

Appendix 1. Summary of included studies

Study	N of shoulders	Mean age (range)	Sex F (%)	Sudy design	Index test	Reference standard	Target condition*
Adams et al. 2010	120	Median : Gr1 : 56 (41-85) Gr2 : 55 (35-77)	Gr1 : 19.2 Gr2 : 51.5	Retrospective	MRI	Arthroscopy	Subscapularis full thickness tear (FTT)
Balich et al. 1997	222	45 (16-76)	41.9	Retrospective	MRI 1.5 Tesla (T)	Arthroscopy	RC full (FTT) and partial (PTT) thickness tears of one or more tendon
Binkert 2001	156	51 (14-83)	41	Prospective	MRA 1.0 Tesla (T)	Arthroscopy or open surgery	FTT
Blanchard 1999	38	-	-	Prospective	MRI 0.5 or 1.5 T	Arthroscopy or open surgery	FTT
Brandt 1989	38	52 (20-73)	-	Retrospective and prospective	US 5 to 7.5 MHz	Surgery	FTT and PTT
Brenneke 1992	120	-	-	Prospective	US 5 MHz	Arthroscopy	FTT and PTT
Bretzke 1985	19	-	-	Prospective	US 10 MHz	Surgery	FTT and PTT

Chang 2002	75	Gr1 : 52 (18-78) Gr2 : 49 (17-84)	Gr1 : 41.2 Gr2 : 45.9	Retrospective	US 7 to 10 MHz, MRI 1.5 T	Surgery	FTT
Chiou 1999	55	-	-	Prospective	US 7 MHz	Surgery	FTT and PTT
Choo 2012	49	Women : 58 (19-71) Men : 53 (19-70)	55.1	Retrospective	2D and 3D MRA 3.0 T	Arthroscopy	FTT and PTT
Chun 2010	202	Gr1 : 54 Gr2 : 47	Gr1 : 48 Gr2 : 43.1	Retrospective	MRA 1.5 T	Arthroscopy	PTT
Cullen 2007	65 (PTT) 67 (FTT)	56 (33-81)	56.1	Prospective	US 5 to 12 MHz	Surgery	FTT and PTT
DeCandia 2002	157	Women : 58 Men : 50 (17-82)	56.1	Prospective	US 7 to 12 MHz	Surgery	FTT and PTT
De Muynck 1994	38	53 (26-77)	34	Prospective	US 7.5 MHz	Arthroscopy	FTT and PTT
Farin 1996	85	36 (22-72)	48.8	Prospective	US 7.5 MHz	Arthroscopy or open surgery	FTT, PTT and tendinopathy
Frei 2008	20	56	30	Retrospective	US 9 to 13 MHz and MRI 0.18 T	Arthroscopy	FTT and PTT
Friedmann 1993	46	-	-	Prospective	US 5 to 7.5 MHz	Surgery	FTT and PTT
Furtschegger 1988	68	-	-	Prospective	US 7.5 MHz	Surgery	FTT and PTT

Gagey 1991	38	47	-	Retrospective	MRI 1.5 T	Arthroscopy	FTT
Herold 2006	51	47 (16-69)	27.5	Prospective	MRA 1.5 T	Arthroscopy	FTT and PTT
Hitachi 2011	68	58 (13-79)	36.8	Prospective	MRI 1.5 T	Surgery	FTT and PTT
Hodler 1988	51	19-75	24	Prospective	US 5 to 7.5 MHz	Surgery	FTT and PTT
Hodler 1992	36	43 (17-69)	33.3	Retrospective	MRI 1.5 T and MRA 1.5 T	Arthroscopy	FTT and PTT
Iannotti 1991	127	-	-	Retrospective	MRI 1.5 T	Arthroscopy or open surgery	FTT, PTT and tendinopathy
Iannotti 2005	99	-	-	Prospective	US 7.5 MHz	Surgery	FTT and PTT
Jung 2010	22	45 (19-71)	45.5	Retrospective	MRA	Arthroscopy	PTT
Jung 2012	87	52 (17-82)	48.3	Retrospective	MRA 3.0 T	Arthroscopy	FTT and PTT
Kang 2009	50	56 (22-78)	36	Prospective	3D US 8 to 15 MHz and MRA 3.0 T	Arthroscopy	FTT
Karzel 1993	74	45 (16-68)	37.8	Prospective	MRI 1.5 T and MRA 1.5 T	Arthroscopy	FTT and PTT
Lambert 2009	192	56	-	Prospective	MRI 3.0 T	Arthroscopy or open surgery	FTT and PTT

Loew 2000	27	48 (21-81)	34.2	Prospective	MRA 0.2 T	Surgery	FTT
Mack 1988	90	-	-	Retrospective	US 5 to 7.5 MHz	Surgery	FTT and PTT
Magee 2006	150	52 (14-82)	38	Retrospective	MRI 3.0 T	Arthroscopy	FTT and PTT
Magee 2009	150	31 (14-50)	27.3	Retrospective	MRI 3.0 T and MRA 3.0 T	Arthroscopy	FTT and PTT
Martin-Hervas 2001	61	-	59	Prospective	US 7.5 MHz and MRI 0.5 T	Arthroscopy or open surgery	FTT, PTT and tendinopathy
Masaoka 1999	79	44 (20-79)	41.6	Retrospective	US 7.5 MHz	Surgery	FTT and PTT
Meister 2004	76	35 (15-72)	25	Retrospective	MRA 1.5 T	Arthroscopy	PTT
Milosavljevic 2005	190	57 (22-78)	-	Prospective	US 10 MHz	Arthroscopy	FTT and PTT
Misamore 1991	32	35-65	18.8	Prospective	US	Arthroscopy or open surgery	FTT and PTT
Modi 2013	103	30 (15-79)	26.2	Prospective	MRA 3.0 T	Arthroscopy	FTT and PTT
Mohtadi 2004	58	46 (21-73)	25.9	Prospective	MRA 1.5 T	Arthroscopy	FTT
Moosmayer 2005	79	Median : 54 (21-79)	-	Prospective	US 5.5 to 9.4 MHz	Arthroscopy or open surgery	FTT and PTT
Moosmayer 2007	58	Median : 52 (17-78)	-	Prospective	US 5.5 to 9.5	Surgery	FTT and PTT

					MHz		
Murphy 2013	50	-	-	Prospective	US 4.7 to 13 MHz	Arthroscopy	FTT and PTT
Naqvi 2009	91	(mean) US gr : 54.3 MRI gr : 56.6	US: 41.7 MRI: 36.4	Retrospective	US and MRI	Arthroscopy or open surgery	FTT
Ostor 2013	94	51 (16-78)	40	Prospective	MRI	Arthroscopy	FTT, PTT and tendinopathy
Paavolainen 1994	49	38 (24-76)	30.6	Prospective	US 7.5 MHz	Surgery	FTT
Pattee 1988	52	47 (28-71)	19.2	Prospective	US 7.5 MHz	Arthroscopy	FTT and PTT
Quinn 1995	100	47 (20-74)	46	Retrospective	MRI 1.5 T	Arthroscopy	FTT and PTT
Read 1998	42	44 (19-70)	-	Prospective	US 7.5 MHz	Arthroscopy or open surgery	FTT, PTT and tendinopathy
Roberts 2001	24	49 (37-75)	33.3	Prospective	US	Arthroscopy	FTT and PTT
Rutten 2010	68	48 (24-81)	45.6	Retrospective	US, (MRI or MRA 1.5 T)	Arthroscopy or open surgery	FTT and PTT
Schreinemachers 2009	92	34 (SD : 12)	33.7	Retrospective	MRA1.0 or 1.5 T	Arthroscopy	FTT and PTT
Shellock 2001	47	52 (16-83)	34	Prospective	MRI 0.2 T	Arthroscopy or open surgery	FTT and PTT
Singh 2010	15	-	-	Prospective	US 7.5 to 12.5	Surgery	FTT and PTT

					MHz		
Sipola 2010	(MRA) 75 (US) 77)	57 (42-76)	37	Prospective	MRA 1.5 T and US 7.5 MHz	Arthroscopy or open surgery	FTT and PTT
Soble 1989	30	17-85	-	Prospective	US 5 to 7.5 MHz	Surgery	FTT and PTT
Sonnabend 1997	117	49 (14-79)	29.1	Retrospective	US	Arthroscopy or open surgery	FTT, PTT and tendinopathy
Steston 2005	50	-	-	Prospective	MRA 1.5 T	Arthroscopy	PTT
Stoppino 2013	108	53 (25-77)	40.0	Prospective	MRA 1.5 T	Arthroscopy	FTT and PTT
Swen 1998	22	55 (30-79)	-	Prospective	US 5 to 7.5 MHz	Arthroscopy or open surgery	FTT
Swen 1999	21	54 (SD : 12)	41.7	Prospective	US 5 to 7.5 MHz and MRI 1.0 T	Arthroscopy	FTT
Taboury 1992	24	-	-	Retrospective	US 7.5 to 10 MHz	Arthroscopy	FTT and PTT
Takagishi 1996	122	51 (26-81)	36.9	Prospective	US 7.5 MHz	Surgery	FTT and PTT
Teefey 2000	100	56 (14-82)	55.1	Prospective	US 7.5 MHz	Arthroscopy	FTT and PTT
Teefey 2004	71	59 (38-80)	42.3	Prospective	US 7.5 to 9 MHz and MRI 1.5 T	Arthroscopy or open surgery	FTT and PTT

Traugher 1992	28	-	-	Retrospective	MRI 1.5 T	Arthroscopy or open surgery	FTT and PTT
Tuite 1994	87	42	27.6	Retrospective	MRI 1.5 T	Arthroscopy	FTT and PTT
Van Holsbeeck 1995	67	52 (23-86)	42.3	Prospective	US 7.5 MHz	Arthroscopy	PTT
Venu 2002	41	57 (34-79)	41.5	Prospective	US 5 to 10 MHz	Arthroscopy or open surgery	FTT, PTT and tendinopathy
Vlychou 2009	56	54	69.6	Prospective	US 8 to 13 MHz	Surgery	PTT
Waldt 2007	275	39 (15-73)	38.9	Retrospective	MRA 1.0 T	Arthroscopy	FTT and PTT
Wallny 2001	40	54 (38-79)	37.5	Prospective	US 10 MHz	Arthroscopy or open surgery	FTT and PTT
Wang 1994	40	49 (17-75)	37.5	Retrospective	MRI	Arthroscopy or open surgery	FTT and PTT
Weiner 1993	225	59 (21-81)	52.9	Prospective	US 5 to 7.5 MHz	Arthroscopy or open surgery	FTT and PTT
Wnorowski 1997	38	30 (20-75)	-	Retrospective	MRI 1.5 T	Arthroscopy	FTT and PTT
Yagci 2001	24	52 (16-73)	70.8	Prospective	MRI and MRA 1.0 T	Arthroscopy or open surgery	FTT and PTT
Yamakawa 2001	75 (Study gr : 60	Study gr : 57 (40-80)	25.9	Retrospective	MRI 0.5 T	Surgery	FTT and PTT

	Control gr : 15)						
Yen 2004	50	63 (17-81)	48	Prospective	US 7 to 10 MHz	Open surgery	FTT and PTT
Zehetgruber 2002	332	53 (17-90)	43.1	Prospective	US 7.5 MHz	Arthroscopy or open surgery	FTT and PTT
Ziegler 2004	282	50 (15-84)	38.7	Retrospective	US 7.5 MHz	Arthroscopy	FTT and PTT
Zlatkin 2004	22	56 (15-84)	43.1	Retrospective	MRI 0.2 T	Surgery	FTT and PTT