FORM 1: PATIENT EVALUATION

Date: _____

Patient Name: _____ **Patient ID:** _____

Age: _____ **Height:** _____ **Weight:** _____ **Diagnosis:** _____ **Onset Date:** _____

Pertinent Medical History:

ROM	Left	Right
Shoulder Extension		
Elbow Extension		
Wrist Extension		
Hip Flexion		
Hip Extension		
Knee Flexion		
Knee Extension		
Ankle DF w/ Knee Ext		
Knee Flex to achieve 0^{o} DF		

ROM COMMENTS:

CRITICAL ROM REQUIREMENTS:

- **Hip Flexion** [100°]
- **Knee Extension** [-12° to 0°]
- **Hip Extension** [-17° to 7° or more]
- **Ankle Dorsiflexion** [0° or more]
- **Knee Flexion to achieve 0° Dorsiflexion** [12° max]
- **Shoulder Extension** [50° required for crutch use]

STRENGTH	Left	Right
Shoulder Flexion		
Shoulder Extension		
Elbow Flexion		
Elbow Extension		
Wrist Extension		
Gross Grip Strength		

UE STRENGTH COMMENTS:

Hip Flexion		
Hip Extension		
Hip Abduction		
Knee Flexion		
Knee Extension		
Ankle Dorsiflexion		
Ankle Plantarflexion		

LE STRENGTH COMMENTS:

SPASTICITY	Left	Right
Hip Flexors/Extensors		
Hip Adductors		
Knee Flexors/Extensors		
Ankle Plantar Flexors		
Ankle Invertors		

SPASTICITY COMMENTS:

Transfer Function:

Gait Function/Devices:

FUNCTION COMMENTS:

***After completing Ekso Evaluation Forms 1 and 2, use this information to complete Form 4: Patient Screen to determine if patient is safe and appropriate for an EksoNR trial**

FORM 2: EKSO SIZING LOG **Date:** _____

Patient Name: _____ **Patient ID:** _____

STANDING		SUPINE				SITTING			
Hip Width – A Standing (if able) or Lying Down		**Upper Leg – B** Buttocks to Top of the Flexed Knee				**Lower Leg – C** Bottom of Shoe to Top of Flexed Knee			
PATIENT MEASUREMENT	**EKSO VALUE**	**PATIENT MEASUREMENT**		**EKSO VALUE**		**PATIENT MEASUREMENT**		**EKSO VALUE**	
		LEFT	**RIGHT**	**LEFT**	**RIGHT**	**LEFT**	**RIGHT**	**LEFT**	**RIGHT**
HIP ABDUCTION		**EKSO VALUE SET**				**EKSO VALUE SET**			

If a patient has an **upper leg length discrepancy** greater than a half-inch (>0.5”/ >1.3cm) or a lower leg discrepancy greater than three-quarters of an inch (>.75” / >1.90cm), EksoNR use is not recommended and the patient should fail screening.

Regardless of patient leg length discrepancies, the **EksoNR must be set to the same settings on each leg** to operate and balance correctly.

An **upper leg length discrepancy** of a half-inch (≤0.5”/ ≤1.3cm) or less may be accommodated by averaging the Ekso values of the right and left upper leg (e.g., if the right upper leg Ekso value is 25 and the left upper leg Ekso value is 29; the upper leg value may be averaged to 27).

A **lower leg length discrepancy** of three-quarters of an inch (≤0.75” / ≤1.90cm) or less can be accommodated with a shoe lift, if deemed appropriate by the physical therapist.

Be aware that the Ekso values provided in Form 3 are recommended starting points and may need to be adjusted based on visual assessments after donning the device.

Ankle Stiffness Recommendations (only use as a guide):

Stiffness	1	2	3	4
	Strong/Normal plantarflexion strength	**Fair/Good** plantarflexion strength and weight under 130 lbs (60 kg)	**Fair** plantarflexion strength and weight 130-180 lbs (60-80 kg)	**Poor/Fair** plantarflexion strength and weight 180-220 lbs (80-100 kg)
			Absent plantarflexion strength and weight **under** 140 lbs (64 kg)	**Absent** plantarflexion strength and weight **over** 140 lbs (64 kg)

LEFT ANKLE STIFFNESS SETTING		**RIGHT ANKLE STIFFNESS SETTING**	

Ankle Angle Recommendations (only use as a guide):

Knee flexion angle	Ankle angle setting
0, 1, or 2 degrees	-3
3 or 4 degrees	-2
5 or 6 degrees	-1
7 or 8 degrees	0
9 or 10 degrees	1
11 or 12 degrees	2

EksoNR Ankle angle setting: (Must be the same setting on each leg)	

FORM 3a: EKSO SIZING CONVERSION CHART (U.S. and Imperial Systems)

Hip Width - A		
PATIENT MEASUREMENT	EKSO VALUE	HIP ABDUCTION
<14	**0**	**1**
14	**0**	
14 1/8	**1**	
14 1/4	**1**	
14 3/8	**2**	
14 1/2	**3**	**0**
14 5/8	**3**	
14 3/4	**4**	
14 7/8	**4**	
15	**5**	
15 1/8	**6**	
15 1/4	**6**	
15 3/8	**7**	
15 1/2	**8**	
15 5/8	**8**	
15 3/4	**9**	
15 7/8	**9**	
16	**10**	
16 1/8	**11**	**-1**
16 1/4	**11**	
16 3/8	**12**	
16 1/2	**13**	
16 5/8	**13**	
16 3/4	**14**	
16 7/8	**14**	
17	**15**	
17 1/8	**16**	
17 1/4	**16**	
17 3/8	**17**	**-2**
17 1/2	**18**	
17 5/8	**18**	
17 3/4	**19**	
17 7/8	**19**	
18	**20**	

Upper Leg - B	
PATIENT MEASUREMENT	EKSO VALUE
20	**0**
20 1/8	**1**
20 1/4	**2**
20 3/8	**3**
20 1/2	**4**
20 5/8	**5**
20 3/4	**7**
20 7/8	**8**
21	**9**
21 1/8	**10**
21 1/4	**12**
21 3/8	**13**
21 1/2	**14**
21 5/8	**15**
21 3/4	**17**
21 7/8	**18**
22	**19**
22 1/8	**20**
22 1/4	**21**
22 3/8	**23**
22 1/2	**24**
22 5/8	**25**
22 3/4	**26**
22 7/8	**28**
23	**29**
23 1/8	**30**
23 1/4	**31**
23 3/8	**33**
23 1/2	**34**
23 5/8	**35**
23 3/4	**36**
23 7/8	**37**
24	**39**
24 1/8	**40**

Lower Leg - C	
PATIENT MEASUREMENT	EKSO VALUE
19	**0**
19 1/8	**1**
19 1/4	**2**
19 3/8	**3**
19 1/2	**4**
19 5/8	**5**
19 3/4	**6**
19 7/8	**7**
20	**8**
20 1/8	**9**
20 1/4	**10**
20 3/8	**11**
20 1/2	**12**
20 5/8	**13**
20 3/4	**14**
20 7/8	**15**
21	**16**
21 1/8	**17**
21 1/4	**18**
21 3/8	**19**
21 1/2	**20**
21 5/8	**21**
21 3/4	**22**
21 7/8	**23**
22	**24**
22 1/8	**25**
22 1/4	**26**
22 3/8	**27**
22 1/2	**28**
22 5/8	**30**
22 3/4	**31**
22 7/8	**32**
23	**33**
23 1/8	**35**
23 1/4	**36**
23 3/8	**37**
23 1/2	**38**
23 5/8	**39**
23 3/4	**40**
23 7/8	**41**
24	**42**
24 1/8	**43**
24 1/4	**44**
24 3/8	**45**
24 1/2	**46**
24 5/8	**47**
24 3/4	**48**
24 7/8	**49**
25	**50**

***Ideal width between feet when walking is ~1 inch/2.5cm**

***Modifications from suggested Hip Abduction value may be reflective of patient spasticity or decreased strength in stance support**

FORM 3b: EKSO SIZING CONVERSION CHART (Metric System)

Hip Width - A

PATIENT MEAS.	EKSO VALUE	HIP ABD	PATIENT MEAS.	EKSO VALUE	HIP ABD
<35.8	**0**		40.8	**10**	
35.8	**0**		41	**11**	
36	**1**		41.2	**11**	
36.2	**1**	**1**	41.4	**11**	
36.4	**2**		41.6	**12**	
36.6	**2**		41.8	**12**	
36.8	**2**		42	**13**	
37	**3**		42.2	**13**	**-1**
37.2	**3**		42.4	**13**	
37.4	**4**		42.6	**14**	
37.6	**4**		42.8	**14**	
37.8	**4**		43	**15**	
38	**5**		43.2	**15**	
38.2	**5**		43.4	**15**	
38.4	**6**		43.6	**16**	
38.6	**6**	**0**	43.8	**16**	
38.8	**6**		44	**17**	
39	**7**		44.2	**17**	
39.2	**7**		44.4	**17**	
39.4	**8**		44.6	**18**	
39.6	**8**		44.8	**18**	**-2**
39.8	**8**		45	**19**	
40	**9**		45.2	**19**	
40.2	**9**		45.4	**19**	
40.4	**10**		45.6	**20**	
40.6	**10**				

Upper Leg - B

PATIENT MEAS.	EKSO VALUE	PATIENT MEAS.	EKSO VALUE
51	**0**	56.4	**21**
51.2	**1**	56.6	**22**
51.4	**2**	56.8	**23**
51.6	**2**	57	**23**
51.8	**3**	57.2	**24**
52	**4**	57.4	**25**
52.2	**5**	57.6	**26**
52.4	**6**	57.8	**26**
52.6	**6**	58	**27**
52.8	**7**	58.2	**28**
53	**8**	58.4	**29**
53.2	**9**	58.6	**30**
53.4	**9**	58.8	**30**
53.6	**10**	59	**31**
53.8	**11**	59.2	**32**
54	**12**	59.4	**33**
54.2	**12**	59.6	**33**
54.4	**13**	59.8	**34**
54.6	**14**	60	**35**
54.8	**15**	60.2	**36**
55	**16**	60.4	**36**
55.2	**16**	60.6	**37**
55.4	**17**	60.8	**38**
55.6	**18**	61	**39**
55.8	**19**	61.2	**40**
56	**19**	61.4	**40**
56.2	**20**		

Lower Leg - C

PATIENT MEAS.	EKSO VALUE	PATIENT MEAS.	EKSO VALUE
48.0	**0**	55.8	**24**
48.2	**0**	56.0	**25**
48.4	**1**	56.2	**26**
48.6	**1**	56.4	**26**
48.8	**2**	56.6	**27**
49.0	**2**	56.8	**28**
49.2	**3**	57.0	**28**
49.4	**3**	57.2	**29**
49.6	**4**	57.4	**30**
49.8	**5**	57.6	**30**
50.0	**5**	57.8	**31**
50.2	**6**	58.0	**32**
50.4	**7**	58.2	**32**
50.6	**7**	58.4	**33**
50.8	**8**	58.6	**34**
51.0	**9**	58.8	**34**
51.2	**9**	59.0	**35**
51.4	**10**	59.2	**36**
51.6	**10**	59.4	**36**
51.8	**11**	59.6	**37**
52.0	**12**	59.8	**38**
52.2	**12**	60.0	**38**
52.4	**13**	60.2	**39**
52.6	**14**	60.4	**40**
52.8	**14**	60.6	**41**
53.0	**15**	60.8	**41**
53.2	**16**	61.0	**42**
53.4	**16**	61.2	**43**
53.6	**17**	61.4	**43**
53.8	**18**	61.6	**44**
54.0	**18**	61.8	**45**
54.2	**19**	62.0	**45**
54.4	**20**	62.2	**46**
54.6	**20**	62.4	**47**
54.8	**21**	62.6	**48**
55.0	**22**	62.8	**48**
55.2	**22**	63.0	**49**
55.4	**23**	63.2	**50**
55.6	**24**	63.4	**50**

***Ideal width between feet when walking is ~1 inch/2.5cm**

***Modifications from suggested Hip Abduction value may be reflective of patient spasticity or decreased strength in stance support**

FORM 4: PATIENT SCREENING

Date: _____

Patient Name: _____ **Patient ID:** _____ **Physical Therapist Name:** _____

***For any item that results in a "NO" answer, indicate a plan of action for determining patient appropriateness for continuing with session.**

SCREENING QUESTIONS		YES	NO	COMMENTS	PLAN*	INITIALS
ROM: Hip	**Does patient have sufficient ROM of both hips?** (5 degrees of extension; 100° of flexion)					
ROM: Knee	**Does patient have sufficient ROM of both knees?** (Full extension to 110° of flexion)					
ROM: Ankle	**Does patient have sufficient ROM of both ankles?** (0° of DF)					
ROM: Shoulder	**Does patient have sufficient ROM of both shoulders for sit <> stand with crutches?** (50° of shoulder extension) (If crutches will not be used, write N/A in comments)					
Measurement	**Do the patient's leg length and hip width measurements fit within the guidelines of the Sizing Chart?**					
	Are the legs symmetrical?					
	Does the patient weigh 220 lbs (100 kgs) or less?					
Strength	**Does patient have sufficient UE strength to safely use assistive device(s)?**					
FES	**Does patient have sufficient response to Functional Electrical Stimulation (FES) to warrant FES use with Ekso** (If not applicable, write N/A in comments)					
Spasticity	**Does patient have Modified Ashworth Scale (MAS) scores of less than three (3) in both lower extremities?**					
Mobility Skills	**Is patient independent with transfers and sitting balance?** (For donning of the Ekso)					
Medical	**Is patient free of any skin integrity (past/present) that may interfere with wearing Ekso?**					
	Is patient free of any other medical concerns that may prevent standing/walking? (Examples: orthostatic hypotension in standing, autonomic dysreflexia, LE fracture risk, high blood pressure)					
Communication	**Can patient safely follow directions and clearly express pain?** (List cognitive or language barriers in comments)					
IS IT SAFE AND APPROPRIATE TO PROCEED WITH AN EKSO TRIAL?						

FORM 5: CLINICAL DATA COLLECTION

Patient Name:	ID:	DATE:		DATE:		DATE:	
REMINDER TO CHECK SAFETY CHECKLIST		PT:		PT:		PT:	
EKSO SETUP							
(W) Hip Width Value	(A) Hip Abduction Value	W	A	W	A	W	A
(U) Upper Leg Value	(L) Lower Leg Value	U	L	U	L	U	L
Right Ankle Settings	[(S) Stiffness] / [(D) Degree]	S	D	S	D	S	D
Left Ankle Settings	[(S) Stiffness] / [(D) Degree]	S	D	S	D	S	D
(A) Abduction Free (Y/N)	(AS) Arm Sling (Y/N)	A	AS	A	AS	A	AS
Pads	(Torso / Lumbar / Foot Binding / Posterior Spinal)						
Spacers	(Tibial / Hip / Sacral / Torso / Thigh Strap Extender)						
Shoe Lift w/ Size	(L) Left / (R) Right	L	R	L	R	L	R
(AD) Assistive Device	(S) Assistive Device Settings	AD	S	AD	S	AD	S
SETTINGS MENU							
Knee Flexion							
Hip Flexion							
Pattern & Support		☐ On/High ☐ On/Low ☐ Off/High ☐ Off/Low		☐ On/High ☐ On/Low ☐ Off/High ☐ Off/Low		☐ On/High ☐ On/Low ☐ Off/High ☐ Off/Low	
Step Height		☐Low ☐ Med ☐High		☐Low ☐ Med ☐High		☐Low ☐ Med ☐High	
Step Length		☐Short ☐ Med ☐Long		☐Short ☐ Med ☐Long		☐Short ☐ Med ☐Long	
Swing Time		☐Slow ☐ Med ☐Fast		☐Slow ☐ Med ☐Fast		☐Slow ☐ Med ☐Fast	
Target Sounds		☐On ☐ Off		☐On ☐ Off		☐On ☐ Off	
STATISTICS							
Steps							
Walk Time							
Up Time							
COACH SCORECARD							
Forward Posture		☐ Good ☐ OK ☐ Poor		☐ Good ☐ OK ☐ Poor		☐ Good ☐ OK ☐ Poor	
Lateral Shift		☐ Good ☐ OK ☐ Poor ☐ Too large ☐ Too small		☐ Good ☐ OK ☐ Poor ☐ Too large ☐ Too small		☐ Good ☐ OK ☐ Poor ☐ Too large ☐ Too small	
Toe Clearance		☐ Good ☐ OK ☐ Poor		☐ Good ☐ OK ☐ Poor		☐ Good ☐ OK ☐ Poor	
Step Length		☐ Good ☐ OK ☐ Poor ☐ Too large ☐ Too small		☐ Good ☐ OK ☐ Poor ☐ Too large ☐ Too small		☐ Good ☐ OK ☐ Poor ☐ Too large ☐ Too small	
Symmetric Length		☐ Good ☐ OK ☐ Poor		☐ Good ☐ OK ☐ Poor		☐ Good ☐ OK ☐ Poor	
Symmetric Swing Time		☐ Good ☐ OK ☐ Poor		☐ Good ☐ OK ☐ Poor		☐ Good ☐ OK ☐ Poor	
Swing Speed		☐ Good ☐ OK ☐ Poor		☐ Good ☐ OK ☐ Poor		☐ Good ☐ OK ☐ Poor	
ASSISTANCE FEEDBACK		**(60 STEP)**		**(60 STEP)**		**(60 STEP)**	
Swing Assist	(L) Left / (R) Right	L	R	L	R	L	R
Min Assist	(L) Left / (R) Right	L	R	L	R	L	R
Stance Support - Hip	(L) Left / (R) Right	L	R	L	R	L	R
Stance Support - Knee	(L) Left / (R) Right	L	R	L	R	L	R
VITALS & RPE							
Blood Pressure							
Heart Rate							
SpO2							
RPE							
NOTES AND GOALS							