

## Supplementary data

**Table 3. A list of publications that cite either Praemer et al. or Einhorn as the source of the data that the rate for fracture non-union is 5–10%**

Publication	Year	Source	A	B
Axelrad et al.	2007	Injury 38 Suppl 1: S49-62.	+	
Bhandari et al.	2009	Indian J Orthop 43(2): 109-10.	+	+
Brinker et al.	2007	J Orthop Trauma 21(8): 557-70.	+	+
Choi et al.	2004	J Orthop Res 22(5): 1100-7.	+	
Dickson et al.	2008	J Orthop Res 26(5): 729-36.	+	+
Dimitriou et al.	2005	Injury 36 Suppl 4: S51-9.	+	
Dimitriou et al.	2013	Injury 44 Suppl 1: S50-3.	+	
Einhorn	1995	J Bone Joint Surg Am 77(6): 940-56.	+	N/A
Friedlaender	2004	Bone Morphogenetic Proteins: Regeneration of Bone and Beyond (book) pp. 157-62.	+	
Giannoudis et al.	2005	Injury 36 Suppl 3: S47-50.	+	
Martinek et al.	2000	Phys Sportsmed 28(2): 34-51.	+	
Memeo et al.	2014	Injury 45(2): 418-23	+	
Nelson et al.	2003	J Am Acad Orthop Surg 11(5): 344-54.	+	+
Papanna et al.	2012	Injury 43(7): 1135-40.	+	
Pountos et al.	2013	Injury 44(12): 1725-32.	+	
Smith & Nephew	2011	Exogen 4000+ Ultrasound Bone Healing System Patient Leaflet	+	
Sun et al.	2011	Orthopedics 34(5): 358.	+	
Tsiridis et al.	2007	Injury 38 Suppl 1: S11-25.	+	
Wang et al.	2015	Acta Orthop 86(5): 632-7.	+	
Yoshii et al.	2015	J Orthop Res 33(8): 1197-204	+	

A: Praemer et al. (1992 or 1999)  
B: Einhorn 1995

**Total number of non-union patients in Scotland between 2005 and 2010, according to age and sex**

Age (years)	15–24	25–34	35–44	45–54	55–64	65–74	75–84	≥ 85	Total
Male	505	594	560	404	310	188	117	20	2,698
Female	113	162	241	316	345	382	333	125	2,017
Male and female	618	756	801	720	655	570	450	145	4,715

**Incidence of fractures, according to age and sex, per 100,000 population per year (Aitken)**

Age (years)	15–24	25–34	35–44	45–54	55–64	65–74	75–84	≥ 85	All ages
Male	2,024	1,159	924	776	661	774	1,488	3,106	1,157
Female	549	471	506	774	1,311	1,964	3,204	5,976	1,163
Male and female	1,274	813	708	775	997	1,424	2,527	6,984	1,160

Incidence of fractures, according to age and anatomical distribution, per 100,000 population per year (Aitken)

Age (years)	15–24	25–34	35–44	45–54	55–64	65–74	75–84	≥ 85	All ages
Clavicle and scapula	99	53	38	47	43	52	92	146	61
Humerus	35	26	36	83	142	237	386	791	114
Radius and ulna	268	174	160	188	325	477	673	1,060	290
Hand	636	351	264	186	124	142	215	154	297
Pelvis and femur	18	19	31	44	100	257	1062	3,165	199
Tibia and fibula	60	50	39	48	51	58	72	169	55
Ankle and foot	259	208	199	241	275	319	235	184	240
All	1,375	881	768	837	1060	1543	2733	5,670	1,256

Frequency of non-union per 1,000 fractures according to patient age and anatomical fracture distribution

Age (years)	15–24	25–34	35–44	45–54	55–64	65–74	75–84	≥ 85	All ages
Clavicle and scapula	17.5	54.0	81.5	75.3	58.0	57.0	28.3	9.5	45.3
Humerus	17.6	53.6	50.4	39.4	30.2	28.0	26.0	7.8	29.5
Radius and ulna	29.0	51.6	39.8	18.2	9.2	6.6	5.0	1.7	18.3
Hand	4.2	4.5	4.4	4.2	4.0	1.5	1.0	0.0	3.7
Pelvis and femur	29.3	51.7	55.3	39.5	30.8	20.3	7.2	3.9	13.3
Tibia and fibula	34.6	73.9	92.1	58.4	61.8	41.5	30.6	20.0	54.0
Ankle and foot	6.0	12.8	9.2	11.3	8.9	5.8	9.9	7.5	9.1
All	12.3	25.2	25.5	21.9	17.9	14.6	10.4	4.7	16.2