LOWER EXTREMITY ULTRAFLEX CASTING GUIDELINES

DO…

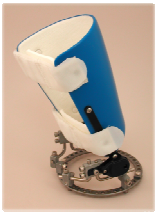
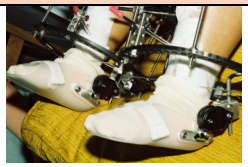
- Record ALL extremity measurements on the Ultraflex Fabrication Order Form. Also, mark ALL necessary anatomical landmarks on the stockinet before casting. Mark and note areas for added relief such as open wounds, grafts, and bony prominences.
- Place the cutting strip on the opposing side of where shells will reside and away from bony landmarks or other areas needing relief. Exp.: Cutting strip should be placed on anterior leg when casting for a KO with shells that will be posterior
- Capture 2/3 to 3/4 of each limb segment in order to maximize leverage inferior and superior to the joint axis
- Use fiberglass taping material whenever possible.
- Wrap the cast between 2 and 3 layers of thickness.
- Allow the cast to completely set before boxing and shipping.
- Use appropriate padding and box size to avoid distortion during shipping.

DO NOT…

- Distort the cast while trying to achieve additional correction in the mold either on or off the patient. Cast corrections will be done by the Ultraflex lab at the request of the practitioner.
- Wrap the cast in less than 2 or more than 3 layers of thickness.
- Use soft casting materials.

Ultraflex Lower Extremity Areas of Specialty

Indication:	NEUROLOGIC	NEUROLOGIC	NEUROLOGIC	NEUROLOGIC	NEUROLOGIC
Diagnoses:	Hemiplegia	Diplegia, Quadriplegia or Hemiplegia	Diplegia or Quadriplegia	Pediatric Diplegia or Quadriplegia	TBI
Problem:	Tight Soleus ONLY	Tight Soleus AND Gastrocnemius	Tight Hamstrings	Tight hip adductors, hamstrings and gastroc-soleus	Gastroc-soleus and intrinsic foot spasticity; Equino-varus deformity that cannot be corrected with ankle in maximal plantar flexion.
Solution:	AFO SMO CM	KAFO CM2 or KAFO CM3*	KAFO CM1 or KAFO CM2*	KAFO CM4 – HOPe1	AFO Lively
					
Casting Guidelines:	**1.** Cast in rear, mid and forefoot neutral – plantar flex foot as needed to obtain this optimum position ("Lively" design recommended when this cannot be obtained) **2.** Cast from end of toes to just below the knee	**1.** Cast in rear, mid and forefoot neutral – PLANTARFLEX AS NEEDED **2.** Knee should be extended as much as possible **3.** Cast from end of toes to perineum	**1.** Cast leg with knee flexed **2.** Cast in rear, mid and forefoot neutral + ankle at 90º **3.** Cast from end of toes to perineum	**1.** Cast each leg individually and segmentally **2.** Cast in rear, mid and forefoot neutral + ankle at 90º **3.** Knees should be casted in maximum extension **4.** Cast from end of toes to perineum	**1.** With hand pressure, cast in maximum plantar flexion **2.** Correct rear, mid and forefoot to as close to neural as possible. **3.** Some subtalar motion is allowed.
Notes:	A molded inner boot is recommended to properly support the arches & to avoid mid foot collapse during stretching.	Ultraflex recommends using a DYNAMIC JOINT AT THE ANKLE ONLY for this instance. The knee should be solid or hinged with a static ROM joint.	Ultraflex recommends using a DYNAMIC JOINT AT THE KNEE ONLY for this instance. The ankle should be solid or hinged with a static ROM joint.	Recommended for patients weighing ≤110lbs. Commonly used as early intervention for children 2-5 yrs. old.	Ultraflex recommends a heel strap. Can use clamshell on mid-foot.

Indication:	GAIT MGMT.	COMPLEX ORTHO	COMPLEX ORTHO	COMPLEX ORTHO	COMPLEX ORTHO
Diagnoses:	Post Stroke, Post Polio, Drop Foot, Crouch Gait	Total Knee Replacement or Knee Trauma	Ilizarov limb lengthening	Ilizarov limb lengthening	Below the Knee Amputee
Problem:	Lower extremity weakness causing knee and or ankle instability	Post op loss of extension and/or flexion in early rehab.	Maintain soft tissue extensability throughout extended rehab	Maintain soft tissue extensability throughout extended rehab	Restore full or near full extension sufficient to fit BK prosthesis.
Solution:	USS KAFO or AFO	KO CM1	KO IL1	AFO IL1	BKA CM
					
Casting Guidelines:	**1.** AFO portion should be casted with rear, mid and forefoot in neutral + ankle at or near 90° **2.** KO portion should be casted with knee in no more than 5° flexion	**1.** Cast in comfortable midrange from ankles to just below perineum for KO CM.	**1.** Cast full limb segment above or below rings to emcompass joint articulation if possible	**1.** Cast full limb segment above or below rings to emcompass joint articulation if possible	**1.** Capture complete residual limb and continue on to just below perineum for maximum leverage. **2.** cast in comfortable mid-range knee flexion
Notes:	A partial weight bearing cast is preferred Post Stroke, Post Polio, Drop Foot, Crouch Gait.	Do not place casting strip directly over TKA suture line suggest more lateral anterior placement.	**Clearly mark** knee joint axis on cast.	**Clearly mark** ankle joint axis on cast.	Clearly mark areas requiring relief on residual limb.

Call Ultraflex Clinical Technical Support at 1-800-220-6670 with any questions.