



# IN-VEHICLE CRASH TESTING WITH THE **WORLD**SID 5<sup>TH</sup> FEMALE

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# Purpose

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To compare in-vehicle response of WorldSID 5<sup>th</sup> female to that of the SIDIIs in various side impact configurations

# Test Matrix



## WorldSID 5<sup>th</sup> and SIDIIs Comparisons

	Driver	Front Struck side passenger	Rear struck side passenger
Pontiac Wave/ FMVSS 214* 54 km/h	X		X
Saturn Ion/ IIHS 50 km/h		X	
Nissan Versa/ IIHS 50 km/h			X
Dodge Journey/ F150 50 km/h	X		

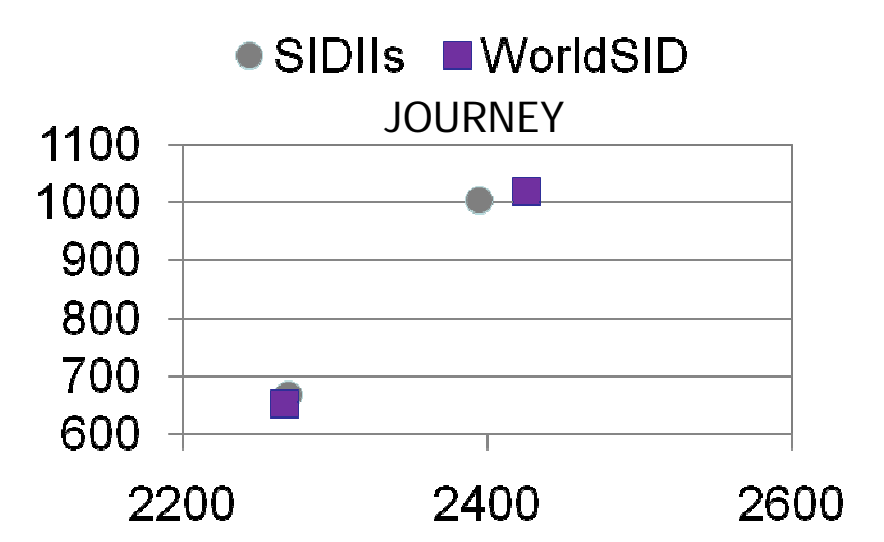
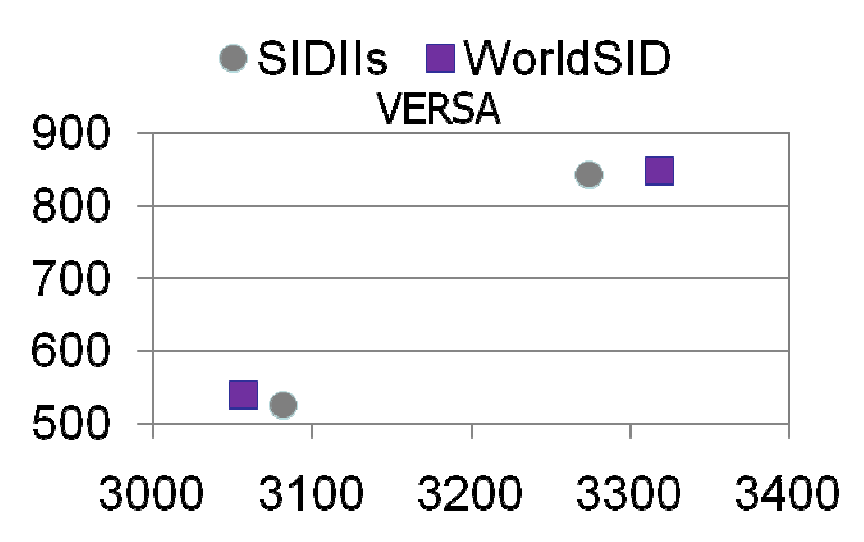
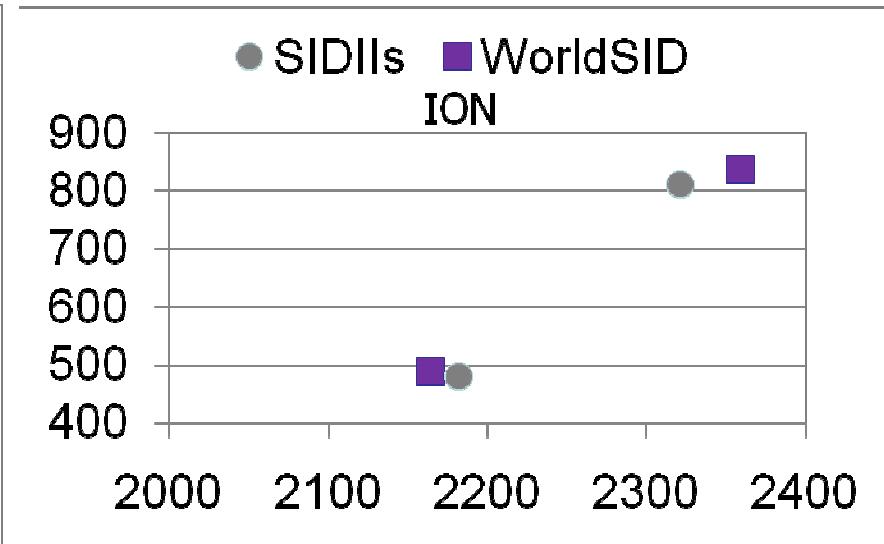
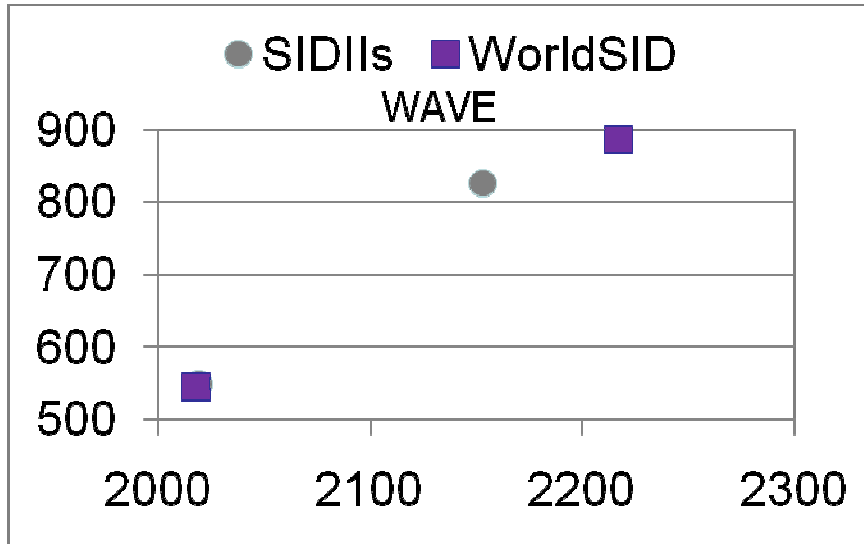
# Methodology

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- WorldSID 5<sup>th</sup> was placed in vehicle to match the SIDII's H-point and shoulder.
- FMVSS 214 barrier crabbed at 27°
- IIHS barrier perpendicular at 50 km/h
- SUV perpendicular at 50 km/h

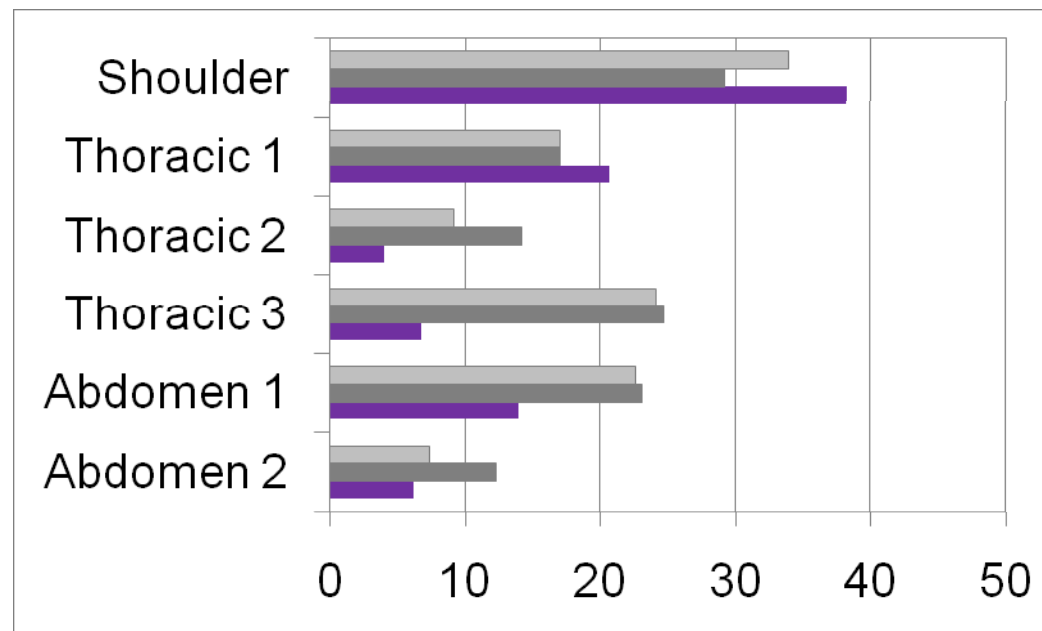
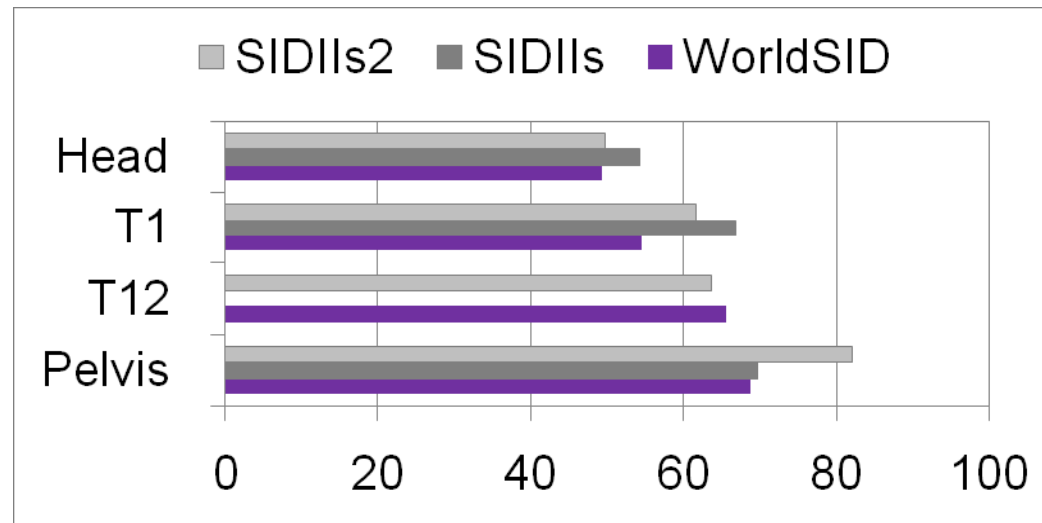
# Positioning



# Pontiac Wave/ FMVSS 214



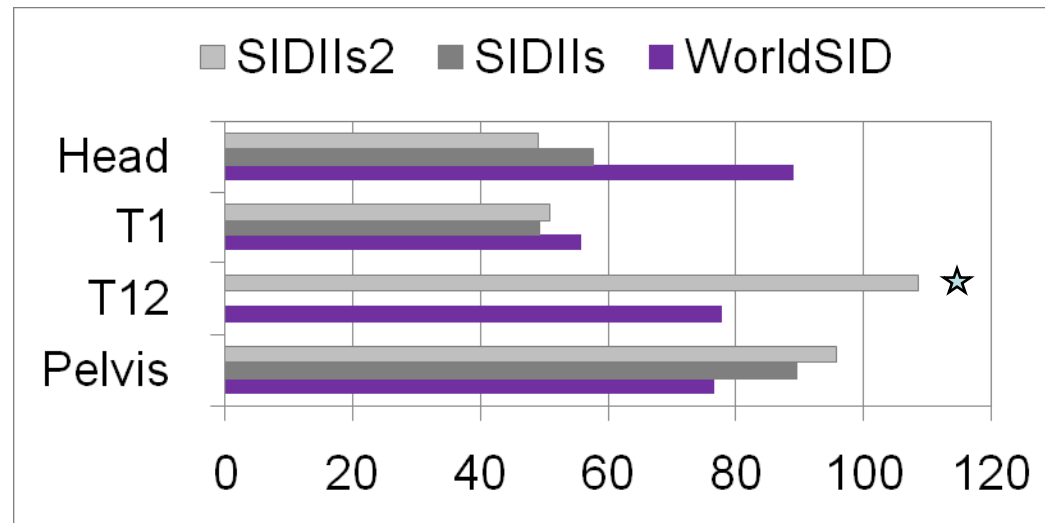
## DRIVER



# Pontiac Wave/ FMVSS 214



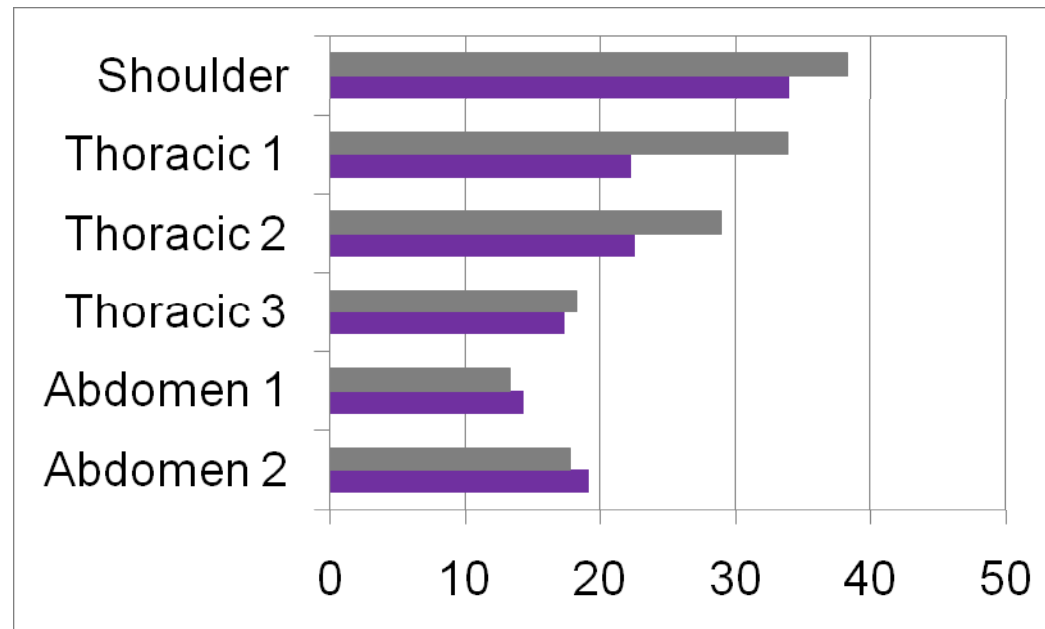
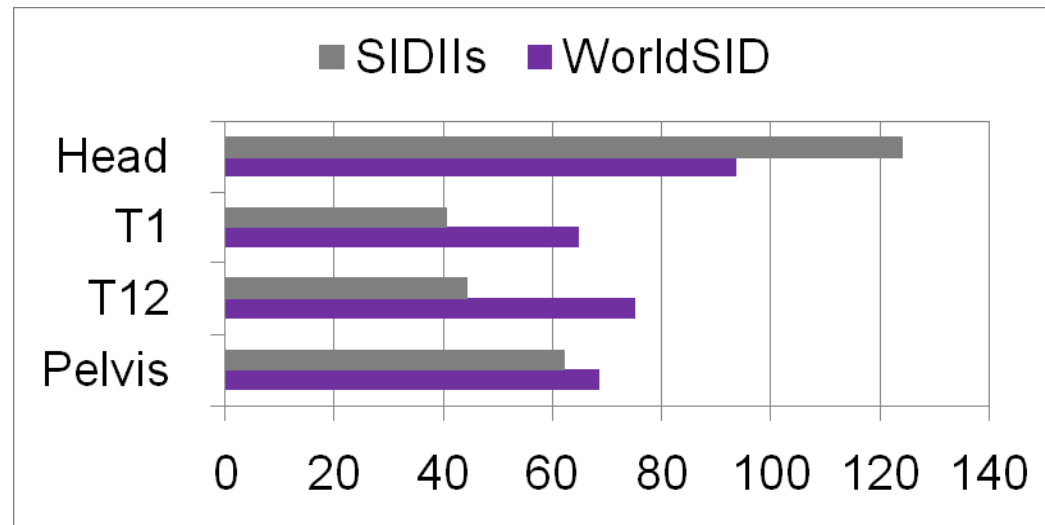
REAR  
PASSENGER



# Nissan Versa/ IHS



REAR  
RIGHT  
PASSENGER  
R

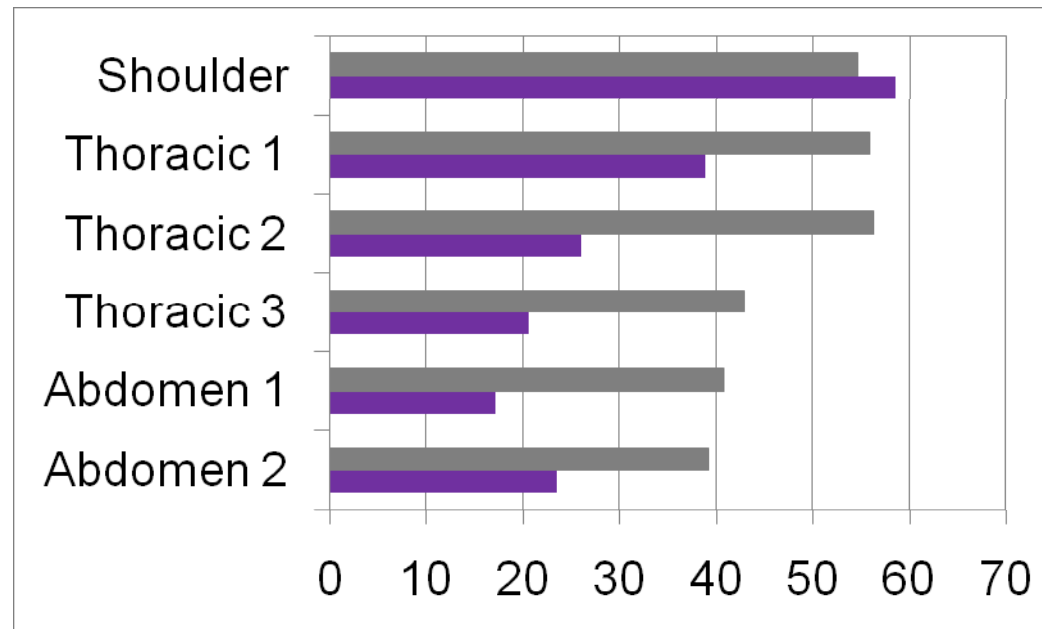
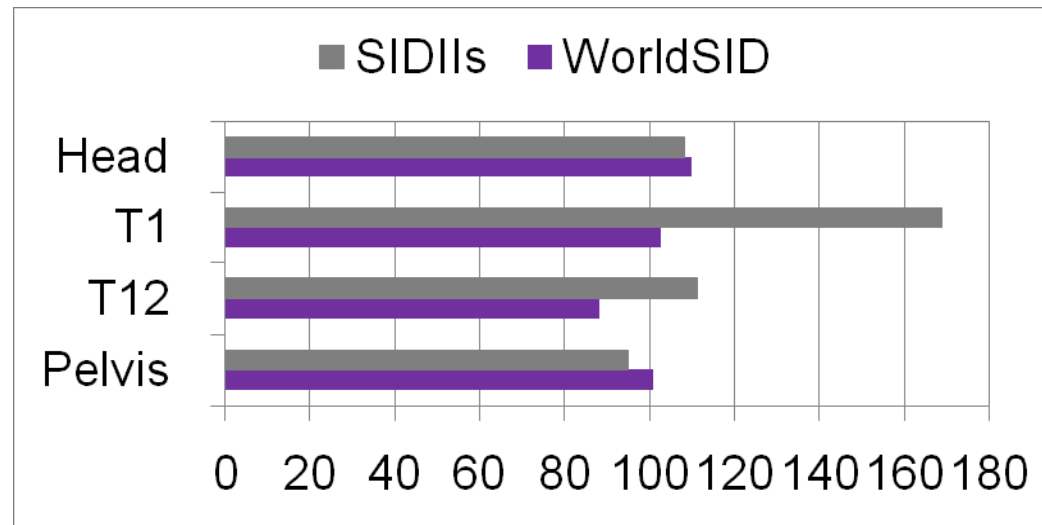




# Saturn ION/ IHS



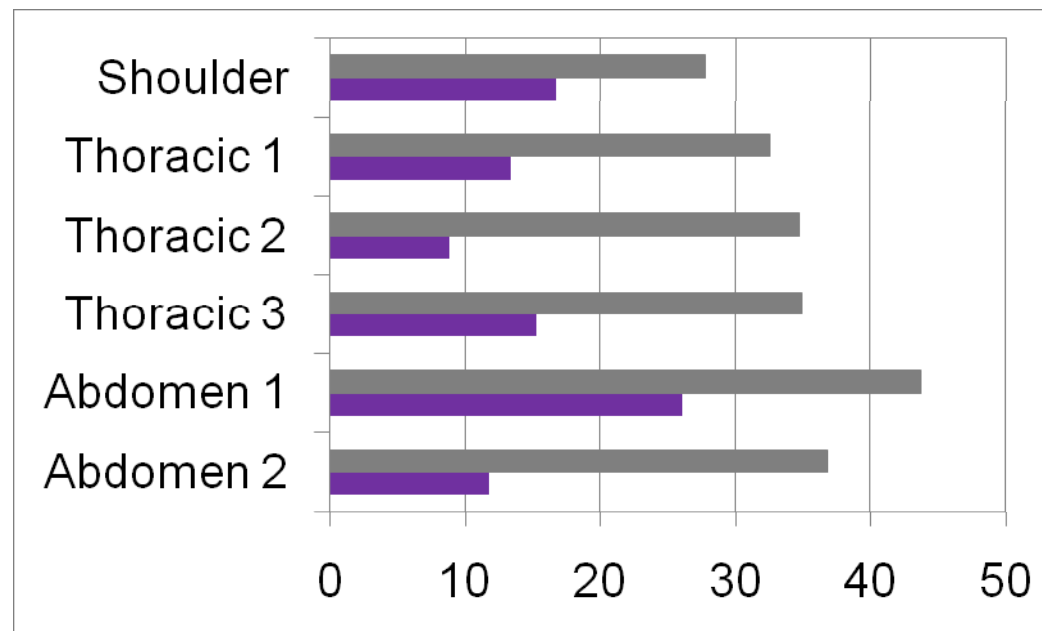
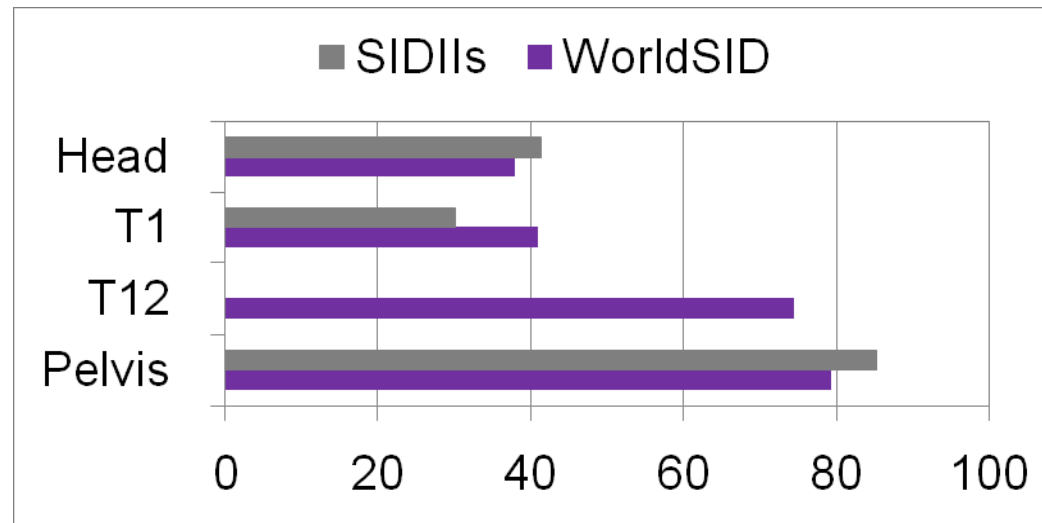
FRONT  
RIGHT  
PASSENGER  
R



# Dodge Journey/ F150



## DRIVER



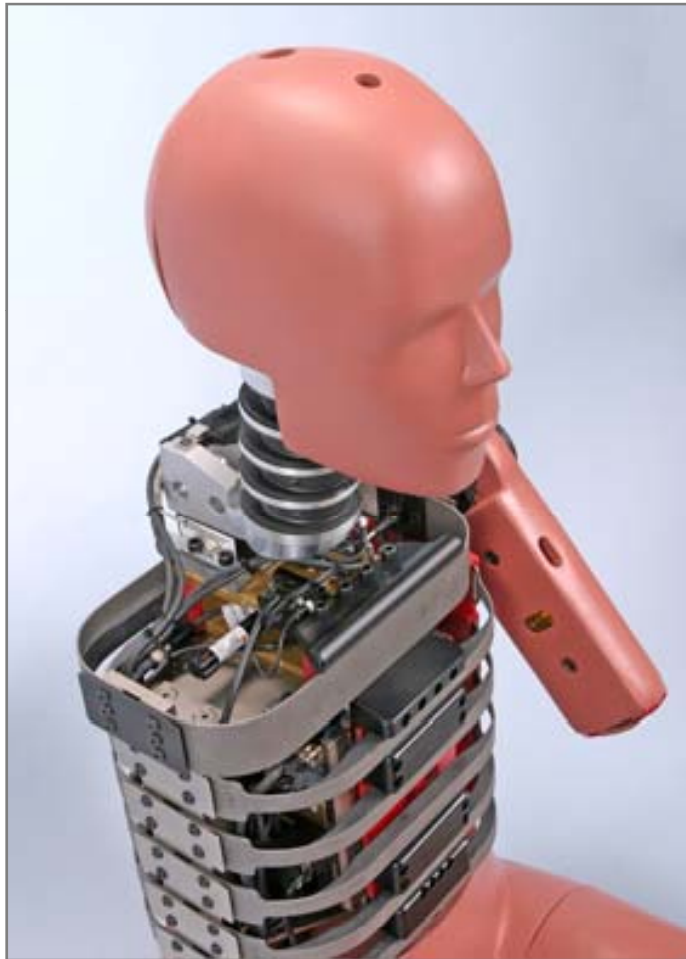




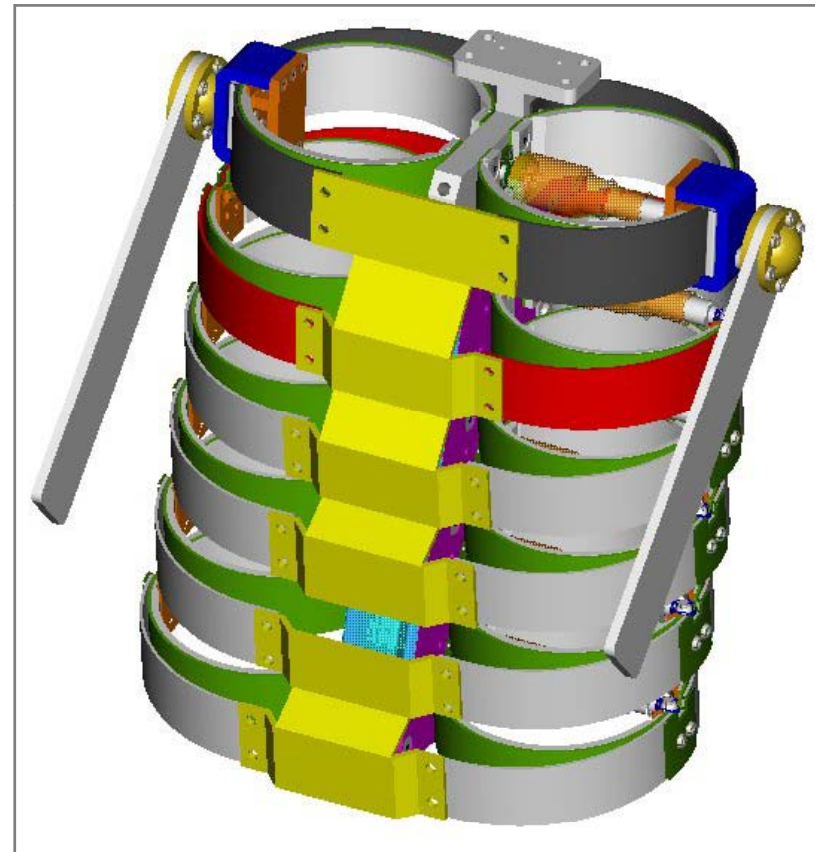




# SIDIIs Thorax



# WorldSID Thorax



# Summary

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- Significant differences in deflection independent of crash configuration or struck side location;
- Further testing is needed to isolate the mechanism contributing to the reduced chest deflection response;
- Introduction of multi-point sensing could help track fore-aft and vertical displacement.