

Professional orthopedic footwear



We specialize in the personalized footwear made to an individual order.

We are able to manage every, even the most difficult order. Your health is our priority.



For over 15 years we have been specializing in the production of prophylactic and corrective footwear for the youngest users. Bearing in mind primarily their health, we want to better adapt to their needs. Therefore we have decided to create the AurelkaORTO<sup>®</sup> brand.

This line of orthopedic products was created at the request of orthopedists and physiotherapists. The models are based on the designs from our catalog taking into account the latest market trends. Thanks to this, even a child with the advanced correction in the footwear does not have to be ashamed when spending time with its peers – what's more a child can even be proud of wearing our footwear.

Each pair is made to an individual order based on orthopedist's recommendations and the accurate measurement of the child's foot. We offer a dozen or so corrections. However, we are able to realize any, even the most specialized and unusual order.

The AurelkaORTO<sup>®</sup> offer also includes orthopedic insoles, Denis-Brown splints, the footwear for orthoses and the BOA<sup>®</sup> fastening.

We constantly strive to expand our knowledge about caring for the health of children's feet. We regularly participate in medical symposia. In our stores – both those belonging to our company and to our partners - we perform periodic, free foot tests for children. Having in mind that not every parent has the access to a good orthopedist, we have recently launched on our website the possibility of an on-line consultation with an orthopedic traumatologist, physiotherapist.





The design of our shoes is the result of many years of cooperation with Polish and Austrian orthopedists.



## CORRECTIONS

#### au**relka** ORTO

One of the biggest advantages of the AurelkaORTO<sup>®</sup> footwear brand is that while maintaining the original structure of the upper with only small corrections of the bottom or insole, we obtain the orthopedic character of the footwear. This is possible due to the special properties of the bottom.

The material used for manufacturing of the bottom is a type of rubber produced by the Italian company VIBRAM<sup>®</sup> with a simple form of the tread and exceptional plasticity. This structure allows for attaching elements which correct the position of the foot.



Familiarize yourself with the most common corrections in the AurelkaORTO® footwear





### Thomas heel

It causes only a slight elevation of the heel in relation to the toes. The heel is made in the sole.

The correction is most often recommended for: valgus knees, plano-valgus foot









### Inverted Thomas heel

The heel raises the back foot in relation to the forefoot and slightly changes the position of the outer foot edge in relation to the central axis. The correction is performed in the sole.

The correction is most often recommended for: varus knees, club foot

### Pronation of Thomas heel

It works just like the supinating Thomas heel, but just in the opposite manner, that is, it leans the shin inward from the central axis. The pronating heel is elevated from the outside. Its height may vary depending on doctor's recommendations. The correction is made in the sole.

The correction is most often recommended for: varus knees, club foot





### Supination of the Thomas heel

The correction is in the form of a modified Thomas heel (in option). It is used to correct the deviation of the shank axis outward from the central axis. The supinating heel is lifted from the inside. The height of supination may vary depending on doctor's recommendations. The correction is made in the sole.

#### The correction is most often recommended for: valgus knees, plano-valgus foot

### Corset stiffening

The correction is characterized by a significant elevation of the standard tab (in the prophylactic footwear the tab does not exceed the height of the Achilles tendon). The tab is made of the very stiff material, it acts as a corset. We distinguish between heel and frontal stiffening.

**The correction is most often recommended for:** MPD, flaccidity of the muscles of the foot and joints.



**CORRECTIONS** 







### Tabs

#### The first variant - tabs equal from the outside and inside.

#### The correction is most often recommended for:

physiological flat feet, static flat foot, plano-valgus foot. The length of the tabs is 2/5 of the length of the shoemaker's last bedding; the height does not exceed the height of the heel.

The second variant - the tab from the medial side is longer than the lateral tab.

#### The correction is most often recommended for:

physiological flat feet, static flat foot, plano-valgus foot. The tab from the inside is 3/5 of the length of the shoemaker's last bedding; the wing from the outside is 2/5 of the length of the shoemaker's last bedding; the height corresponds to the height of the heel.

**The third variant** - the tab is significantly extended towards the toes on the medial side in relation to the outer tab.

#### The correction is most often recommended for:

foot adduction, club foot. The length of the medial tab is 7/10 of the length of the shoemaker's last bedding; the wing of the outer tab is 2/5 of the length of the shoemaker's last bedding; the height is similar to the variant I and II.

The fourth variant - tabs of the same length on both sides.

#### The correction is most often recommended for:

falling foot, spastic club foot. The tab, both from the inside and outside, covers 3/5 of the length of the shoemaker's last bedding; the height of the tab in the heel part is 2/3 of the foot length.





### Supination of the back foot

The correction is characterized by the elevation of the inner edge of the foot. As the name suggests - it covers only the back foot. It can be made in the sole or inside the footwear - in the insole. Supination can have different height according to the doctor's recommendations.

The correction is most often recommended for: plano-valgus foot, valgus knees.



### Pronation of the back foot

The correction is the reverse of the supination of back foot. It changes the position of the lateral foot edge in relation to the central axis. Pronation can be made inside or outside the footwear - in the sole. The correction height depends on the doctor's recommendations. The correction covers only the back foot.

The correction is usually recommended for:

club foot, varus knees.



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example in the right sho



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CORRECTIONS

#### The gusset from the inside - supination

The gusset can be made in the sole or inside the footwear - in the insole. It can have different length and height. It raises the edge of the inner foot. The gusset made inside the "AURELKA" brand® footwear must not exceed 1 cm in height (open models) or 0.5 cm (models with concealed fore foot). The gusset made in the sole of open and closed shoes may have a different height depending on doctor's recommendations.

The correction is most often recommended for: valgus knees, plano-valgus foot



### The gusset from the outside - pronation

The purpose of the correction is to change the position of the outer edge of the foot in relation to the inner edge. The pronating gusset is the inverse of the supinating gusset. The modification can be made in the sole or inside the footwear. It raises the edge of the outer foot. The gusset can have different length and height. The gusset made inside the AurelkaORTO brand footwear can not exceed the height of 1 cm (open models) or 0.5 cm (models with concealed fore foot). The gusset made in the sole of open or closed shoes may have different height depending on the doctor's recommendations.

The correction is most often recommended for: Varus knees, club foot, fore foot adduction







Modification of the footwear, most often soles, whose aim is to compensate for the difference in the length of the lower limbs. In the AurelkaORTO® brand footwear, the shortening can be made in the sole or in the insole (inside the footwear). The method of the correction is determined by the height of the shortening.

Variants of possible modification:

- the shortening made inside the footwear if the height does not exceed 1 cm in the back foot and 0.5 cm in the forefoot,
- the shortening in the sole (each height depending on individual client's needs),
- a part of the shortening made inside the footwear in the cases when the correction is to be less visible, the remaining part of the shortening is made in the sole. The shortening made inside must not exceed 1 cm in the back foot and 0.5 cm in the forefoot. The external part of the shortening may have a different height depending on the individual needs of the client.

The shortening is always made with a sway at the height of the first metatarsal head. It is also possible to sway in the heel area which facilitates rolling of the foot at the higher shortening. At the customer's request, the shortening can be made without sway while maintaining the same height, both in the back foot and forefoot.

The correction is most often recommended for: different length of the lower limbs.

Shortening of the entire

shoe with sway

Shortening of the entire shoe without sway





Shortening with slope and sway

Shortening with slope without sway





### Different sizes of a single pair of shoes

Modification of the shoes made for different lengths of the feet, for example, the size of the right shoe 25, the size of the left shoe 27. If the length of the feet is significantly different, the difference also affects their fitting. This has an essential impact on the visual effect of the product. Bearing in mind the good of the client, we make every effort to make these differences as little visible as possible.

#### The correction is most often recommended for: correction used for different lengths of the feet.

### Metatarsal pad

Prophylactically for pregnant women and people doing standing - walking work. The pad relieves the three metatarsal heads (II, III, IV), counteracts the formation of hammer fingers and convex forefoot. The element is glued under the padding at the appropriate length of the foot. The place of the pad attachment is determined on the basis of the foot print with the outline marked.

#### The correction is most often recommended for:

forefoot overload syndrome, Morton syndrome, hollow foot, midfoot pain, metatarsal bone fracture.









#### CORRECTIONS

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#### Anti-varus - simple form (symmetrical)

The shoemaker's last has a simple shape (it is neither abducted nor adducted), it is devoid of a clear hollow from the medial side at the height of the longitudinal arch. The tabs on the inner side of the foot are extended forward towards the head of the first metatarsal bone (the site of the hallux valgus formation). The footwear usually has corset stiffening. As the name suggests, "anti-varus" (from the Latin varus) prevents varus deformity.

The correction is most often recommended for: club foot, foot adduction, pigeon walking.



### Anti-varus – abduction form

The shoemaker's last is localized in the abduction position of the forefoot (it causes the abduction of the forefoot to the outside). The tabs on the inside of the foot are extended forward, towards the head of the first metatarsal bone (the site of the hallux valgus formation). The footwear usually has corset stiffening. As the name suggests, "anti-varus" (from the Latin varus), it counteracts varus deformity.

The correction is most often recommended for: club foot, foot adduction, pigeon walking







#### Supination of the longitudinal arch

The element is placed inside the footwear, under the padding, at the height of the longitudinal arch. The support may have a different height, depending on the individual needs of the client.

The correction is usually recommended for: valgus knees, plano-valgus foot.

### Stabilizing element (shoemaker's last heel seating)

It stabilizes the correct seating of the heel in relation to the axis of the lower leg (it creates a shoemaker's last for the heel). The element is glued in the back foot under the padding

The correction is usually recommended for: hollow feet, rheumatoid feet with heel instability.











#### Denis-Browna splint

The splint with the variable length connecting two feet is adjusted to the selected model. Using the key, we can adjust the feet setting at the angle of 0 to  $45^{\circ}$ , pronating or supinating.

#### The correction is most often recommended for:

night correction of the club foot, talus valgus or torsional deformation of the lower limbs.

#### The set includes two splints of the following length:

- the maximum length of 20.5 cm, minimum 5.5 cm
- the maximum length of 38 cm, minimum 21 cm

The type and size of the footwear is individually selected.

Footwear for orthoses

Model 1031 with an open heel and the BOA® system allows disabled people to wear shoes in the simplest and safe way in everyday life. The system offers easy one-handed operation and ensures even tension of the upper on the whole foot, which gives a perfect fit of the footwear.

These shoes were designed especially for children wearing orthoses, thanks to which they can easily put on and take off the footwear.

Fair 2015

Award at the XXIII International Rehabilitation Equipment

Model 1031 available in the size 20 - 42



Finalist of the Good Design 2017 contest organized by the Institute of Industrial Design





### Aurelka<sup>®</sup> shoe-orthosis



It is recommended in paresis of the lower limbs in children (often accompanied by contractions of the muscles or muscle groups) and in people with permanent deformation of the feet. This is an alternative to orthoses and orthopedic shoes ordered separately.

The use of appropriate orthoses and orthopedic footwear is necessary for tilting a patient to the erect position and learning to walk. We always use orthoses available on the Polish market together with the orthopedic footwear. Typically orthoses and orthopedic footwear are made by different manufacturers, so the final result is often not the optimal one for a given patient. It happens that orthosis fasteners are badly arranged in the shoe, the fastening method and the shape of the shoe overload the elements of the orthosis, and repeated putting on of a rigid orthosis damages the shoe. Usually, it is not possible to check whether the two elements work properly together during a walk.



#### The advantages of using Aurelka<sup>®</sup> shoe-orthosis":

- one manufacturer is responsible for the correct production of orthopedic supplies, which shortens the time of manufacturing
- the problem of doubled fastenings of orthoses and shoes disappears
- the BOA fastening system greatly facilitates independent putting on of the footwear by the patient or caregivers
- at the last stage of the production, during a walking test performed on the ground, we can assess the improvement of gait (the way the feet are loaded, positioning of the pelvis and torso) and, if necessary, thanks to the appropriately selected heels used in the sole, we can obtain even more improvement
- we can optimally determine the size of the functional shortening of the lower limb and apply the appropriate alignment (this is difficult without shoe-orthesis® if there are contractures of the ankle, knee or hip joints)

Model 1033 available in the size 20 - 42



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# Measuring feet for the individual Aurelka® footwear

Tailor-made footwear is always made based on individual foot parameters.

Therefore, in addition to determining the correction to be applied in the footwear, the order foot should include the following data:

- Foot/orthosis contour
  Circumference over the ankle
- Circumference of the forefoot (A)
- Circumference of the instep(B)
- Circumference through the heel (C)
- Circumference over the ankle (D)
- Foot/orthosis length (E)
  Circumference through the heel

Through the ankle and heel

- Forefoot width (F)
- Heel width (G)

Circumference of the instep

The highest part of the foot

#### Circumference of the forefoot

The widest part of the foot

Measurement of the foot Circumference over the ankle www.aurelka.pl/pomiary



#### Measuring on the foot contour



Please follow the instructions below to measure the foot size:



- 1. Standing on a piece of paper outline the circumference of the foot.
- To draw the foot correctly, keep the pencil at the right angle to the chart
- 2. Measure (in centimeters) the distance between the furthest points in the drawing (a and b).

### Sometimes it is advisable to take additional measurements, e.g.:

- Circumference through the toes
- Height of the toes (H)
- Height of the great toe joint (I)
- Height of the arch of the foot (J)



#### There are some important points to be kept in mind when taking measurements:

- A second person is helpful to take the measurements
- Measurements should be taken in a standing position or, in people who can not walk, sitting with the right angle under the knee
- Measure the feet separately
- In the case of footwear made for the already worn insoles, the measurements must be taken with an insole placed under the foot
- In the case of footwear for orthoses, the measurements are taken with the orthosis attached to the foot

• When measuring circumferences of the feet with orthoses, we should take into account belts, fasteners, hinges, etc. used in the orthosis, because they affect the fitting of the footwear

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- Record absolute measurements, i.e. without increasing them at your own discretion when designing the footwear we have to take into account necessary additions
- Take pictures of the foot from the side, front and back and attach them to the order







- Calf circumference at the widest point (M)
- Height of the widest point of the calf (N)
- Height of stiffening (tabs) (O)



#### aurelka ORTO

### Orthopedic insoles

As orthopedic insoles for children perfectly stabilize the heel, they work well even during the long-term use. Wellfitted orthopedic insoles for children bring relief to your child's feet and provide it with stability perceptible during each step. Our insoles are characterized by high flexibility. This allows for perfect cooperation between the foot and the insole while walking. The foam used to produce our insoles is a high-quality material that ensures the proper air flow. Our orthopedic insoles for children are a perfect solution for parents who want their children to develop properly.







#### WK model

The insole supinates the longitudinal arch of the foot and stabilizes the heel. It is recommended when correcting tarsus valgus, longitudinal flat feet and valgus knees with deep heel seating. The insole is made of the materials that ensure the correct positioning of the foot in the shoe and its proper breathing.

Numbers from 20 to 36



#### WSiK model

The insole supinates the longitudinal arch of the foot; it is recommended for the correction of valgus heel, longitudinal flat feet and valgus knees. The insole is made of the materials that ensure the correct positioning of the foot in the shoe and its proper breathing.

Numbers from 20 to 40







### WSP model

The insole supinates the heel. It is recommended for the correction of valgus heel. The insole is made of the materials that ensure the correct positioning of the foot in the shoe and its proper breathing.

### Heel pads

The height from 0.5 cm to 1 cm (any size is available on request)

Numbers from 20 to 40



ORTOPED S.C. Instalatorów 2, 06-500 Mława E-mail: info@aurelka.pl

Phone/Fax: +48 23 655 13 86 Phone +48 505 324 699

E-mail: karolina.zakrzewska@aurelka.pl E-mail: renata.wypych@aurelka.pl

www.aurelka.pl

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