

NEW  
Growth



NATURAL  
Growth



# Intramedullary Skeletal Kinetic Distractor

The new ISKD from Orthofix combines the advantages of intramedullary stabilization with the mechanics of external distraction in one device, offering you the ability to lengthen up to 8cm with a simple nailing technique.

- ▲ Implanted after osteotomy, the ISKD lengthens gradually in response to normal movements of the limb. The ISKD is designed to distract when rotation occurs at the osteotomy site.
- ▲ Because the ISKD is completely internal, the potential risk of infection is reduced compared to lengthening procedures that require external pins or wires. In addition, there is no scarring from pins moving through the soft tissues.
- ▲ The ISKD is designed to lengthen for a predetermined distance and then stop. A range of sizes are available to offer lengthening for most patients.

## Indications

The ISKD is indicated for limb lengthening of the tibia and femur, and is used for:

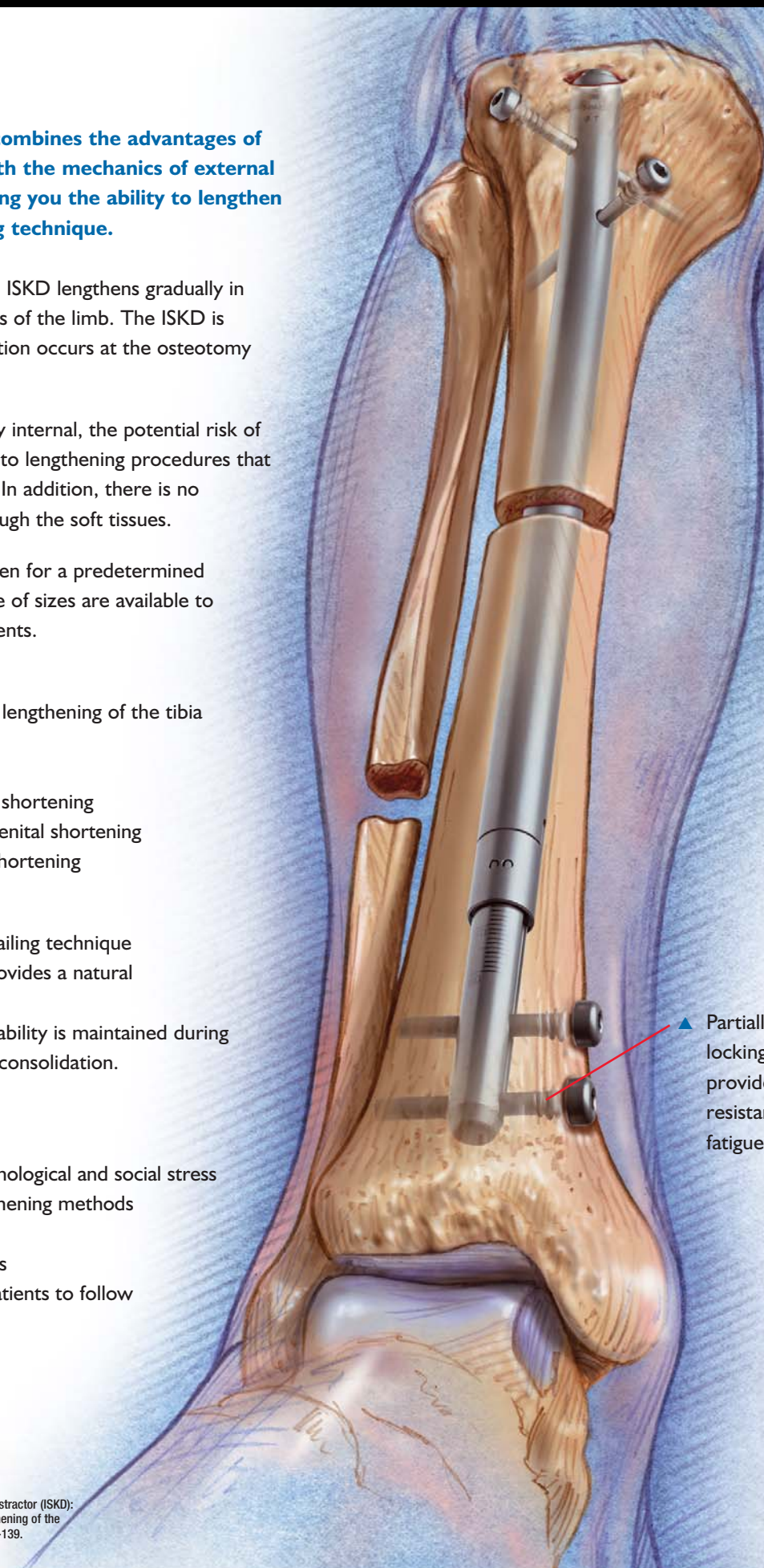
- Post-traumatic lengthening
- Lengthening following acute shortening
- Lengthening in cases of congenital shortening
- As an alternative to closed shortening

## Benefits to Surgeons

- Lengthening with a simple nailing technique
- Gradual callus distraction provides a natural lengthening process
- Mechanical alignment and stability is maintained during lengthening and throughout consolidation.
- Avoids drift to Varus/Valgus

## Benefits to Patients

- Internal device reduces psychological and social stress
- Less painful than other lengthening methods
- Minimal scarring
- No risk of pin-tract infections
- Hand held monitor allows patients to follow their lengthening progress



▲ Partially threaded locking screws provide maximum resistance to fatigue failure.

# ator For Tibial and Femoral Lengthening

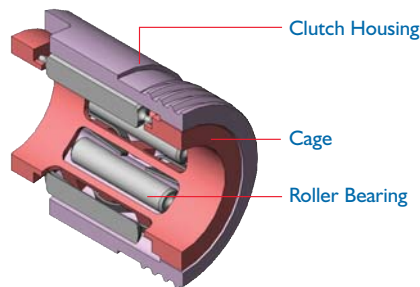
## Lengthening Mechanism

In general, the activities of everyday life combined with controlled ambulation and partial weight bearing should be adequate to produce at a rate of lengthening of 1 mm per day. By varying activity levels, the rate of lengthening can be adjusted and controlled to the desired rate. Rotational movement as small as 3 degrees causes distraction; however, movement as great as 9 degrees is possible if less frequent movement of greater magnitude is desired.

The ISKD lengthens as its distal section telescopes out from the proximal section. The drive mechanism incorporates two alternating one-way clutches connected

by an internal threaded rod. Rotational movement between the distal and proximal sections advances the threaded rod and the distal section is pushed out as the threaded rod turns.

A patented roller clutch mechanism allows the ISKD to mechanically distract without binding during the lengthening process.<sup>1</sup>

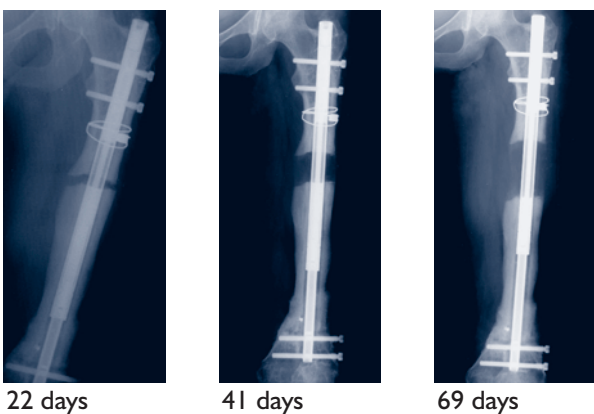


## Monitoring Lengthening

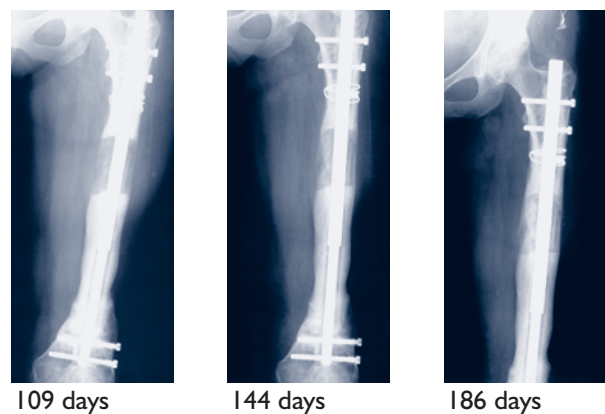
A hand held monitor with a magnetic sensor allows patients to track their lengthening progress daily. The monitor can be attached to a peripheral printer to provide hard copy print outs of patient activity, or you may download data to your PC with the custom ISKD software provided.



## Distraction Phase



## Early Consolidation Phase



## Femoral Lengtheners

ISKD Diameter (mm)	Maximum Distraction (mm)	Start Length (mm)	Max. End Length (mm)	Catalog #
12.5	50	255	305	F12-255-305
12.5	50	300	350	F12-300-350
12.5	50	345	395	F12-345-395
12.5	80	255	335	F12-255-335
12.5	80	300	380	F12-300-380
12.5	80	345	425	F12-345-425
14.5	50	255	305	F14-255-305
14.5	50	300	350	F14-300-350
14.5	50	345	395	F14-345-395
14.5	80	255	335	F14-255-335
14.5	80	300	380	F14-300-380
14.5	80	345	425	F14-345-425

Packaged sterile

## ISKD Instrument Tray Kit

Part No.	Description	Quantity
10012	3mm Allen Wrench	1
10017	6mm Allen Wrench	1
11005	4.8mm Drill Stop	2
1102101	Calibrated Drill Bit, 180mm/4.8mm	1
1102701	Calibrated Drill Bit, 280mm/4.8mm	1
1103001	Calibrated Drill Bit, 180mm/4.0mm	1
17342	Guide Bar (part A) w/Nylon Screws	1
17520	ISKD Femoral Nail Guide Bar	1
17525	External Jig Guide Bar	1
17350	3.5mm Hexagonal T-Wrench	2
17351	Locking Screw Depth Gauge	1
17354	8mm Straight Trocar	1
17355	6mm T-Wrench w/U-Joint	1
17357	13mm Spanner	1
17360	Screw Guide	3
17379	Guide Locking Screw	2
17391	Screw Adapter, Femur	1
17392	Sliding Hammer w/detachable swing arm	1
17410	Handle w/Bar Locking Screw, Tibia	1
17430	Locking Rod, Tibia	1
17440	Tibial Proximal Outrigger	1
17470	Pinted Awl	1
17491	Screw Adapter, Tibia	1
17510	Handle with Bar Locking Screw	1
17530	Locking Rod	1
17565	Drill Guide 4.8mm/80mm	1
170035	Black Handle w/Bayonet fitting	1
36017	Allen Wrench 4mm	1
450134	Steri-Tray, ISKD Instrument, Empty	1

## Tibial Lengtheners

ISKD Diameter (mm)	Maximum Distraction (mm)	Start Length (mm)	Max. End Length (mm)	Catalog #
12.5	50	215	265	T12-215-265
12.5	50	245	295	T12-245-295
12.5	50	255	305	T12-255-305
12.5	50	300	350	T12-300-350
12.5	80	255	335	T12-255-335
12.5	80	300	380	T12-300-380
13.5	50	215	265	T13-215-265
13.5	50	245	295	T13-245-295
13.5	50	255	305	T13-255-305
13.5	50	300	350	T13-300-350
13.5	80	255	335	T13-255-335
13.5	80	300	380	T13-300-380

Packaged sterile

## Tibial & Femoral Locking Screws

Shaft Diameter (mm)	Shaft Length (mm)	Thread Length (mm)	Catalog #
4.8	20	7	S4820
4.8	25	7	S4825
4.8	30	7	S4830
4.8	35	7	S4835
4.8	40	7	S4840
4.8	45	7	S4845
4.8	50	9	S4850
4.8	55	9	S4855
4.8	60	9	S4860
4.8	65	9	S4865
4.8	70	12	S4870
4.8	75	12	S4875

Packaged sterile

## Supplemental Equipment

Part No.	Description
FTM2000	ISKD Monitor
650179	Physician Manual w/Software CD

## Orthofix Products for Limb Reconstruction



**MiniRail**  
Rail Fixator



**Sheffield**  
Ring Fixator



**LRS**  
Rail Fixator



**ISKD**  
Internal Lengthener

Your Distributor is: