

Revision surgery after instrumented fusion

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TAKE HOME MESSAGES

- Fusion mass can change over the years if not instrumented
- Don't stop inside fusion mass, include it inside the new instrumentation
- Be careful on the junction between the recent and previous instrumented segments: overlapped instrumentation on 3 levels or connector if possible
- Check the disk height and peroperative flexibility after PCO
- Navigation in an interesting tool for large fusion mass
- Connectors
- **All the previous items should be planned before surgery...**

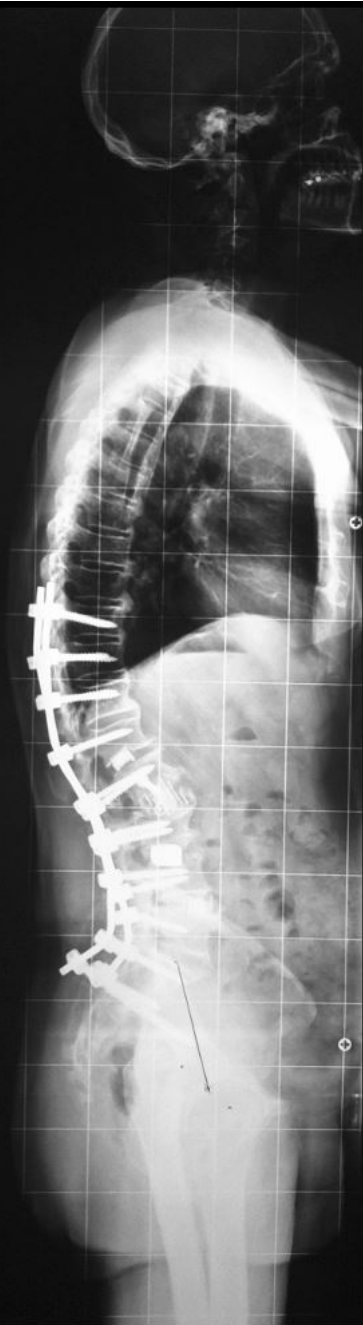
Surgical problems in second operations after instrumented adult spine

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- IRRCS Istituto Ortopedico
Galeazzi**
- Milano**





Peek hyperlordotic implant 30°
With bone graft substitute



	Pre- OP	NORM	POST-OP
PI	45°		45°
PT	27°	10°	13°
LL _{L1-S1}	17°	55°	56°
LL _{L4-S1}	36°	36°	44°
LL _{L5-S1}	30°	18°	27°
TK	36°		24°
SVA	140		12
TLJK	33°	0°	0°
ACR L2-L3			34°





	Pre-Op	Norm
PI	71	*
PT	43	19
LL	-30,5	-71
LLL (L4-S1)	-11	-47
TJK (T11-L1)	7	0
TK u60y	33	43
SVA	122 mm	<50mm

ODI: 75 VAS back: 10 VAS leg: 10





ALIF HL 30°
 Ponte in L2-L3, L3-L4, L4-L5, L5-S1.

	Pre-Op	Norm	Post-Op
PI	71	*	62
PT	43	19	26
LL	-30,5	-71	-75
LLL (L4-S1)	-11	-47	-48
TJK (T11-L1)	7	0	3,5
TK u60y	33	43	54
SVA	122 mm	<50mm	-13mm



64 y/o, female
49 Kg, 150 Cm
Non smoker

Neurofibromatosis
27 y: Scoliosis correction with Harrington rod
56 y: Harrington rod removal



	Pre-Op	Ideal
PI	46	*
PT	50	8
LL	-5	-57
LLL (L4-S1)	-28	-38
TJK (T11-L1)	79	0
SVA	150m	<50m
TK over 60y	5	50





3D spine reconstruction

Screw guides

Osteotomy guide





Useful tools for success

- Knowledge of alignment rules
- Anterior fusion:
 - Restoration of alignment
 - PSO avoidance
- Patient-specific solutions
- Team approach to reduce complications

