

# 4 in 1

STANDING FRAME

# ELLA

THE FIRST STEP  
TOWARD THE  
FIRST STEPS

- COMFORT
- PRECISION
- VERSATILITY



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# ELLA

## STANDING FRAME

Standing is an important part of physical therapy and an essential step in a child's development. The Ella standing frame adapts easily into the most demanding needs related to standing.

Increasing muscle tone, stretching the muscles, strengthening the bones and ligaments, while preventing postural disorders can be done effortlessly with the Ella.

The Ella is a 4-in-1 stander, which can accommodate full range from supine, upright, abduction and prone stander.



The comfortable supports, functional versatility and ease of use provide facility to the everyday life of families of children with disabilities.

The Ella is a 4-in-1 stander, which can accommodate full range from supine, through to upright and prone standing. It is supremely adaptable to client individuality with smart ergonomics and easy setup.

With a 90° stepless tilt range, powered with an electric actuator, the standing angle can be determined very precisely

# WHY USE THE ELLA?



## Benefits for the client

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Assisted standing programs are employed as part of the postural management approach for children through to adults who are unable to independently maintain well aligned standing or who have limited mobility in the upright position.

With the Ella, everyday standing training is simple and easy. Even the setup process is simple and with the initial adjustment to measures done, the finalizing adjustments can be done while the client is in the stander.

The user benefits from the versatile standard functionality in a way that few products can match.

Standing height is close to what it would be naturally, making interaction with peers easier. This is made possible by the base structure with an open centre in the front.

## Benefits for the therapist

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Only one tool required for setup and adjustments. The Ella is a reliable, low-maintenance stander, with intuitive functions and simple adjustments.

Once a need is recognized, the Ella is easily adapted to that specific need, saving time and effort.

The lifting height, meaning the height from the floor to the support surfaces in horizontal position for client transfer, is optimized for easy operation, while maintaining a good balance for the product in all standing angles. The product footprint is small, saving floor space in use.

Switching between supine and prone setup does not require replacement of any components. The head rest is the only component separating the two.

## SUPINE POSITION

We can use the Ella with the range of posterior supports to allow the supine positions, useful for low tone, where poor head or trunk control is a problem, encouraging the learning of a more stable standing position, encouraging a more upright position as tolerance allows and improves.



## PRONE POSITION

We can use the Ella with the range of anterior supports to achieve an active and dynamic position when in prone. Research demonstrates that when positioned either in an upright close to neutral position or tilted moderately in to a prone angle we can maximise the benefits to spinal extension, create benefits for increasing bone density and growth, as well as providing an optimal position to allow a stretch of the muscle mass, and play a part in preventing contractures. Functional implications and participation is also maximised, allowing interaction in multiple environments, home, classroom, and otherwise, facilitating occupation in the prone position.



# KEY FEATURES

## EASE OF USE

- Only one tool (included with the product) needed for the setup and full adjustment
- The base folds for compact storage and transport
- Intuitive and logical adjustments make adaptations exceptionally easy

## COMFORT

- Soft padding and comfortable upholstery
- Fully adaptable supports ensure a good standing position

## VERSATILITY

- Prone and supine standing with simple and quick switching
- Advanced leg and foot positioning meets the most demanding needs

## PRECISION

- Individually adjustable components adapt to very specific needs
- 90° stepless tilt powered function



# DETAILS



## Mobile, foldable base

The base of the Ella is foldable for compact storage and transport. The upright column with all supports is easily lifted off the base and the folding mechanism requires only the loosening, not removing, of two screws.

With four locking castors with ball bearings, the Ella is easy to move along the floor and over obstacles up to 3cm high. Higher than that requires some help with lifting.



The tilt is operated by handset (powered) and is stepless, meaning that you can set the angle to any desired position between 0° and 90°.

The height of the base is optimized for the foot rests to be as near to the floor as possible in upright position, while maintaining a low height for the column with supports when in horizontal position.

Access to the patient is made easy by making the front of the base frame open and having indented bends on the sides. The open front also allows the center column, and therefore the foot rests, to reach lower toward the floor.



## Upright column

The upright column is a custom-made aluminium extrusion with channels for attaching all the supports and accessories. The channels run through the full length of the column, allowing all components to be positioned freely, in relation to each other.

Attachment of the upright column to the base is very simple, with drop-in slots and one to two tightening screws, depending on product size.

## Foot rests

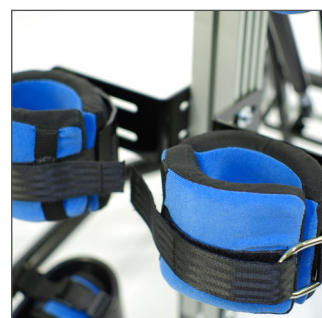
The feet rest in sandals with two straps to keep the feet in place. The brackets, on which the sandals are attached, are used to position the sandals and adjust all angles as needed. Possible angle adjustments are flexion, dorsiflexion, supination, pronation (which enables leg abduction together with the width adjustment) and rotation around the upright axis, allowing the sandal to be turned around between supine and prone standing.



The sandals have high edges on the sides and back to support the heels and to prevent slip-off.

## Knee supports

The Ella comes with knee supports that are comfortable, quick to fasten and provide excellent support. Comfortable paddings around the knee are tightened and fastened with a strap that is very easy to fasten with one hand, while holding the leg with the other hand; a recurring situation when securing the client into the stander.



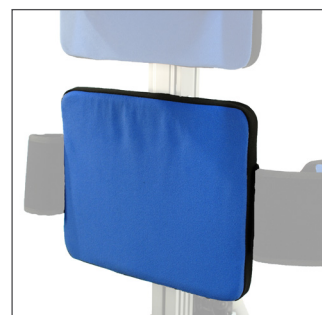
The knee supports can be adjusted in width, height and angles for knee flexion as well as leg abduction.

For extra leg control, an additional larger knee support can be attached above the original to control the thigh. This is especially useful in cases with a lot of knee flexion to relieve some of the pressure on the knee.

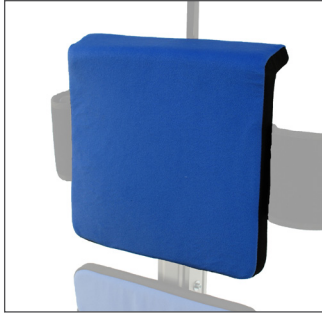
The knee supports can be used as they are for both supine and prone standing, there is no need to turn them around in any way.

## Pelvic support

The pelvic support is positioned, as the name suggests, at the height of the pelvis. The four different sizes are dimensioned for each size, although they can be used in cross-sizing.



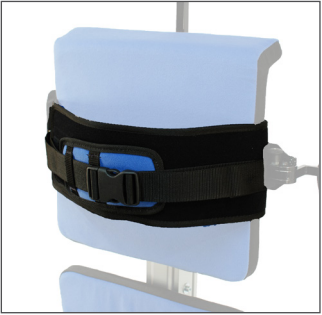
An optional de-rotational pelvic support is available, with the possibility to adjust the depth and angle around the lateral and vertical axis.



## Thoracic trunk support

With additional padding on the top edge to add comfort in prone position, the thoracic trunk support differs from the pelvic support.

As with the pelvic support, the optional de-rotational mechanism is available also for the thoracic trunk support, making the Ella exceptionally adaptable to any postural challenges.



## Belts

A belt with good support and a comfortable fit is used for both pelvic and thoracic trunk control. The belt goes around the trunk inside the lateral supports, which allows for a firm fit and prevents rotation of the trunk.

The belts have both hook & loop and buckle fastening, with 2-way adjusting in the front.



## Lateral trunk supports

A range of lateral supports is available to further enhance the support of the trunk. Options vary from rigid to swing-away and swing-away flexible laterals. All are available in the standard in-set version and a straight version, which allows some extra width adjustment for the pelvis and thoracic trunk.

The flexi laterals curve around the trunk to provide a secure feeling with a soft, yet firm touch, replicating the support given by the hands of a parent or therapist holding the trunk.



The swing-away mechanism makes transfers easier by swinging the lateral supports out of the way up to 180 degrees when getting the client either in or out of the stander.

All lateral supports are individually height, width and angle adjustable around the anteroposterior axis.



## Tray

For assistance in therapeutic activities, the Ella comes with a tray that is height, depth and angle adjustable. As an option, you can choose a tray with a bowl.

The tray is made of moulded ABS and is available in three sizes.

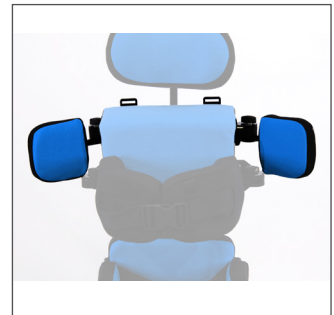


## Head rest

Support for the head and neck is provided by a head rest. It is adjustable in height, depth and due to a ballrod fastening, in all angles.

The head rest is available in 10" and 14" widths.

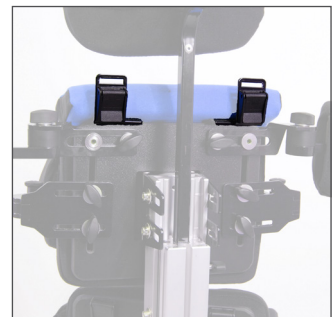
The head rest hardware; vertical and horizontal bars, are adaptable with a wide range of commonly used special head rests. The horizontal bar can be replaced with any 12x12mm or ½ x ½ inch bar.



## Shoulder protractors

Sometimes it is useful, or even necessary, to block the arms from throwing backwards and to push the shoulders forward. The shoulder protraction pads are width and angle adjustable, allowing the shoulders to be positioned as required.

These are only used in supine standing. Chest harness brackets are included with the shoulder protractors.

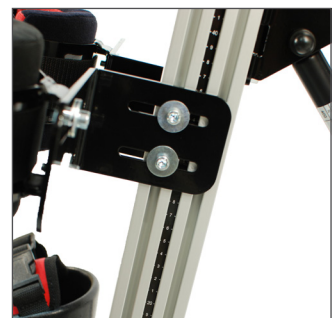


## Chest harness brackets

Using a chest harness will allow more control for the shoulders, by retracting against the thoracic trunk support and/or the shoulder protractors. As with the protractors, the chest harness is also mainly used in supine standing.

While they are included with the shoulder protractors, the chest harness brackets are also available on their own.

The set includes the brackets with cam locks as well as cam locks for the lower harness fastening on the top of the pelvic support plate.



## Measure tape on upright extrusion

For quick setup with multiple users for one stander, a measure tape on the side of the upright extrusion comes in handy. This allows the therapist or parent to position the supports to the correct height for a specific individual's setup.

## Tilt angle indicator

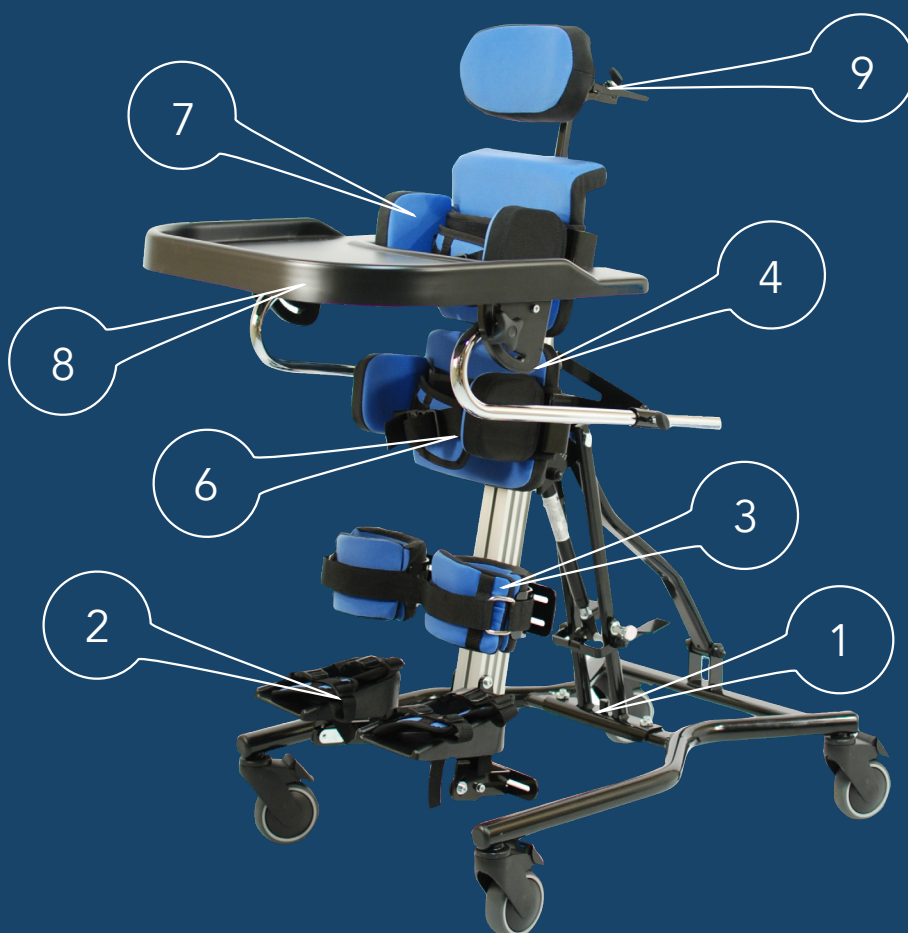
To quickly gauge the angle in which the stander is tilted, a tilt angle indicator is available for sizes 1 through 3.



# STANDARD

## STANDARD SETUP OF ELLA 4-IN-1 INCLUDES

Pos.	Itemised Description
1	Mobile base with powered tilt function, abduction set, four lockable castors, upright column and adjustment brackets for the feet and knees.
2	Sandals
3	Knee Cups with Buckle Strap
4	Pelvic Support
5	Trunk Support
6	Belt
7	Straight Laterals
8	Tray
9	Headrest with Hardware
10	Measuring Tape on Upright Extrusion
11	Tilt Angle Indicator



Ella 4-In-1 Complete Product Codes		Size 1	Size 2	Size 3	Size 4
Powered	Standard	5221-0020-000	5222-0020-000	5223-0020-000	5224-0020-000
	Complex	5221-0030-000	5222-0030-000	5223-0030-000	5224-0030-000

# COMPLEX

## COMPLEX SETUP OF ELLA 4-IN-1 INCLUDES

Pos.	Description
1	Mobile base with powered tilt function, abduction set, four lockable castors, upright column and adjustment brackets for the feet and knees.
2	Sandals 184cm x 83cm
3	100mm Diameter Buckle Strap Knee Cups
4	De-rotational Pelvic Support
5	De-rotational Trunk Support
6	Belt W100/L450+380mm
7	Straight Swing-Away
8	Straight Flexi-Pad Swing-Away
9	Tray (Not Shown)
10	10" Head Rest with Hardware
11	Shoulder Protraction Pads
12	Harness Fitting Kit (Not Shown)
13	Measuring Tape on Upright Extrusion
14	Tilt Angle Indicator



Ella 4-In-1 Complete Product Codes		Size 1	Size 2	Size 3	Size 4
Powered	Standard	5221-0020-000	5222-0020-000	5223-0020-000	5224-0020-000
	Complex	5221-0030-000	5222-0030-000	5223-0030-000	5224-0030-000

# FOUR SIZES

The Ella is available in four different sizes for a wide range of users.

The smallest size is for children of the age of approximately nine months through to four years, with a height range of 60 – 95 cm and a maximum weight of 30 kg.

For children from three years to seven years of age, size 2 provides a height range of 90 – 130 cm and a maximum user weight of 40 kg.

Going forward to the larger stander, size 3 stretches from 120 to 155 cm and carries a 55 kg user.

The largest one, size 4, grows from 130 to 180 cm in user length and supports a maximum weight of 80 kg. Size 4 is always equipped with a powered actuator tilt, in order to maintain the balanced operation.

	Size 1	Size 2	Size 3	Size 4
Age	0 - 4 yrs	3 - 7 yrs	6 - 12 yrs	11 - 18 yrs
Height	60 - 95 cm	90 - 130 cm	120 - 155 cm	130 - 180 cm
Max weight	30 kg	40 kg	55 kg	80 kg

# FOUR COLOURS

The Ella is available in one colour currently.

The Standard colour for New Zealand is Blue.



# SPECIALISED BUILDS

While the standard setup is sufficient in a majority of cases, there are additional accessories available for further precision and support.

It is possible to completely customize your stander with the different modules in order to ensure a perfect fit.

To place an order for standard setup products, refer to the product codes, refer to page 10.









# TECHNICAL SPECIFICATION







## Ella standing frame

Product standard setup dimensions	Size 1		Size 2		Size 3		Size 4	
	min	max	min	max	min	max	min	max
Dimension								
User height [mm]	600	950	900	1300	1200	1550	1300	1800
Max user weight [kg]	30		40		55		80	
Power assisted tilt	Yes		Yes		Yes		Yes	
Base width [mm]	580		580		702		752	
Base length [mm]	750		750		1000		1180	
Pivot width [mm]	1000		1000		1350		1450	
Castor height (space for hoist skis) [mm]	140		140		140		140	
Castor diameter [mm]	100		100		100		100	
Height in upright position, floor to top of head rest [mm]	970	1100	1040	1430	1280	1630	1460	1880
Height in horizontal position to lateral support edge [mm]	810		890		940		950	
Height in horizontal position to trunk support pad surface [mm]	710		790		790		810	
Supine angle adjustment	0°	90°	0°	90°	0°	90°	0°	90°
Prone angle adjustment	0°	90°	0°	90°	0°	90°	0°	90°
Tray size WxL (L from cutout edge to front edge [mm])	500 x 280		550 x 330		610 x 350		610 x 350	
Tray angle adjustment supine	40°		40°		40°		40°	
Tray angle adjustment prone	45°		45°		45°		45°	
Trunk pad size [mm]	200 x 150		250 x 200		280 x 240		340 x 280	
Trunk width std inrig laterals [mm]	120	200	170	250	190	300	250	410
Trunk width opt straight laterals [mm]	160	240	210	290	250	360	310	470
Hip abduction angle per side	0°	18°	0°	18°	0°	18°	0°	18°
Knee cuff width (inside padding) [mm]	80		100		100		150	
Foot plate angle, plantar & dorsiflexion	28°	14°	28°	14°	28°	14°	28°	14°
Foot plate angle, pronation & supination	18°	14°	18°	14°	18°	14°	18°	14°
Foot plate angle rotation around vertical axis	360°		360°		360°		360°	
Sandal internal dimensions [mm]	83 x 134		95 x 184		114 x 235		114 x 235	
Foot plate to top of head rest [mm]	600	850	740	1300	1040	1600	1075	1800
Foot plate to top of trunk pad [mm]	430	680	570	975	800	1280	900	1500
Foot plate to top of pelvic pad [mm]	300	540	475	785	500	1040	625	1225
Foot plate to top of knee cup [mm]	140	450	180	550	200	650	250	850
Foot plate to floor [mm]	135	-	135	-	150	-	150	-
Product weight with powered tilt [kg] (standard setup)	32		35		38		47	

# ORDER INFORMATION

For a customized order, build it with the following product codes. Please note that belts and lateral supports are used for both pelvic and thoracic trunk supports, so two belts and two pairs of laterals are required.

Diagram	Description	Product	Unit	
Mobile base - includes base, castors, tilt, upright column, foot and knee brackets				
	Power tilt	Size 1 base with power tilt	5220-0141-000	pcs
		Size 2 base with power tilt	5220-0142-000	pcs
		Size 3 base with power tilt	5220-0143-000	pcs
		Size 4 base with power tilt	5220-0144-000	pcs
Foot rests - includes sandals with straps				
	Size 1	Sandals 134x76cm	5220-6071-000	pr
	Size 2	Sandals 184x83cm	5220-6072-000	pr
	Size 3	Sandals 235x114cm	5220-6073-000	pr
Knee supports - includes knee cups, pads and straps				
	Size 1	Diameter 80mm knee cups	5220-1761-000	pr
	Size 2	Diameter 100mm knee cups	5220-1762-000	pr
	Size 3	Diameter 120mm knee cups	5220-1763-000	pr
Pelvic support - includes slide extrusion, back plate, and pad				
	Standard	Pelvic support size 1	5220-1911-000	pcs
		Pelvic support size 2	5220-1912-000	pcs
		Pelvic support size 3	5220-1913-000	pcs
		Pelvic support size 4	5220-1914-000	pcs
	"De-rotational (depth adj., tilt & rotation)"	De-rotational pelvic support size 1	5220-1941-000	pcs
		De-rotational pelvic support size 2	5220-1942-000	pcs
		De-rotational pelvic support size 3	5220-1943-000	pcs
		De-rotational pelvic support size 4	5220-1944-000	pcs
Trunk support - includes slide extrusion, back plate and pad				
	Standard	Trunk support size 1	5220-2911-000	pcs
		Trunk support size 2	5220-2912-000	pcs
		Trunk support size 3	5220-2913-000	pcs
		Trunk support size 4	5220-2914-000	pcs
	"De-rotational (depth adj., tilt & rotation)"	De-rotational trunk support size 1	5220-2961-000	pcs
		De-rotational trunk support size 2	5220-2962-000	pcs
		De-rotational trunk support size 3	5220-2963-000	pcs
		De-rotational trunk support size 4	5220-2964-000	pcs
Belt with velcro and buckle - for pelvic and trunk support				
	Size 1	Belt W75/L400+330mm	5220-6821-000	pcs
	Size 2	Belt W100/L450+380mm	5220-6822-000	pcs
	Size 3	Belt W100/L510+410mm	5220-6823-000	pcs
	Size 4	Belt W125/L610+510mm	5220-6824-000	pcs

Lateral supports - includes hardware and pads - for pelvic and trunk support				
	Standard	Size 1 laterals inset 20mm per side	5220-3010-000	pr
		Size 1 straight laterals	5220-3011-000	pr
		Size 2 laterals inset 20mm per side	5220-3020-000	pr
		Size 2 straight laterals	5220-3021-000	pr
		Size 3 laterals inset 30mm per side	5220-3030-000	pr
		Size 3 straight laterals	5220-3031-000	pr
	Swing-away	Size 1 swing-away inset 27mm per side	5220-3310-000	pr
		Size 1 swing-away straight	5220-3321-000	pr
		Size 2 swing-away inset 27mm per side	5220-3320-000	pr
		Size 2 swing-away straight	5220-3321-000	pr
		Size 3 swing-away inset 27mm per side	5520-3330-000	pr
		Size 3 swing-away straight	5520-3331-000	pr
	Flexi-pad (swing-away)	Size 1 Flexi-pad swing-away inset 27mm per side	5220-3410-000	pr
		Size 1 Flexi-pad swing-away straight	5220-3421-000	pr
		Size 2 Flexi-pad swing-away inset 27mm per side	5220-3420-000	pr
		Size 2 Flexi-pad swing-away straight	5220-3421-000	pr
		Size 3 Flexi-pad swing-away inset 27mm per side	5220-3430-000	pr
		Size 3 Flexi-pad swing-away straight	5220-3431-000	pr
Tray - includes tray, tray bars and tray holder				
	Standard	Size 1 tray	5220-7121-000	pcs
		Size 2 tray	5220-7122-000	pcs
		Size 3 tray	5220-7123-000	pcs
	With bowl	Size 1 tray with bowl	5220-7181-000	pcs
		Size 2 tray with bowl	5220-7182-000	pcs
		Size 3 tray with bowl	5220-7183-000	pcs
Head rest - includes head rest, upholstery horizontal bar and vertical bar				
	Size 1	Head rest 10" with hardware	5220-4610-000	pcs
	Size 2	Head rest 14" with hardware	5220-4614-000	pcs
Shoulder protraction pads - includes pads and harness fitting kit				
	Size 1	Shoulder protraction pads size 1	5220-2751-000	pr
	Size 2	Shoulder protraction pads size 2	5220-2752-000	pr
Harness fitting kit - includes brackets and cam locks				
	One size	Harness fitting kit	5220-6150-000	pcs
Component position indicator marking				
	Size 1	Measure tape on upright extrusion	5220-8121-000	pcs
	Size 2	Measure tape on upright extrusion	5220-8122-000	pcs
	Size 3	Measure tape on upright extrusion	5220-8123-000	pcs
	Size 4	Measure tape on upright extrusion	5220-8124-000	pcs
Tilt angle indicator (for size 1, 2 and 3)				
	-	Tilt angle indicator	5220-8130-000	pcs