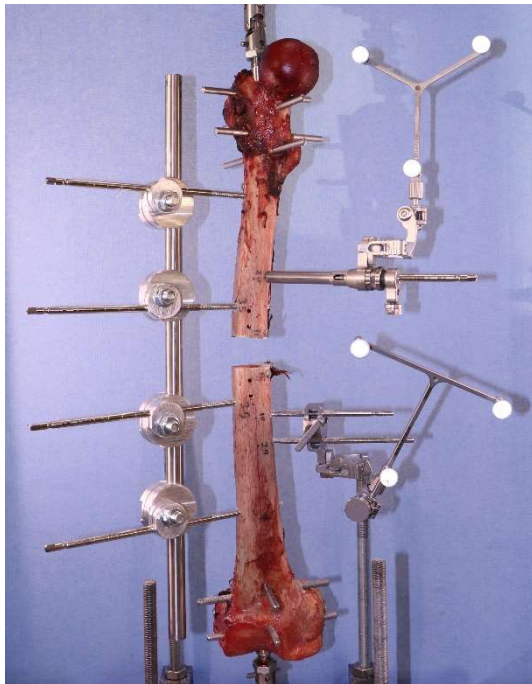


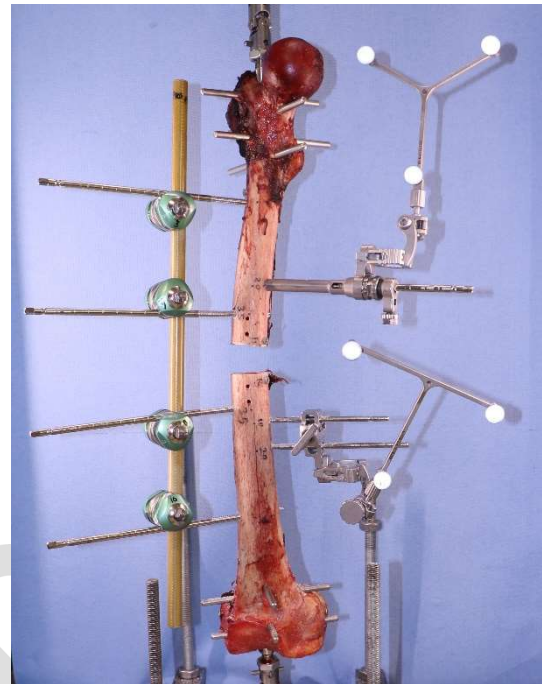
Cadaver testing of Imperial external fixator and Stryker Hoffmann 3

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Imperial external fixator

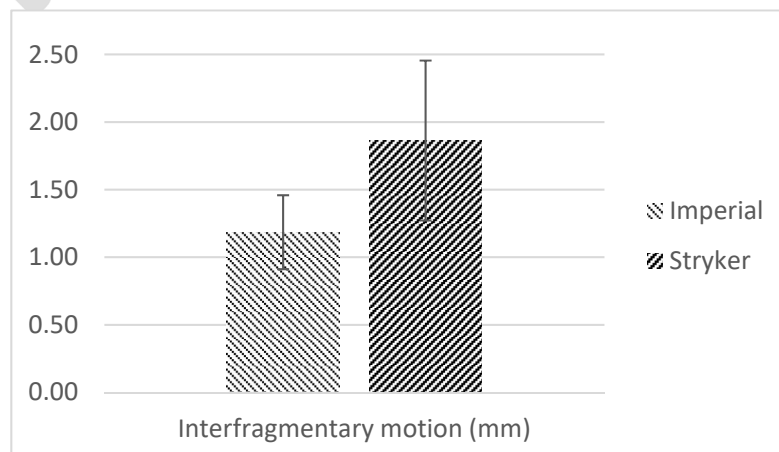


Stryker Hoffmann 3

Loading and motion tracking on 4 femurs and 4 tibias were performed as follows:

- Repeated measures Imperial and Stryker frames
- Using the same frame geometries
- 100 cycles of 100N compression to 100N tension
- Fracture gap measured from a screw just proximal of the fracture gap and a screw just distal of the fracture gap using the Y and T marker sets, respectively
- Interfragmentary motion is the metric (peak to trough amplitude of the distance proximal and distal screws)

As shown in the figure below, the Imperial fixators have consistently exhibited lower interfragmentary motions than those of the Stryker ones (for the same bones), which means the Imperial fixator creates a more rigid structure.



Interfragmentary motion for all tests are listed in the table below:

Specimen	L/R	Test 1		Test 2	
		ExFix Frame 1	Interfragmentary motion (mm)	ExFix Frame 2	Interfragmentary motion (mm)
SB01 Femur	L	Stryker	0.97	Imperial	0.84
SB02 Femur	R	Imperial	0.72	Stryker	1.35
SB03 Femur	R	Imperial	1.33	Stryker	2.91
SB04 Femur	L	Stryker	2.13	Imperial	1.23
Specimen	L/R	Test 1		Test 2	
		ExFix Frame 1	Interfragmentary motion (mm)	ExFix Frame 2	Interfragmentary motion (mm)
SB01 Tibia	L	Imperial	1.24	Stryker	1.67
SB02 Tibia	R	Stryker	1.68	Imperial	1.32
SB03 Tibia	R	Stryker	1.98	Imperial	1.24
SB04 Tibia	L	Imperial	1.56	Stryker	2.23