Supplementary Figure S1 Comparison in SSI rates between smoking and non-smoking groups after ORIF of ankle and calcaneal fractures in studies that identified current smokers (1-8)

Events	Total	_			Odds Ratio	
	rotai	Events	Total	Weight	M-H, Random, 95% CI	M-H, Random, 95% CI
21	44	49	166	13.6%	2.18 [1.11, 4.30]	
59	214	60	374	20.4%	1.99 [1.33, 2.99]	
10	136	19	431	11.5%	1.72 [0.78, 3.80]	 •
11	262	35	985	13.3%	1.19 [0.60, 2.38]	
39	283	106	753	20.7%	0.98 [0.66, 1.45]	-
	939		2709	79.4%	1.50 [1.05, 2.14]	•
140		269				
0.08; Chi	$^{2} = 8.0^{\circ}$	7, df = 4 (F	0.09	$ ^2 = 50\%$	1	
= 2.25 (P = 0.0	12)				
res						
4	22	1	31	2.2%	6.67 [0.69, 64.39]	+
11	114	6	204	8.2%	3.52 [1.27, 9.80]	
8	143	16	757	10.2%	2.74 [1.15, 6.54]	
	279		992	20.6%	3.24 [1.72, 6.12]	•
23		23				
0.00; Chi	$r^2 = 0.5$	7, df = 2 (F	0.75	$ ^2 = 0\%$		
= 3.63 (P = 0.0	1003)				
	1218		3701	100.0%	1.77 [1.25, 2.51]	•
163		292				
0.11; Chi	2 = 13.5	95, df = 7 ((P = 0.0)	5); I ² = 50°	%	0.05 0.2 1 5 20
			1 (P = 0.	$.04$), $I^2 = 7$	6.7%	Non-smoking Smoking
	59 10 11 39 140 0.08; Chi = 2.25 (res 4 11 8 23 0.00; Chi = 3.63 (163 0.11; Chi = 3.24 (59 214 10 136 11 262 39 283 939 140 0.08; Chi² = 8.0° = 2.25 (P = 0.0° res 4 22 11 114 8 143 279 23 0.00; Chi² = 0.5° = 3.63 (P = 0.0° 1218 163 0.11; Chi² = 13.8° = 3.24 (P = 0.0°	59 214 60 10 136 19 11 262 35 39 283 106 939 140 269 0.08; Chi² = 8.07, df = 4 (Find the series of the serie	59 214 60 374 10 136 19 431 11 262 35 985 39 283 106 753 939 2709 140 269 0.08; Chi² = 8.07, df = 4 (P = 0.09) = 2.25 (P = 0.02) res 4 22 1 31 11 114 6 204 8 143 16 757 279 992 23 23 0.00; Chi² = 0.57, df = 2 (P = 0.75) = 3.63 (P = 0.0003) 163 292 0.11; Chi² = 13.95, df = 7 (P = 0.006) = 3.24 (P = 0.001)	59 214 60 374 20.4% 10 136 19 431 11.5% 11 262 35 985 13.3% 39 283 106 753 20.7% 939 2709 79.4% 140 269 0.08; Chi² = 8.07, df = 4 (P = 0.09); I² = 50% = 2.25 (P = 0.02) res 4 22 1 31 2.2% 11 114 6 204 8.2% 8 143 16 757 10.2% 279 992 20.6% 23 23 0.00; Chi² = 0.57, df = 2 (P = 0.75); I² = 0% = 3.63 (P = 0.0003) 1218 3701 100.0% 163 292 0.11; Chi² = 13.95, df = 7 (P = 0.05); I² = 50% = 3.24 (P = 0.001)	59 214 60 374 20.4% 1.99 [1.33, 2.99] 10 136 19 431 11.5% 1.72 [0.78, 3.80] 11 262 35 985 13.3% 1.19 [0.60, 2.38] 39 283 106 753 20.7% 0.98 [0.66, 1.45] 939 2709 79.4% 1.50 [1.05, 2.14] 140 269 1.08; Chi² = 8.07, df = 4 (P = 0.09); i² = 50% i= 2.25 (P = 0.02) res 4 22 1 31 2.2% 6.67 [0.69, 64.39] 11 114 6 204 8.2% 3.52 [1.27, 9.80] 8 143 16 757 10.2% 2.74 [1.15, 6.54] 279 992 20.6% 3.24 [1.72, 6.12] 23 23 1.00; Chi² = 0.57, df = 2 (P = 0.75); i² = 0% i= 3.63 (P = 0.0003) 1218 3701 100.0% 1.77 [1.25, 2.51] 163 292 1.11; Chi² = 13.95, df = 7 (P = 0.05); i² = 50%

Supplementary Figure S2 Comparison in SSI rates between smoking and non-smoking groups after ORIF of ankle and calcaneal fractures in studies that had a follow-up duration of 1 year or more (1, 2, 7, 9-11).

	Smoking		Non-smo	oking		Odds Ratio	Odds Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% CI	M-H, Random, 95% CI	
1.5.1 Ankle fracture								
Zhao 2022	21	44	49	166	19.4%	2.18 [1.11, 4.30]		
Braunstein 2020	1	11	1	21	1.1%	2.00 [0.11, 35.41]		
Jensen 2022	59	214	60	374	53.8%	1.99 [1.33, 2.99]	-	
Abdelgaid 2018 Subtotal (95% CI)	1	11 280	2	36 597	1.4% 75.6 %	1.70 [0.14, 20.75] 2.03 [1.44, 2.87]	•	
Total events	82		112					
Heterogeneity: Tau2:	= 0.00; Ch	$i^2 = 0.0$	7, df = 3 (F)	0 = 1.00	$ ^2 = 0\%$			
Test for overall effect	Z = 4.05	(P < 0.0	1001)					
1.5.2 Calcaneal frac	ture							
Lu 2022	8	143	16	757	11.8%	2.74 [1.15, 6.54]		
Shen 2022 Subtotal (95% CI)	10	133 276	14	169 926	12.5% 24.4 %	0.90 [0.39, 2.10] 1.56 [0.52, 4.70]		
Total events	18		30					
Heterogeneity: Tau²: Test for overall effect				P = 0.07); I² = 70%	6		
Total (95% CI)		556		1523	100.0%	1.90 [1.41, 2.57]	•	
Total events	100		142					
Heterogeneity: Tau²: Test for overall effect	Z= 4.22	(P < 0.0	1001)				0.05 0.2 1 5 20 Non-smoking Smoking	
Test for subgroup dit	fferences:	Chi ² =	0.20, df=	1 (P = 0)	.66), $I^2 = 0$	0%		

Supplementary Figure S3 Comparison in SSI rates between smoking and non-smoking groups after ORIF of ankle and calcaneal fractures in studies that defined SSI according to the definition provided by CDC (1, 2, 4, 12-14).

	Smoking		Non-smoking			Odds Ratio	Odds Ratio		
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% CI	M-H, Random, 95% CI		
1.6.1 Ankle fractures	;								
Sun 2017	11	262	35	985	10.9%	1.19 [0.60, 2.38]			
Liu 2020	10	246	35	1286	10.2%	1.51 [0.74, 3.10]	-		
Schepers 2013	4	21	10	80	3.2%	1.65 [0.46, 5.89]	-		
Jensen 2022	59	214	60	374	31.1%	1.99 [1.33, 2.99]			
Zhao 2022	21	44	49	166	11.3%	2.18 [1.11, 4.30]			
Sato 2022 Subtotal (95% CI)	23	213 1000	46	988 3879	18.9% 85.7%	2.48 [1.47, 4.19] 1.90 [1.49, 2.44]			
Total events	128	1000	235	3073	05.170	1.50 [1.45, 2.44]			
		2 2 2			. 17 - 000				
Heterogeneity: Tau ² =				= 0.64), 1-= 0%				
Test for overall effect:	Z = 5.13	(P < U.L	JUUU1)						
1.6.2 Calcaneal fract	ures								
Shen 2022	10	133	14	169	7.3%	0.90 [0.39, 2.10]			
Lu 2022	8	143	16	757	6.9%	2.74 [1.15, 6.54]			
Subtotal (95% CI)		276		926	14.3%	1.56 [0.52, 4.70]			
Total events	18		30						
Heterogeneity: Tau ² =	0.44; Ch	$i^2 = 3.3$	0, df = 1 (F	0.07); $I^2 = 70\%$	6			
Test for overall effect:	Z = 0.80	(P = 0.4)	13)						
Total (95% CI)		1276		4805	100.0%	1.85 [1.47, 2.33]	•		
Total events	146		265						
Heterogeneity: Tau ² =		$i^2 = 7.0$		0 = 0.42): I ² = 1%				
Test for overall effect:				3.12	,,		0.1 0.2 0.5 1 2 5 10		
Test for subgroup diff				1 (P = 0	73) P = 0	196	Non-smoking Smoking		
. coor oangroup am	C. 011000.	VIII -	v., z, w, -	. ,, - 0	5// 1 - 6	***			

Supplementary Figure S4 Comparison in SSI rates between smoking and non-smoking groups after ORIF of ankle and calcaneal fractures in studies that both identified current smokers and adhered to the CDC definition of SSI (1, 2, 7).

	Smoking		Non-smoking			Odds Ratio	Odds Ratio		
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% CI		M-H, Random, 95% CI	
Lu 2022	8	143	16	757	13.9%	2.74 [1.15, 6.54]		_ -	
Zhao 2022	21	44	49	166	22.8%	2.18 [1.11, 4.30]		-	
Jensen 2022	59	214	60	374	63.3%	1.99 [1.33, 2.99]		-	
Total (95% CI)		401		1297	100.0%	2.13 [1.54, 2.94]		•	
Total events	88		125						
Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 0.44$, $df = 2$ (P = 0.80); $I^2 = 0\%$								0.1 1 10	100
Test for overall effect:	Z = 4.56	(P < 0.0	10001)				0.01	Non-smoking Smoking	100

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