

Evaluation of Pedestrian Lower Extremity Protection Level provided by the Flex-PLI
(for discussion)

Evaluation Method for Flex-PLI (for discussion)

Base: NHTSA Method (TRANS/WP.29/GRSP/2006/7)

Base data: PCDS

Number of pedestrians with AIS 2+ lower extremity (LE) injuries as most serious injury

Number of annual injured pedestrians	68,000 persons
Percentage at MIS 2-6 level	x 56%
Percentage where LE most serious	x 42%
total	15,994 persons

Estimated number of pedestrians with AIS2+ LE injuries addressed by regulation caused by vehicles covered by regulation

Number of annual LE MAIS 2+ injured pedestrians	15,994 persons
Percentage to knee and lower leg injuries	x 56%
Percentage sustained by vehicle type	PV x 84% LTV x 16%
Percentage of vehicle type covered by regulation	x 100% x 87%
Percentage attributed to bumper contact by vehicle	x 81% x 72%
total	PV 6,094 persons LTV 898 persons

Same as the NHTSA Method

MAIS 2+ knee and lower leg injuries prevented (by PV)

Target population	6,094 persons			
	Separated by injured parts*			
	Lower leg	Knee		
Percentage of injury type	x 71.5%	x 28.5%		
Percentage of no injury ratio	Primary zone x 50%	Relaxation zone x 50%	Primary zone x 50%	Relaxation zone x 50%
Percentage of test zone	x 65%	x 15%	x 65%	x 15%
	1,416 persons	327 persons	564 persons	130 persons
total	2,438 persons			

Treatment of primary zone and relaxation zone will be discussed in the Flex-TEG Meeting (now just set 50% injury level for each).

Number of Injury Prevented Persons (by PV)

MAIS 2+ knee and lower leg injuries prevented (by LTV)

Target population	898 persons			
Percentage of injury type	Lower leg x 71.5%	Knee x 28.5%		
Percentage of no injury ratio	Primary zone x 50%	Relaxation zone x 50%	Primary zone x 50%	Relaxation zone x 50%
Percentage of test zone	x 65%	x 15%	x 65%	x 15%
	209 persons	48 persons	83 persons	19 persons
total	359 persons			

Separated by car type

Number of Injury Prevented Persons (by LTV)
(in case of LTV made a countermeasure for the Flex-PLI)

* Data Source: SAE 2006-01-0683