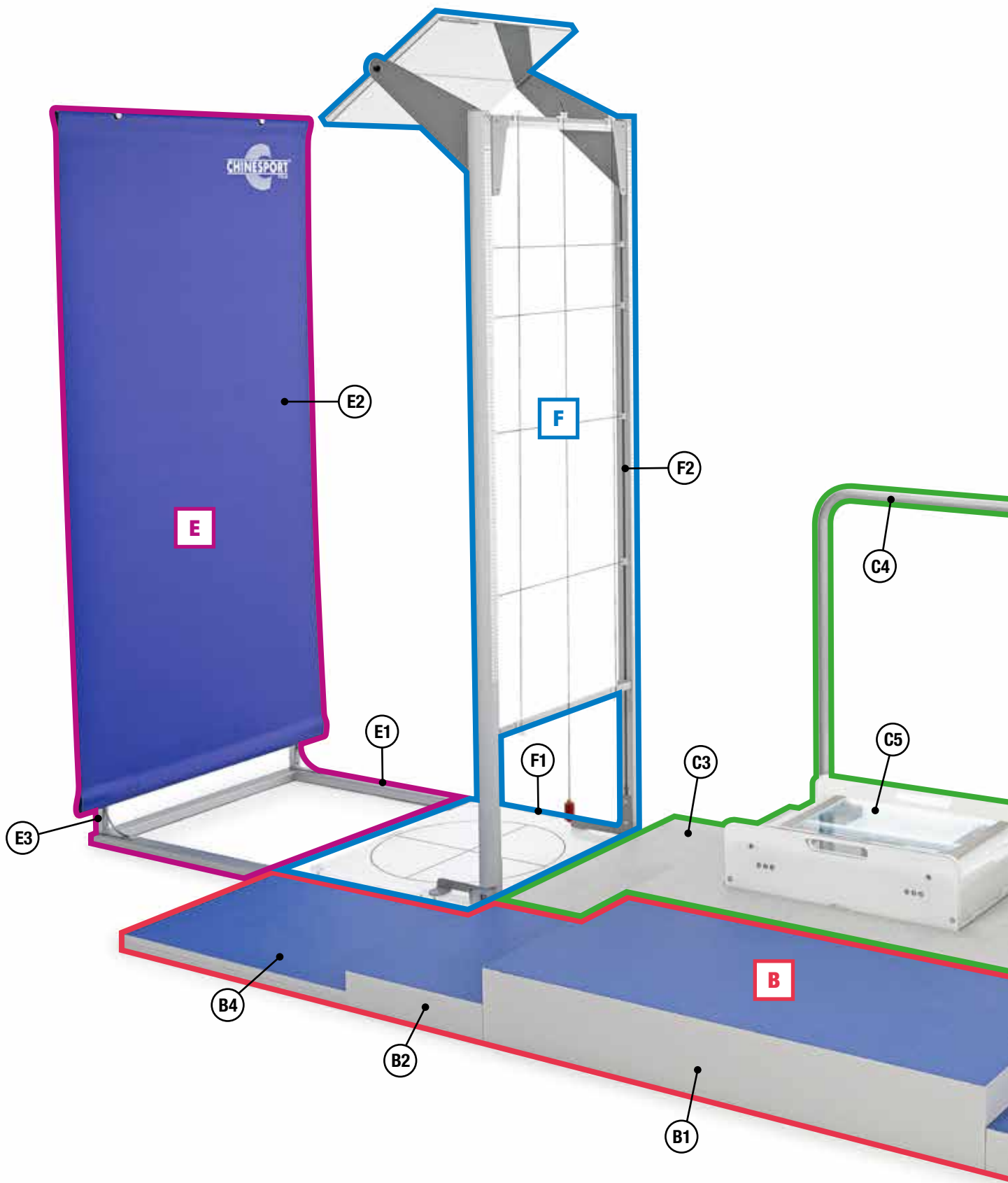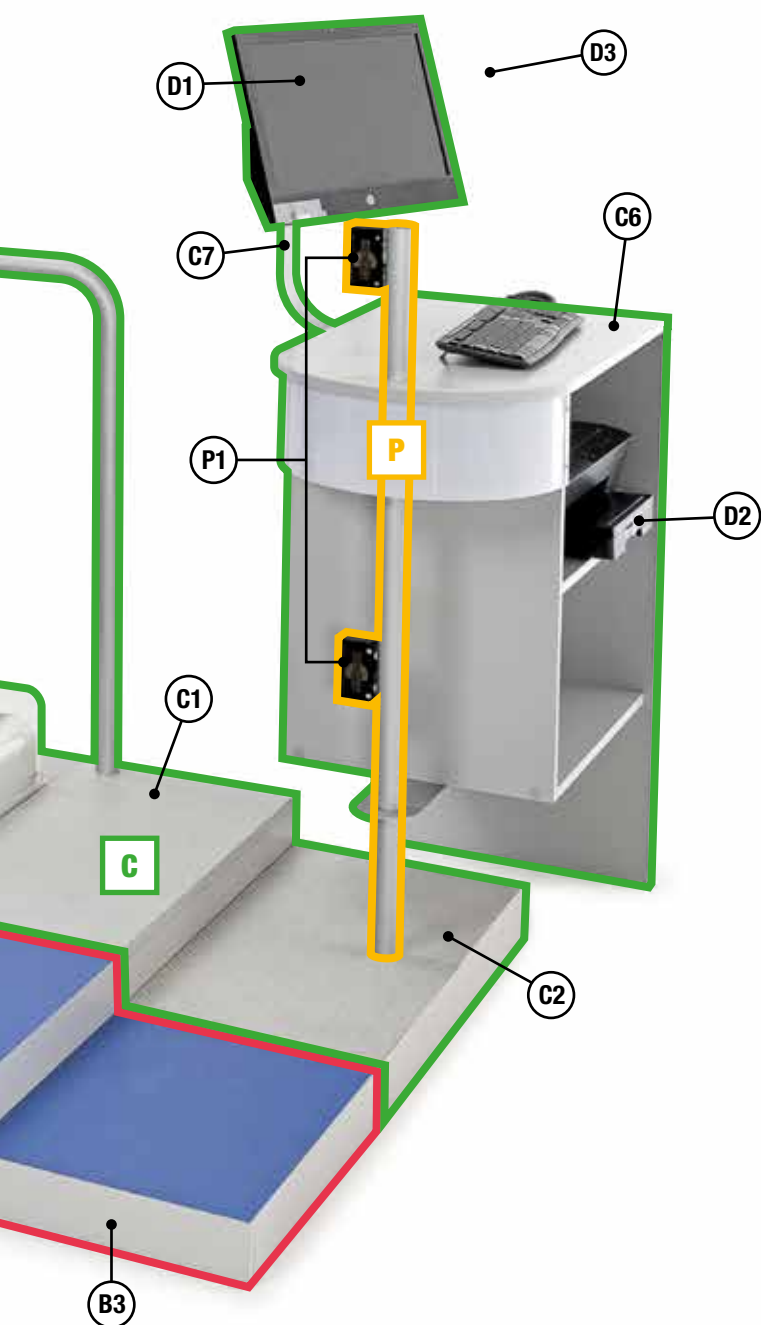
CENTRAL STRUCTURE

ID	CODE	PART NAME	TYPE
C1	SP0077	Basic module	S
C1	SP0078	Basic module cover	S
C2	SP0079	Module for rod	S
C3	SP0080	Terminal module	S
C4	SP0081	Handrail	S
C5	03021	Stabilometric platform	A
C6	SP0083	Desk with two shelves	S
C7	SP0082	PC support bracket	S
C8	SP0085	Connection kit PL0120	S

COMPUTER AND PRINTER

ID	CODE	PART NAME	TYPE
D1	01799	Postural data storage (computer)	A
D2	02104	Postural data evidence (printer)	A
D3	AC1249	TV wireless connection	A

PICTURE ACQUISITION DEVICES

ID	CODE	PART NAME	TYPE
P1	SP0084	Picture acquisition device	S

STRUCTURE EXTENSION

ID	CODE	PART NAME	TYPE
F1	AC1248	Frame for postural analyzer	A
F2	03002	Postural analyzer	A
F2	AC0870	Grid elastic kit	A
F2	AC1046	Foot positioning adhesive	A

BACKGROUND FOR PICTURES - AC1247

ID	CODE	PART NAME	TYPE
E1	SP0074	Background base	S
E2	SP0075	Backdrop	S
E3	SP0076	Background frame	S

BLUE PATH 1 - AC1245

ID	CODE	PART NAME	TYPE
B1	SP0070	Blue path - B1	S
B2	SP0071	Blue path - B2	S
B3	SP0072	Blue path - B3	S
B4	SP0073	Blue path - B4	S

For blue platform 2 AC1246 same components except for B4.

LEGEND: A=Accessory, S=Spare part.

POSTURE ANALYSIS

GPS Therapeutic pathways *for rehabilitation*

Mi.TO.
Therapeutic table

ARCHIMEDE
Pulley therapy system

GPS postural lab

Proprioceptive exercises

TCARE
Cellular regeneration therapy

The One-Stop Physical Therapy Solution

Creating Healthy Posture for Healthy Movement

▶ A novel, state-of-the-art, posture-centered approach.

▶ Effectively and efficiently treat musculoskeletal pain, injuries and disorders.

▶ Unites Chinesport's top-of-the-line therapeutic and diagnostic technologies.

▶ An affordable, easy-to-use and original package.

▶ Provides unique therapeutic and competitive advantages.

GPS Therapeutic pathways *for rehabilitation*

Chinesport offers a series of GPS Therapeutic Pathways courses that was developed and is provided in cooperation with experts from the GPS Academy. The course content is based on many decades of combined practical and clinical knowledge and experience of our experts. They are all experienced international speakers and will be able to provide you optimal support in the GPS Therapeutic Pathways.

Defining posture and the state-of-the-art in Global Posture Systems assessment and analysis

FOUNDATION COURSE, 2-DAYS

- Learn how different subsystems and body components interact in human posture and increase injury risk and contribute to pain and disorders
- Introduction to fundamental concepts in Global Posture Systems analysis
- Basic measurements and parameters in Global Posture Systems analysis and assessment
- Understand mechanisms underlying common postural deviations and how they interact in therapy
- Create basic GPS Therapeutic Pathways treatment plans that respect postural interdependencies

GPS Therapeutic Pathways approach in treating and preventing lower limb injuries and disorders

EXPERT COURSE, 2 OR 3 DAYS

- Learn how common posture issues affect lower limb injury and disorder risk
- Review lower limb posture measurements and latest research
- Gain insights into how lower limb segments affect each other and discover global posture interdependencies
- Understand the treatment of common lower limb injuries and disorders from a postural viewpoint; ACL injury, patellofemoral pain, MTSS, plantar fasciitis, ...
- Integrate GPS Therapeutic Pathways into your lower limb treatment plans

Avoiding and treat shoulder, elbow and wrist injuries using GPS Therapeutic Pathways

EXPERT COURSE, 2 DAYS

- Overview aetiology and prevalence of upper limb injuries with particular focus on overhead sports
- Learn how common upper limb injuries and disorders can be caused by poor posture
- Use GPS posture assessment tools to assess and analyse upper limb posture
- Shoulder impingement and scapular dyskinesia testing and treatment protocols
- Integrating GPS Therapeutic Pathways; myofascial release, activation and strengthening, integrative and proprioceptive training

Integrating GPS Therapeutic Pathways in spine and pelvic pain therapy

EXPERT COURSE, 2 OR 3 DAYS

- Discuss aetiology of common disorders from posture perspective
- Learn how GPS analysis can be used to develop a more encompassing therapeutic strategy
- Overview current global posture concepts in spine and pelvic disorders
- Apply GPS Therapeutic Pathways in treatments
- Learn pelvic and spinal pain prevention strategies through implementation of Global Posture Systems concepts
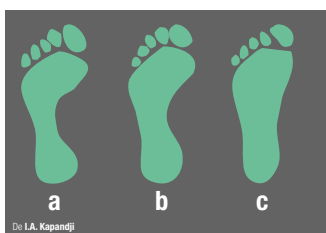
Podoscopes

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. Turning off the device is provided with direct disconnection of the power cord from the power supply. The device operates in low-energy consumption.Dimensions: 53,5 x 40 x 17 h cm; Weight: 9 kg; Safe working load: 170 kg
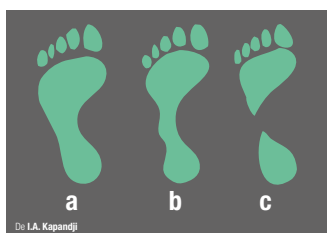

02992 PODOCOLOR

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. Turning off the device is provided with direct disconnection of the power cord from the power supply. The device operates in low-energy consumption. Dimensions: 53,5 x 40 x 17 h cm; Weight: 9 kg; Safe working load: 170 kg
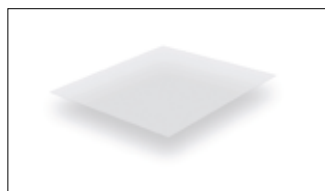

De I.A. Kapandji

a = normal arch; b and c = flat foot

De I.A. Kapandji

a = normal arch; b and c = cavus foot

POSTURE ANALYSIS

ACCESSORIES

AC0584 PROTECTIVE FILM
A protective accessory for the podoscope. It's made of transparent plastic and is easy to remove. It is ideal for applying to articles 02991 PODOLUX and 02992 PODOCOLOR.

AC0677 CABLE SWITCH
It's possible to integrate the podoscope code 02991 or 02992 with specific switch off to prevent the removal of the cable from the wall outlet.

02049 HINDFOOT GONIOMETER
The hindfoot protractor is a tool designed to measure the alignment of the rear of the hindfoot.

Photographic analysis *of the feet*

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. "Postural Safe" - code 03006 can be ordered as an accessory to help patient feels safe while standing on the platform.
Dimensions: 46 x 55 x 33 h cm; Weight: 15 kg; Safe working load: 200 kg

02997
LUX PODOSCOPE WITH COLORED LIGHT

Podoscope with same features of "Lux Podoscope" code 02990, but with the possibility of changing the color of the plantar imprint. Dimensions: 46 x 55 x 33 h cm; Weight: 15 kg; Safe working load: 200 kg

03006 POSTURAL SAFE

This item provides greater safety to the individual when he stands on a podoscope. It consists of a base, aluminum side bars and handrail. The device can be ordered separately or be part of a postural work station (see following pages). Dimensions: 75 x 100 x 125 h cm; Weight: 40 kg; Safe working load: 200 kg

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.

POSTURE ANALYSIS

D'Osualdo set *for postural assessments*

Before describing its content, we want to illustrate the purpose and importance of the project "Spine Leg Toolkit". The examination of the locomotor system concerns many professional figures, the orthopedist, physiotherapist, physiatrist, orthopedic technician, pediatrician, sports doctor, motor sciences doctors, just to mention the main ones: every professional has his own goals and objectives strategies but also many shared points.

List of tools contained in the suitcase called "Spine-Leg Tool kit":

1. Inclinometer
2. Arcometer
3. Postural caliber
4. Torsion meter
5. Iliac crests analyser
6. Delta leg N
7. Hindfoot goniometer
8. Foot size indicator
9. Goniometer

In particular, evaluating the alignment of the spine and lower limbs means first knowing the variability of the various parameters present in the population, age-related changes and finally the thresholds beyond which we can speak of anomalies or pathology. The mere observation is no longer sufficient: it gives us a first impression, qualitative data, too vague limits. Especially if we want to check a normal threshold, the trend over time or document the effectiveness of our therapeutic measures, we have absolute need for numbers, precise data. On the other hand, the daily use, in the surgery or in the gym, requires simple data, not bulky and above all non-invasive tools.

For this reason the "Spine Leg Toolkit" case has been designed, as an accurate choice of clinically tested tools to evaluate a high number of clinical interest parameters: frontal and sagittal compensation of the head and trunk, rotations on the transverse plane in static and in flexion, the sagittal curves, the heterometry of the lower limbs, the alignment and the foot length, together with joint angle measurement and analog scale ache. For the first time the professionist finds what he needs all inside a single case, which, we are sure, will become an essential accessory.

05006

SPINE-LEG TOOL KIT

It is a set of tools for non-invasive assessment of the locomotor system apparatus. The set is collected in one suitcase for convenient portability.

In its standard layout the set contains the following tools: inclinometer, arcometer, arm gauge long with plumb line, torque meter, iliac crest analyzer, delta-leg, set of rises, protractor rear foot, algo-protractor, foot gauge.

D'Osualdo set *for analysis of the back*

06855 D'OSUALDO'S INCLINOMETER

D'Osualdo's inclinometer is an original instrument that brings together two important functions: measuring the hump in antero-flexion (also called ATR: trunk rotation angle) in the patient with scoliosis and the measurement of the Cobb angle on radiographs; in this case can be used both in frontal curves (scoliosis) and in the sagittal plane curves (kyphosis and lordosis).

The inclinometer is composed of an almost-rectangular plexiglas element, bearing a protractor scale, and in its center there is fixed one small rod free to rotate around the same center and bearing one bubble; the free end of the rod bears the reading index for the scale protractor; the longer side of the rectangle has an indentation to make it easier to apply on the patient, in case of protruding thorns.

Dimensions: 19 x 8,5 x 1 h cm; Weight: 0,6 kg.

A simple measuring tool for the hump (trunk rotation angle) and for the Cobb corner

In **patient measurement** - standard position with patient on extended knees, flexed trunk, arms abandoned in front, the tool is placed gently on the back, the rod comes then rotated until it is "leveled"; the degree of inclination can be read immediately or even, unlike other tools, removing the instrument from the back and keeping the rod between the thumb and forefinger, thus allowing an even more precise reading. Scrolling along the back, from the thoracic to the lumbar tract, you can identify the most rotated section (s) and record its level.

In **radiographs measuring** the edge of the instrument comes next to the edge of the vertebra upper limit of the curve, the rod is then rotated until it is "leveled"; the degree of inclination is read on the protractor scale; the operation is then repeated for the lower limit vertebra. Cobb's angle is given by the sum of the angles of inclination of the two limit vertebrae. The inclinometer is also useful for the precise identification of the limit vertebrae, which are the most inclined.


POSTURE ANALYSIS
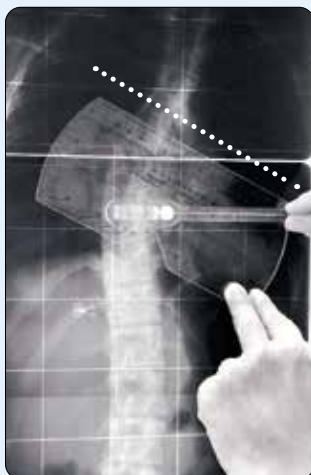
D'Osualdo set *for analysis of the back*

05003 D'OSUALDO'S ARCOMETER

D'Osualdo's arcometer is an original manual tool for measuring curves spine surface on the sagittal plane, kyphosis and lordosis. Consists of a millimeter bar on which there are orthogonally applied three rods: one fixed at one end, a movable intermediate on two axes and a third mobile on a single axis.

Dimensions: 35 x 21 x 4,5 h cm; Weight: 3,2 kg
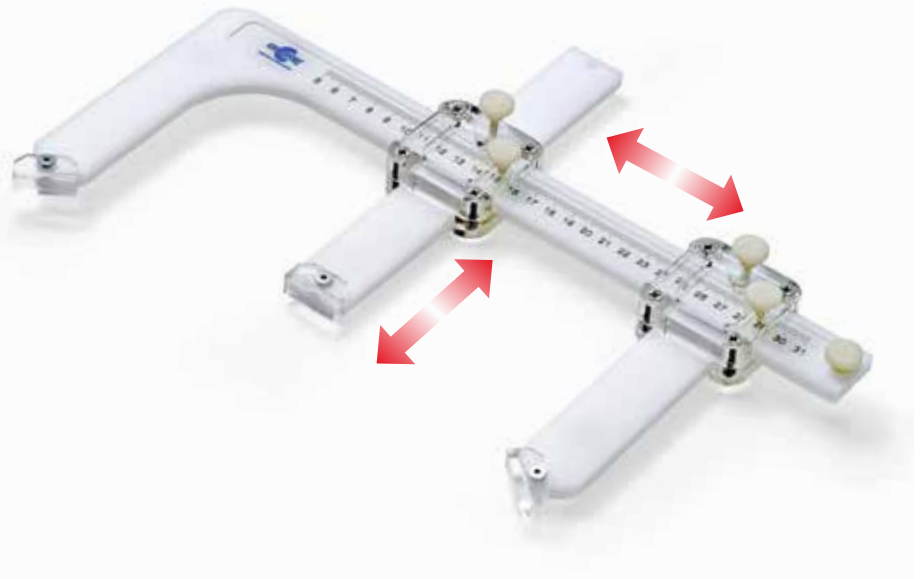
A precise tool for non-invasive measurement of kyphosis and lordosis

The principle behind the tool is the axiom that for three points only one circumference passes. The tool provides us with two data related to the tract of measured spine, approximated to an arc of circumference: the arrow and the rope. Starting from these two data we can obtain: the radius of curvature and the subtended angle, corresponding to the Cobb angle evaluated on the radiography.

The arcometer is a particularly useful tool as an integration to the clinical examination, screening for specialists, follow-up of the patient with curved back already radiographically evaluated: even if it does not replace radiographs, it helps to reduce their numbers. It also allows you to evaluate the subject both in spontaneous and self-correcting position, useful element for assessing the stiffness of the curve, for a judgment on the course and to evaluate the effectiveness of the kinesitherapy and / or orthotic treatment. The instrument is also equipped with a central rod with smaller diameter foot to allow the evaluation of the corset correction (by providing the dorsal pelota with a special hole).

TO FACILITATE THE CALCULATION

To measure kyphosis or lordosis, the arcometer is positioned with the side rods at the end of the curve. That value represents the rope. The central rod is brought to the medium point of this distance and therefore is approached to the back; her millimeter scale gives us the value of the arrow. The value of the Cobb angle and the radius one are obtained by a simple chart with two entrances which is supplied together with the tool.

POSTURE ANALYSIS

D'Osualdo set *for analysis of the back*

Made in Italy

05004 POSTURAL CALIBER

The long-arm caliber is a tool derived from the orthopedic technician laboratory, where it is used to release orthoses for the trunk and limbs.

With the addition of a sliding ring, where a plumb line is attached to,   the caliber makes it possible the description of asymmetries of the trunk and decompensations on the frontal plane in numerical terms, therefore repeatable and comparable.

Dimensions: 60 x 23 x 3,5 h cm; Weight: 5,3 kg
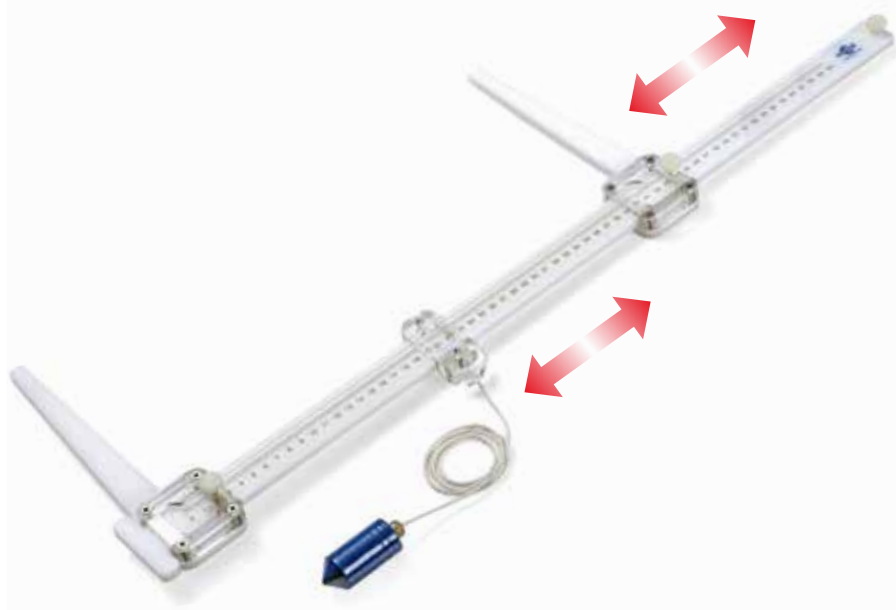
A revisited tool for asymmetries measurement

If we only think of a case of lumbar scoliosis and try to describe the hips asymmetry in a report, we find ourselves in using more or less vague terms such as "moderate, evident, remarkable", certainly not wrong but of little use for comparison.

In the context of a visit for the spine the caliber allows us to quantify the alignment asymmetries on the frontal plane and in particular to evaluate the movement of the head, of the upper trunk part or hips, with respect to the midline, taking for this purpose the inter-gluteal line or alternatively the bisector of the base.

A lateral shift of the midline of the head it's described by the term decompensation, a shift of the median line of the shoulders or hips is described as front, right or left translation respectively. This shift can be indicated in absolute values (cm) or better in percentage (% of translation) suggestable modality in progress for anthropometric changes affecting the trunk.

TO FACILITATE THE CALCULATION

To facilitate the calculation of the translation percentage it's available a simple two-entry chart along with the instrument. This tells us with a single number how much, in percentage, the center of the measured segment is displaced laterally than the theoretical center of symmetry. The formula used is the following: a-b / a + b%, where as numerator appears hence the difference of the two segments defined on the instrument by plumb line, as denominator the sum of the same segments.

POSTURE ANALYSIS

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D'Osualdo set *for analysis of the back*

05002 TORSION METER

The D'Osualdo-Corazza torsiometer is an original manual instrument for measuring the rotation of the trunk in orthostatism.

Rotation, expression of the column torsion on the transverse plane, represents one of the main signs of true scoliosis. The torque meter it's made of an arched base, a vertical telescopic rod connected to the base and by a mobile element above it, also arched circumference, parallel to the base, provided with a scale in degrees.

The total absence of invasiveness and the practicality of use makes the torque meter an ideal tool for use in a specialist clinic (physiatric, orthopedic), in the gym physiotherapy and movement analysis, providing immediate information and at a negligible cost compared to computerized equipment otherwise necessary.

Dimensions: 16÷24 x 12 x 6 h cm; Weight: 1,5 kg

A practical tool for measuring the trunk rotation in orthostatism

The evaluation of a subject with suspected scoliosis using a torque meter is carried out in a standing position. The basis of the tool is put to the sacrum; in this way a zero plane is defined as reference, with respect to which the alignment of the trunk on the transverse plane to the desired level will be read: from lumbar to middle back.

When the mobile element is placed against the back, it will slide into its housing by a corresponding number of degrees to the rotation of the trunk. An index on the housing indicates with precision degrees of rotation.

The tool is suitable for a diversified use:

- In standing position it accurately identifies a rotation of the trunk, one of the most sensitive clinical signs for identifying a true scoliosis;
- We can compare the static rotation with the rotation in anteroflexion (scoliometer, inclinometer) not always stackable and related data, but inaccurately, with vertebral torsion measured on radiography;
- In orthostatism or even in sitting position we can check for any change of rotation with a stretching exercise (information on defect reducibility);
- With a stabilized pelvis (preferably seated) we can evaluate the excursion of the trunk in an active rotation movement (articular range and symmetry of the excursion).

D'Osualdo set *for analysis of the back*

06830 ILIAC CRESTS ANALYSER

The instrument basically consists of a lever at which main bar, curved, two further articulated bars are applied. The curvature of the first bar is intended to adapt to the anatomy of the lumbar back passage, the lateral bars are drawn to lean on the iliac crests and will be more or less open depending on the size of the basin.

Dimensions: 34 x 8 x 2 h cm; Weight: 1,8 kg

An adaptive lever, still useful today

The bubble placed in the center of the main bar tells us essentially if the pelvis is levelled, when patient is positioned in orthostatism with load well distributed on the two lower limbs. Otherwise the operator will place one or more raises on the falling side, until the instrument will be levelled. At this point it will be possible to check the pelvis alignement and quantify the difference in length of the lower limbs. For this purpose, the kit is equipped with a series of ½ and 1 cm raises.

Note that the evaluation of a difference in length of the lower limbs requires a lot of attention. Indeed mistakes are possible either for incorrect positioning of the subject but also for presence of anatomical variables, such as asymmetric skeletal pelvis, twisting of the lower limbs, laxity of one or more joints, musculotendinous retractions. To improve the evaluation accuracy it is therefore suggestable to use multiple measurements in different postures, now made possible by the different tools contained in this kit.

06810 PLUMB LINE

POSTURE ANALYSIS

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D'Osualdo set *for analysis of lower limbs*

05005 DELTA LEG N

The delta-leg is an original tool for lower limbs heterometry evaluation. It was designed to overcome the repeatability limits of traditional non-evaluation invasive methods, until now available, in particular the blocking method and the tape measure.

The tool consists of a bar on which two orthogonal platforms are applied: one is fixed and acts as a reference, the second is movable along the longitudinal axis of the bar and is equipped with a pointer which indicates the numerical value of the heterometry, positive or negative, on a millimeter scale placed on the surface top of the bar, with the "zero" value corresponding to the platform reference. In the carry-case version the instrument is equipped with removable footboards to reduce the footprint.

Dimensioni: 45 x 25 x 22,5 h cm; Peso: 1,25 kg

For measuring the length (heterometry) difference of the lower limbs

To measure, the patient is positioned supine and well aligned: head aligned with zenith nose, trunk aligned, lower limbs parallel with zenith positioned kneecaps. The operator therefore makes sure that the instrument has the longitudinal axis well aligned with the legs. Then he proceeds by placing the fixed platform next to the left foot, exerting moderate pressure to ensure good adhesion to the whole plant, and in particular to the heel. He approaches then the right, mobile platform, exerting equal pressure. The difference, on the millimeter scale, can be read at this point, or after removing the instrument (taking care not to alter the relation between the platforms). In case of retraction of the Achilles tendon we will only be able to measure functional heterometry.

Note

Heterometry can be measured with good accuracy with a series of rises and a subject levelled in anteroflexion: the ½ cm rises are added one after the other until the level positioned on the sacred will be in bubble. Many subjects however, especially males, present a retraction of the hamstrings which makes impossible one complete trunk flexion and therefore measurement. For these cases supine discharge assessment is essential. Another method, frequently used but less precise, involves the tape measure, with reference to the anterior iliac spine and a malleolus.

06730 SET OF RAISES

The set consists of seven elevations, one of 0.5 cm high and other six of 1 cm each.

D'Osualdo set *for analysis of lower limbs*

02049 HINDFOOT GONIOMETER

The hindfoot goniometer is a small, simple and intuitive tool designed to measure the alignment of the baby's hind foot, but also useful in adults. It consists of a plexiglass polygon bearing a staircase protractor, a rotating pointer and a foot that keeps it vertical.

Dimensions: 10 x 3 x 10,5 h cm; Weight: 0,5 kg
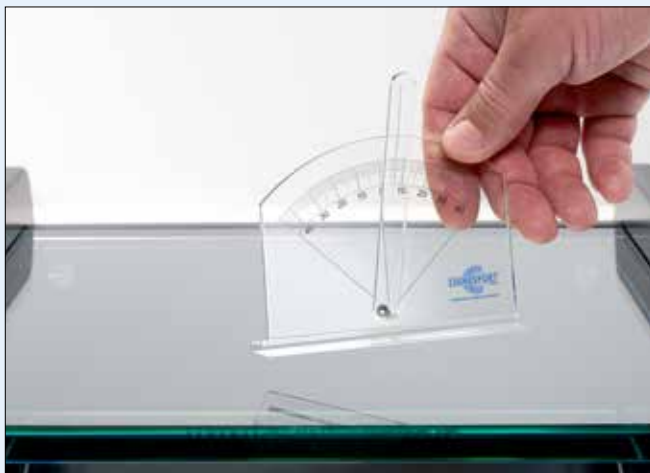
A simple tool for objective hindfoot axis evaluation

To collect measurement, the instrument is brought close to the hindfoot, with the examined patient in static position, preferably on a plane raised above the floor to facilitate the reading. The pointer is oriented parallel to the hindfoot axis and the value of valgus or of varism is immediately readable in degrees.

Normality limits cannot be indicated absolutely, since they may vary according to age and loading methods (mono or bipodalic) and the scientific literature itself provides heterogeneous values. However in the child it can be roughly indicated as a threshold of attention, a valgus superior than 8-10 °, any varism value and significant asymmetries between the two sides.

In doubtful cases it is not much the absolute value but rather the trend over time that can guide us for a physiological or pathological situation. For this purpose the tool, for its ease of use, is particularly useful by allowing repeated measurements at longer or shorter intervals. This is particularly valid in the young child, where the laxity of the ligamentous structures frequently involves major deviations in valgus of the hindfoot, while loaded , however usually progressive improvement are noticed with growth. Even the difference in value of the hindfoot angle in monopodalic load compared to the bipodalic one, could provide clinicians with important information.

POSTURE ANALYSIS

16

D'Osualdo set *for analysis of lower limbs*

05001 FOOT SIZE INDICATOR

Dispositivi per la misurazione della lunghezza del piede sono presenti in commercio da tempo tuttavia il loro utilizzo raramente è uscito dal laboratorio del tecnico ortopedico.

Questo strumento è stato inserito nella valigetta "Spine Leg Toolkit" perché nella valutazione dell'apparato locomotore, in corso di crescita ci può fornire delle informazioni importanti, spesso sottovalutate. Il periodo che più ci interessa è quello della pre-adolescenza e della adolescenza.

Il misuratore del piede ci fornisce la lunghezza del piede, raccolta in carico, in centimetri ma non è tanto il valore assoluto che ci interessa. Infatti il piede nella pre-adolescenza presenta una fase di accelerazione che precede di uno-due anni quella della statura, pertanto un rapido cambiamento di lunghezza del piede sarà una informazione importante per capire quando comincerà ad accelerare l'altezza ed una sua frenata anticiperà la fine della crescita staturale.

Dimensioni: 45 x 14 x 6 h cm; Peso: 5 kg
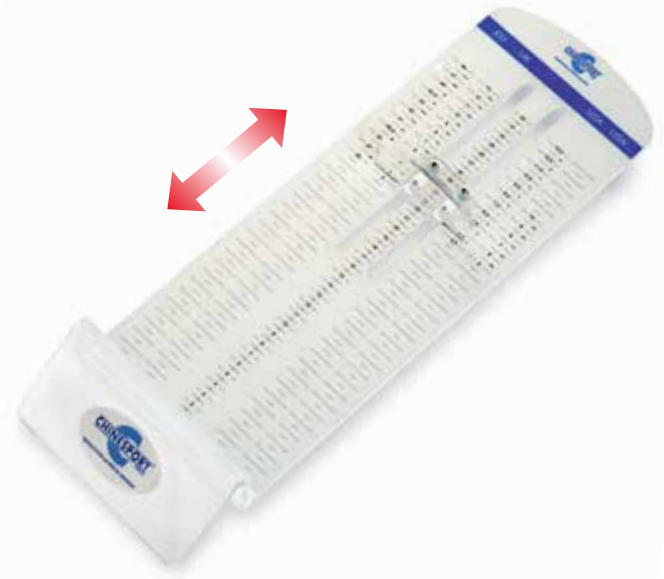
An ancient tool for collecting new information

On a first visit, often information on growth foot is not available and in this case we can enhance the foot / height comparison. In fact, a high comparison, over 16, 16.5%, will indicate a phase of acceleration of the foot and therefore one initial pubertal development. A low comparison, less than 15% in one teenager with secondary sexual characteristics, already mature, will tell that we are in a phase where the height growth is slowing down.

It should certainly be taken into account the variability present in the population: there are small people with long feet and vice versa, however for the clinician who has to take important decisions, also the foot growth speed value and the comparison between foot & height, have an important value, near all other anamnestic data and secondary sexual characteristics, equally variable.

06061

FOOT MORPHOLOGY POSTER

It is a plastic poster with matt anti-reflect surface. In particular there are shown the three different degrees of the hollow foot and flat feet. Edition only in Italian.

Dimensions:
66.5 x 48 h cm.

Morfologia del Piede

Anatomical models of the three different types of foot, normal (M30), flat (M31) and cavus (M32).
Dimensions: 13 x 24 x 10 h cm; Weight: 0.4 kg.

M30 NORMAL FOOT
M31 FLAT FOOT
M32 CAVUS FOOT

POSTURE ANALYSIS

D'Osualdo set *for postural assessments*

05000 GONIOMETER

The algo-goniometer contained in the "Spine Leg Toolkit" case brings together in one instrument two important functions that have been intentionally associated for their frequent concomitance: joint examination and pain assessment.

The joint examination represents a fundamental step in the evaluation of the musculoskeletal system at any age and acquires particular importance after a trauma, orthopedic interventions, inflammatory pathologies or degenerative joints, allowing to document both the spontaneous trend over time and the effectiveness of the therapeutic measures. The tool is then indispensable where there is need to correctly position an adjustable orthosis.

Dimensions: 20,5 x 4,5 x 2 h cm; Weight: 1,4 kg

A classic, always essential tool

Pain assessment is recognized today as an obligation for each user who is taken in charge and its documentation represents an essential standard for every healthcare facility.

The instrument presented here has a double scale: the method of smileys (Wong Baker) for the child from 3 years and the VAS scale (visual-analogue scale) from 8 years onwards.

In the first one, the choice is made from a series of smiley faces with different expressions, in the second a cursor indicates the score along a graduated scale from 1 to 10.

The pain scale usually depends on the user and, subsequently, at shorter or longer intervals depending on the problem, acute or chronic.

POSTURE ANALYSIS

SPINE PATH

Your support in evaluation of
idiopathic scoliosis

PATIENT CARD

Complete the patient's evaluation form
and begin your process with Spinepath

DISCOVER MORE >>

THE PROCEDURE

Follow the instructions of the algorithm
to get the evaluation of your patient

DISCOVER MORE >>

SPINE PATH PROJECT

The Spine-Path procedure has been developed to help clinicians dealing with
adolescents affected by idiopathic scoliosis during their evaluation and clinical decision-
making process. This document is meant to help, not to replace, the clinician's analysis.
The procedure has to be a guide and not a diagnostic device used without a specific
clinician's evaluation. The Spine-Path procedure has been specifically developed for
children and adolescents aged 9-15 with suspected scoliosis. Although idiopathic
scoliosis is the most common type of spine deformity, its diagnosis is still made by
exclusion

PROCEDURE
Who is Spine Path for?

The Spine-Path procedure has been developed to help clinicians dealing with adolescents affected by idiopathic scoliosis during their evaluation and clinical
decision-making process.

The Spine-Path procedure has been specifically developed for children and adolescents aged 9-15 with suspected scoliosis.

Although idiopathic scoliosis is the most common type of spine deformity, its diagnosis is still made by exclusion. The first medical examination of an adolescent with
suspected scoliosis consists of a detailed personal and family medical history, a physical examination to exclude associated symptoms or other underlying
conditions, the spine alignment and mobility evaluation on all planes, the collection of any auxological information at disposal.

CLINICAL TIPS
Aim and limits of the procedure

- INFORMATION FOR THE CLINICAL EXAMINATION
- THE ANGLE OF TRUNK ROTATION
- LEG LENGTH DISCREPANCY (LLD)
- QUANTIFYING ROTATION
- EVALUATING GROWTH AND DEVELOPMENT
- ADDITIONAL CLINICAL ELEMENTS
- RADIOGRAPHS
- BRACE PRESCRIPTION
- THE FOLLOW-UP EXAMINATION
- ORTHOPAEDIC EXAMINATION

During the medical examination boys should wear only their pants
whereas girls should wear only their bra and underwear. The examination
usually starts observing the patient standing with parallel feet. The
clinician looks for asymmetries on the frontal plane observing shoulder,
hip, head and spine alignment. The above mentioned elements are
important to complete the clinical examination but are of uncertain clinical
interpretation.

If spine asymmetries are noticed, the clinician has to verify whether the
patient is affected by scoliosis or functional scoliosis asking the patient to
bend forward and noticing if trunk asymmetries or any abnormal spinal
curvatures are present. The spine evaluation always includes the
observation of dorsal kyphosis and lumbar lordosis on the sagittal plane.
Their degree can be easily quantified using an arcometer but the present
algorithm does not include any specific cut-off value for them. Sometimes,
however, they play an important role during the clinical decision-making
process.
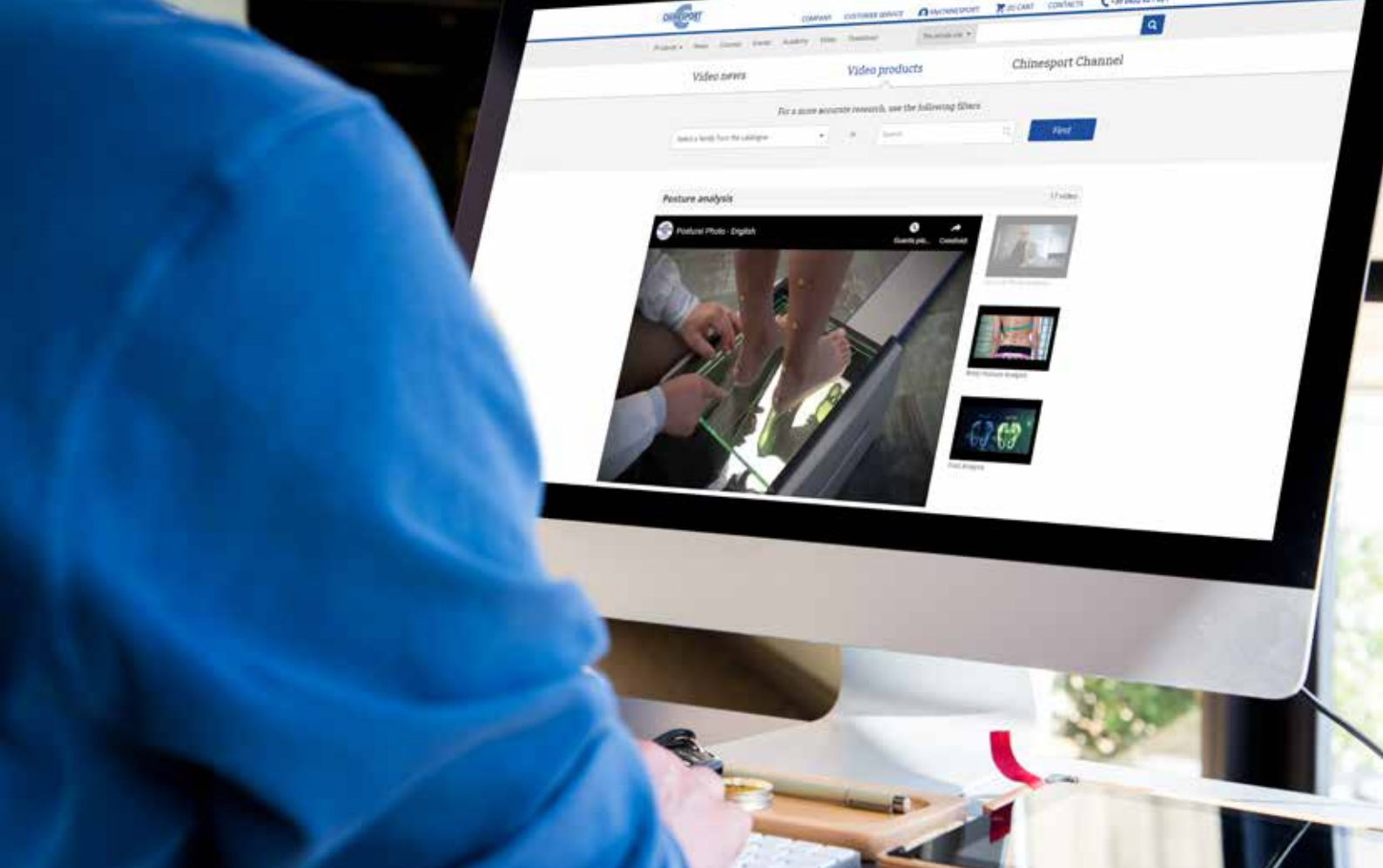
Chinesport's website has also been designed and set up for those using mobile phones or iPads, not necessarily because they are out-and-about or travelling, but because they wish to know more about it while using our catalogue or other documentation. We are constantly involved in publishing new detailed information, photos (now even bigger), videos and multimedia files that are worth sharing.

Point, and explore the video!

Chinesport, just a click away

Chinesport is based in Udine, Italy, between the Alps and Venice. For over 40 years we have been dedicated to healthy posture for healthy movement. The root of our company name refers to the Italian word "chinesiterapia", or movement therapy. We strongly believe and adhere to "movement culture" as a way to prevent and cure injury and disease.

Today we are a global leader in developing and manufacturing rehabilitation equipment and assistive devices. We have excellent and long-standing business relationships in almost 80 countries worldwide. The Chinesport general product catalogue contains over 1.000 innovative, high-quality products. New catalogue editions that include the latest product innovations and trends are regularly published. Our own medical-scientific training and educational program is continuously expanding and caters for all specialised rehabilitation fields. As an organisation, we have been working with a certified quality management system and in compliance with international ISO 9001 and ISO 13485 standards since 1998.

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