

# **Discussion on Injury Threshold for Pedestrian Legform Test**

# Tibia Bending Strength and Response

## Nyquist G. W. et al, 1985 (SAE, Paper No. 851728)

Tibia Bending: Strength and Response  
 Nyquist G. W. et al, 1985 (SAE 851728)

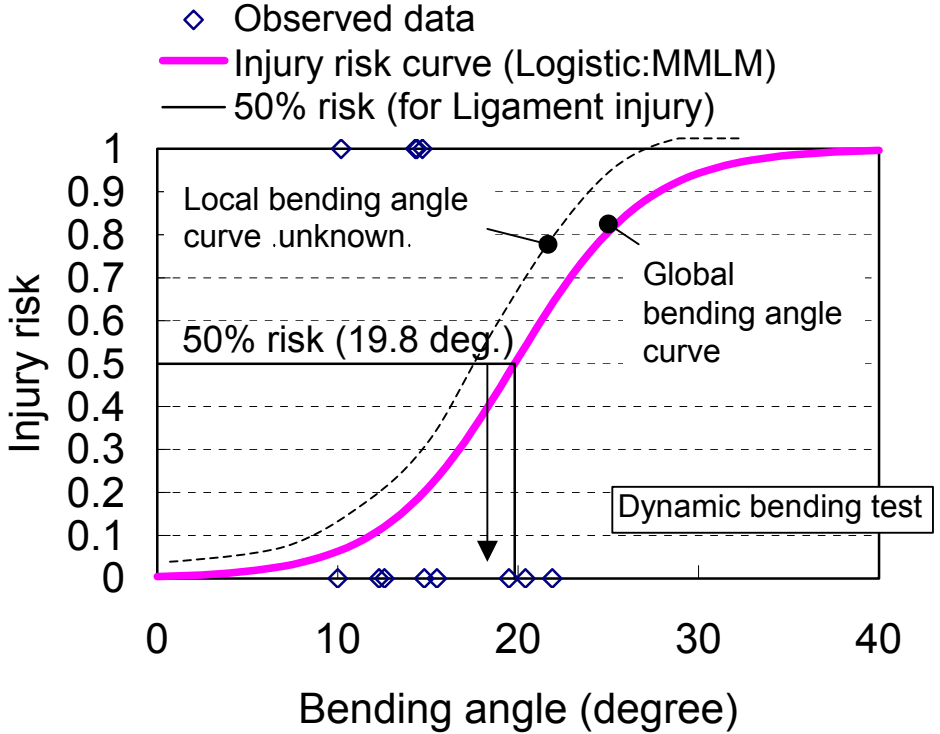
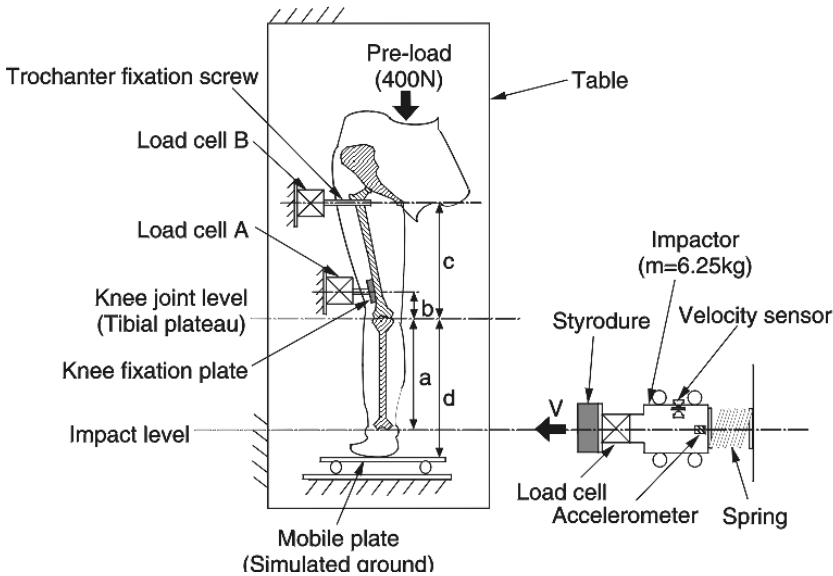
TestNo.	CadaverNo.	Sex	Age (years)	Stature (m)	Body Mass (kg)	Impact Speed (m/s)	Direction of Loading	Peak Bending Moment at Midspan (Nm) *		
118	458	M	54	1.82	68	3.5	LM	395		
124	406	M	64	1.77	82	4.2	LM	287		
126	375	M	58	1.74	73	4.2	LM	224		
127	404	M	56	1.76	79	3.7	LM	237		
129	395	M	57	1.78	99	3.7	LM	349		
132	525	M	57	1.87	45	3.8	LM	264	Ave.	10%up
147	400	M	57	1.78	84	2.9	LM	431	<b>312.4</b>	<b>343.7</b>

\* The peak values were attenuated by 10 %by filtering (CFC 60) procedure.

Proposed injury threshold for tibia bending: 350 Nm

# RECONSIDERATION OF INJURY CRITERIA FOR PEDESTRIAN SUBSYSTEM LEGFORM TEST

## - PROBLEMS OF RIGID LEGFORM IMPACTOR - Konosu A. et al, 2001 (ESV, Paper No. 263)



Proposed injury threshold for Knee bending: 20 deg.

Local bending angle: Exclude Long Bone Bending Angle
Global bending angle: Include Long Bone Bending Angle

# Local knee bending angle, Global knee bending angle

