

# Fig. E-1

Forest plot for the IKDC knee score. A positive log OR (log odds ratio) means that metal screws (MS) are more likely to be associated with lower IKDC scores. The result here, however, is not significant as the 95% confidence interval includes 0.



# Fig. E-2

Forest plot for the Lysholm score. The pooled estimate is nearly centered on the line of no effect, meaning that no difference could be detected. BA = bioabsorbable screws group, and MS = metal screws group.



### Fig. E-3

Forest plot for the Tegner activity score. A positive mean difference favors higher scores for metallic screws (MS). The result is not significant, however, as the 95% confidence interval includes 0. BA = bioabsorbable screws group.



# Fig. E-4

Forest plot for arthrometry results. A positive mean difference represents a greater side-to-side difference in the metallic screws group (MS). The result is not significant, however, as the 95% confidence interval includes 0. BA = bioabsorbable screws group.

Study		Risk	%				
ID		Difference (95% CI)	Weight				
Imputed							
Drogset (2005)		0.00 (-0.10, 0.10)	10.91				
Fink (2000)		0.00 (-0.10, 0.10)	10.91				
Kaeding (2005)		0.00 (-0.10, 0.10)	10.91				
Laxdal (2006)		0.00 (-0.10, 0.10)	10.91				
Moisala (2008)		0.00 (-0.10, 0.10)	10.91				
Benedetto (2000)		0.00 (-0.10, 0.10)	10.91				
Subtotal (I <sup>2</sup> = 0.0%, p = 1.000)		0.00 (-0.04, 0.04)	65.48				
Calculated							
McGuire (1999)		-0.12 (-0.19, -0.07)	19.89				
Myers (2008) -		-0.02 (-0.11, 0.05)	14.63				
Subtotal (I <sup>2</sup> = 74.0%, p = 0.050)		-0.07 (-0.17, 0.02)	34.52				
Overall (l <sup>2</sup> = 34.4%, p = 0.154)		-0.03 (-0.07, 0.01)	100.00				
NOTE: Weights are from random effects analysis							
		1					
Higher risk with BA -0.19	Risk Difference	0.19 Higher risk w					

# Fig. E-5

Forest plot for intraoperative screw breakage. A negative risk difference means a higher likelihood of intraoperative screw breakage in the bioabsorbable screws group (BA). The result is not significant, however, as the 95% confidence interval includes 0. MS = metal screws group.



### Fig. E-6

Forest plot for intraoperative graft damage. The pooled estimate is nearly centered on the line of no effect, meaning that no difference could be detected. BA = bioabsorbable screws group, and MS = metal screws group.

Study	Risk	%
ID	Difference (95% CI)	Weight
Imputed		
Drogset (2005)	0.00 (-0.10, 0.10)	8.63
Fink (2000)	0.00 (-0.10, 0.10)	8.63
Laxdal (2006)	0.00 (-0.10, 0.10)	8.63
Moisala (2008)	0.00 (-0.10, 0.10)	8.63
Myers (2008)	0.00 (-0.10, 0.10)	8.63
Subtotal (I <sup>2</sup> = 0.0%, p = 1.000)	0.00 (-0.04, 0.04)	43.14
Calculated		
Kaeding (2005)	-0.04 (-0.18, 0.09)	4.73
McGuire (1999)	-0.03 (-0.08, 0.02)	34.51
Benedetto (2000)	-0.05 (-0.12, 0.02)	17.61
Subtotal (I <sup>2</sup> = 0.0%, p = 0.900 )	-0.04 (-0.08, 0.00)	56.86
Overall (I <sup>2</sup> = 0.0%, p = 0.974)	-0.02 (-0.05, 0.01)	100.00
NOTE: Weights are from random effects analysis		

# Fig. E-7

Forest plot for postoperative effusion. A negative risk difference favors a higher postoperative effusion rate for the bioabsorbable screws group (BA). The result is not significant, however, as the 95% confidence interval includes 0. MS = metal screws group.



### Fig. E-8

Forest plot for postoperative infection. The pooled estimate is nearly centered on the line of no effect, meaning that no difference could be detected. BA = bioabsorbable screws group, and MS = metal screws group.

Study	Risk	%
ID	Difference (95% CI)	Weight
Imputed		
Drogset (2005)	0.00 (-0.10, 0.10)	5.73
Fink (2000)	0.00 (-0.10, 0.10)	5.73
Kaeding (2005)	0.00 (-0.10, 0.10)	5.73
Subtotal (I <sup>2</sup> = 0.0%, p = 1.000)	0.00 (-0.06, 0.06)	17.18
Calculated		
Laxdal (2006)	-0.03 (-0.15, 0.09)	3.98
McGuire (1999)	-0.01 (-0.06, 0.04)	22.91
Moisala (2008)	-0.13 (-0.30, 0.03)	2.10
Myers (2008)	0.00 (-0.09, 0.09)	7.07
Benedetto (2000)	0.02 (-0.02, 0.05)	46.76
Subtotal (I <sup>2</sup> = 0.0%, p = 0.412)	0.00 (-0.02, 0.03)	82.82
Overall (I <sup>2</sup> = 0.0%, p = 0.784)	0.00 (-0.02, 0.03)	100.00
NOTE: Weights are from random effects analysis		
-0.3 0	0.3	
Higher risk with BA	Higher risk with	MS

# Fig. E-9

Forest plot for postoperative graft failure. The pooled estimate is nearly centered on the line of no effect, indicating no difference in the risk of postoperative graft rupture between the groups. BA = bioabsorbable screws group, and MS = metal screws group.

#### TABLE E-1 Summary of Study Characteristics and Data\*

														KT-1	000											IKI	DC			Com	plications	(no.[%])		
							Duration of Follow-up (mo)				Preop. S	core (mm)		Postop.	Score (mm)	Postop	. Category	(no.[%])	Lysh	olm Score	(points) Tegr	er Activity	Score (p	ooints) Fin	al Grade	(no.[%]	D	Subscore (points) Intrao				Postc	p.	
	Level of			Implant					Follow-up										Preop.	Postop.	Postop. Pre	op. Post	op. Pos	stop.					Screw	Graft				Graft
Drogset et al.4	Evidence	N	Implant Model	Material†	Graft Type‡ PT	Site§	Mean Min 24	Max 35	Percentage 90%	Mean	Min	Max	SD	Mean	SD	<3 mm	3 to 5 mr	m >5 mm	Mean	Mean	SD Me	an Mea	an S	SD A	В	С	D	Mean 95% CI	Total Breakag	e Damage	Total	Effusion	Infection	Failure
DAC		01	Dio Corow DI	1.4	autograft	тс										17 (0.49/ )	1 (60/ )		70.0	04.0	20	6.2						0			0	+		
BAS		21	Linvatec, Largo,	LLA		IF										17 (94%)	1 (0%)		70.0	94.0	5.9	0.3						U			U			
MS		20	Not specified No	ot specified		TF										17 (89%)	2 (11%)		66.0	97.0	3.6	7.8						0			1 (5%)	1	(5%)	
			(Linvatec)														= (,0)				0.0										. (0,0)		(0,0)	
Fink et al.43	1				PT		22	26	90%																									
DAC		20	Fada Fiy (Carith D(		autograft	-				4.0			1.2	1 5	0.0			-	60.6	00.1	0.2 1.0	7.4	1.1	1 (69( ) 1)	. 1	(60/)		0			0			<u> </u>
BAS		20	Endo-FIX (Smith PC & Nephew Endoscopy, Andover, Massachusetts)	JA/TMC		F				4.9			1.3	1.5	0.8				60.6	98.1	2.3 1.9	7.4	1.1	1 (6%) 11	9%)	(6%)	U	U			U			
MS		20	CANNU-FLEX Tit (Smith & Nephew)	tanium		F				5.3			0.9	1.6	0.8				55.0	97.7	3.0 1.5	7.5	0.8	2 (11%) 14 (7	4 2 8%)	(11%)	0	0			1 (5%)	1	(5%)	
Kaeding et al.2	<sup>8</sup>				PT autograft			24	67%																									
BAS		48	Phantom PL (DePuy, Warsaw, Indiana)	LA	ulogran	TF								1.0	3.0													0			7 (15%)	6 (13%) 1	(2%)	
MS		49	Not specified Tit	tanium		TF								0.7	2.9													0			5 (10%)	4 (8%) 1	(2%)	
Laxdal et al.9	I				QHS autograft		26 23	43	87%																									
BAS		38	Bio-interference PL (Arthrex, Karlsfeld, Germany)	LLA	adogran	TF				4.5	1.5	10.5		0.8	Range, – to 5	1			75.0	90.0	Range, 60 4.0 to 100	7.0	Rang to 9	ge, 3 13 14 (37%) (4	4 6 0%)	(17%)	2 (6%)	0			4 (10%)	2	(5%)	2 (5%)
MS		39	RCI (Smith & Tit Nephew)	tanium		TF				3.5	-3.0	3.0		1.5	Range, – to 10	3			69.0	94.0	Range, 41 4.0 to 100	6.0	Rang to 9	ge, 3 4 (13%) 14 (4	5 10 7%) (3	0 31%)	3 (9%)	0			1 (3%)			1 (3%)
							20 11		0001 140																									
NCGUIRE et al.					wuitipie		28 11	04	57% at 24 mo	,																								
BAS		103	BioScrew PL (Linvatec)	LLA		83 TF, 20 T			01 /0 dt 2 1 110	6.6				1.5					54.7	94.6	2.4	6.0						1	2 12 (12%) 2%)		7 (7%)	5 (5%)		2 (2%)
MS		101	Not specified No	ot specified		75 TF, 25 F, 1 unknown				6.6				1.7					57.7	94.0	2.4	6.1						Ò			3 (3%)	2 (2%)		1 (1%)
Moisala et al.4	<sup>1</sup> II				QHS		24	36	68%																									
BAS		31	Hexalon (Inion PL Oy, Tampere, PI	LLA, DLA/TMC	autograft	TF				3.7			2.8	1.7	2.9				70.0	94.0	7.0			12 6 (60%)	(30%) 2	(10%)	0	0			5 (16%)			5 (16%)
MS		31	Finland) Not specified No	ot specified		TF				4.4			2.6	1.9	2.0				67.0	88.0	16.0		_	9 (41%) 1	2 1	(5%)	0	0			1 (3%)	$\vdash$		1 (3%)
			(Timoni, Finland)												_			_							5%)							$\left  \right $		
Myers et al.45	I				QHS autograft			24	88%	1																								

BAS	50	RCI HA-PLLA	HA-PLLA		TF							39 (78%)	10 (20%)	1 (2%) 67.0	91.0	95% CI			90	88 to 93 1 (2%) 1 (2%)		1 (2%)			1 (2%)
		(Smith &														90-95									
		Nephew)																							
MS	50	RCI (Smith &	Titanium		TF							41 (82%)	9 (18%)	65.0	92.0	95% CI			90	89 to 92 0		1 (2%)			1 (2%)
		Nephew)														91-94									
Benedetto et I				PT		13	10	22	91%																
al. <sup>41</sup>				autograft																					
BAS	67	Endo-Fix (Smith	PGA/TMC		F							43 (75%)	12 (21%)	2 (4%)			16 41	5 (8%)	D	3 (4%)	3 (4%)	4 (6%)	3 (4%)	1 (1%)	
		& Nephew)															(26%) (66%)								
MS	57	CANNU-FLEX	Titanium		F							32 (67%)	13 (27%)	3 (6%)			11 36	5 (10%)	D	1 (2%)	1 (2%)	4 (7%)		3 (5%)	1 (2%)
		(Smith &			1												(21%) (69%)					. ,	1	1	
		Nephew)																							

\*BAS = bioabsorbable screws, MS = metal screws, tPLLA = poly-L-lactic acid, PGA/TMC = polyglycolic acid/trimethylene carbonate, PDLA/TMC = poly-D-lactic acid/trimethylene carbonate, HA-PLLA = hydroxyapatite-poly-L-lactic acid. ‡PT = patellar tendon, QHS = quadrupled hamstring, T = tibia, F = femur, TF = tibia and femur.