

Table S1 The reason and references of excluded full-texts studies

Author	Year	Exclusion reason	Reference		
Bailey <i>et al.</i>	2015	HCY_Intervention and Osteoporosis	(1-31)		
Baines <i>et al.</i>	2007				
Bhupathiraju <i>et al.</i>	2007				
Blouin <i>et al.</i>	2009				
Bozkurt <i>et al.</i>	2009				
Bucciarelli <i>et al.</i>	2010				
Cagnacci <i>et al.</i>	2008				
Dhonukshe-Rutten <i>et al.</i>	2003				
Ebesunun <i>et al.</i>	2014				
Enneman <i>et al.</i>	2015				
Enneman <i>et al.</i>	2014				
Garg <i>et al.</i>	2014				
Golbahar <i>et al.</i>	2004				
Haroon <i>et al.</i>	2012				
Karimi <i>et al.</i>	2011				
Kim <i>et al.</i>	2013				
Kuyumcu <i>et al.</i>	2012				
Li <i>et al.</i>	2017				
Liu <i>et al.</i>	2016				
Morris <i>et al.</i>	2005				
Ouzzif <i>et al.</i>	2012				
Rehackova <i>et al.</i>	2013				
Rejnmark <i>et al.</i>	2008				
Rumbak <i>et al.</i>	2012				
Salari <i>et al.</i>	2014				
Shahab-Ferdows <i>et al.</i>	2012				
Tarakida <i>et al.</i>	2011				
Vurucu <i>et al.</i>	2009				
Weber <i>et al.</i>	2016				
Yamada <i>et al.</i>	2011				
Yilmaz <i>et al.</i>	2009				
Cashman <i>et al.</i>	2005	Gene polymorphoism and homosysteinemia	(32-41)		
Cook <i>et al.</i>	2014				
Guttormsen <i>et al.</i>	1996				
Hong <i>et al.</i>	2007				
Lacasana <i>et al.</i>	2012				
Li <i>et al.</i>	2017				
Pandey <i>et al.</i>	2013				
Qin <i>et al.</i>	2012				
Saito <i>et al.</i>	2009				
Tongboonchoo <i>et al.</i>	2013				
Bathum <i>et al.</i>	2004			Gene polymorphism and Fracture	(42-47)
Chung <i>et al.</i>	2012				
Kim <i>et al.</i>	2016				
Shiraki <i>et al.</i>	2008				
Villadsen <i>et al.</i>	2005				
Yazdanpanah <i>et al.</i>	2008	No fracture data regarding HCY	(48-58)		
Herrmann <i>et al.</i>	2005				
Keser <i>et al.</i>	2013				
Komulainen-Ebrahim <i>et al.</i>	2017				
Kutilek <i>et al.</i>	2012				
Lacroix <i>et al.</i>	2008				
Meera <i>et al.</i>	2010				
Øyen <i>et al.</i>	2015				
Rhew <i>et al.</i>	2008				
Swart <i>et al.</i>	2016				
Tsuchie <i>et al.</i>	2016				
Zhu <i>et al.</i>	2016	Review	(59-72)		
Ahmadi H. <i>et al.</i>	2011				
Bailey <i>et al.</i>	2015				
Behera <i>et al.</i>	2017				
Clarke <i>et al.</i>	2014				
Fratoni <i>et al.</i>	2015				
Herrmann <i>et al.</i>	2006				
Herrmann <i>et al.</i>	2007				
Herrmann <i>et al.</i>	2008				
Hiraoka <i>et al.</i>	2017				
Mclean <i>et al.</i>	2007				
Nieves <i>et al.</i>	2012				
Petramala <i>et al.</i>	2009				
Saito <i>et al.</i>	2006				
Swart <i>et al.</i>	2013				
Colson <i>et al.</i>	2015			Meta-analysis	(73-77)
Ruan <i>et al.</i>	2015				
van Wijngaarden <i>et al.</i>	2013				
Yang <i>et al.</i>	2012	Non-research articles	(78-82)		
Zhang <i>et al.</i>	2014				
Ochi <i>et al.</i>	2017				
Raisz <i>et al.</i>	2004				
Spence <i>et al.</i>	2017				
van Meurs <i>et al.</i>	2005	No relevance	(83-86)		
No authors listed	2005				
Bezsmertnyi	2013				
Lanzoni <i>et al.</i>	2017				
Smulders <i>et al.</i>	2013				
Tyagi <i>et al.</i>	2011				
van Wijngaarden <i>et al.</i>	2011	Study rationale and design	(87)		
Luo <i>et al.</i>	2017	HCY and survival analysis	(88)		
Sato <i>et al.</i>	2005	Retracted	(89)		

	Study	Items			NOS	Study Design	
		Selection	Comparability	Outcome/Exposure			
Observational study	McLean <i>et al.</i> 2004	****	**	***	9	Prospective cohort study	
	van Meurs <i>et al.</i> 2004	****	**	***	9	Prospective cohort study	
	Dhonukshe-Rutten <i>et al.</i> 2005	****	**	***	9	Prospective cohort study	
	Ravaglia <i>et al.</i> 2005	****	**	***	9	Prospective cohort study	
	Sato <i>et al.</i> 2005	****	**	***	9	Cohort study	
	Sato <i>et al.</i> 2005 [§]	****	**	***	9	Prospective control study	
	Gerdhem <i>et al.</i> 2007	****	**	***	9	Prospective cohort study	
	Gjesdal <i>et al.</i> 2007	****	**	***	9	Prospective cohort study	
	Périer <i>et al.</i> 2007	****	**	***	9	Prospective cohort study	
	Sawka <i>et al.</i> 2007	****	**	***	9	Prospective cohort study	
	Yazdanpanah <i>et al.</i> 2007	****	**	***	9	Prospective cohort study	
	McLean <i>et al.</i> 2008	****	**	***	9	Prospective cohort study	
	LeBoff <i>et al.</i> 2009	****	**	***	9	Case-control study	
	Zhu <i>et al.</i> 2009	****	**	***	9	Cohort study	
	Shiraki <i>et al.</i> 2011	****	**	***	9	Prospective cohort study	
	El Maghraoui <i>et al.</i> 2012	****	**	**	8	Prospective cohort study	
	Enneman <i>et al.</i> 2012	****	**	***	9	Population-based cohort study	
	Kuroda <i>et al.</i> 2013	****	**	***	9	Cross-sectional cohort study	
	Lewerin <i>et al.</i> 2014	****	**	***	9	Prospective cohort study	
	Li <i>et al.</i> 2014	****	**	**	8	Cross-sectional cohort study	
Urano <i>et al.</i> 2014	****	**	***	9	Prospective cohort study		
Torbergesen <i>et al.</i> 2015	****	**	**	8	Case-control study		
Experimental study	Study	Items				Jadad	Study Design
		Generation of random sequence	Allocation concealment	Blinding	Withdrawal and dropout		
	Armitage <i>et al.</i> 2010	**	**	/	*	5	RCT
	Gommans <i>et al.</i> 2013	**	**	/	*	5	RCT
	Wijngaarden <i>et al.</i> 2014	**	**	/	*	5	RCT
Lopez <i>et al.</i> 2017	**	**	/	*	5	RCT	
NOS, Newcastle-Ottawa scale; RCT, randomized controlled trial							

Figure S1 Quality assessment of included studies. [§], article retracted; *, 1 point; **, 2 points; ***, 3 points; ****, 4 points.

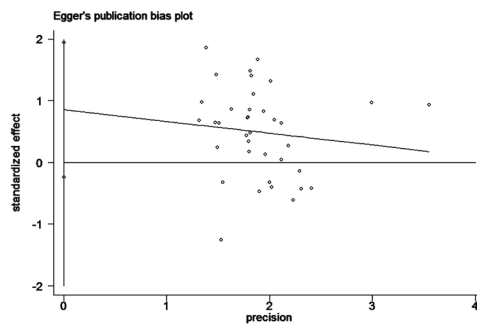


Figure S2 Egger's publicaiton bias plot.

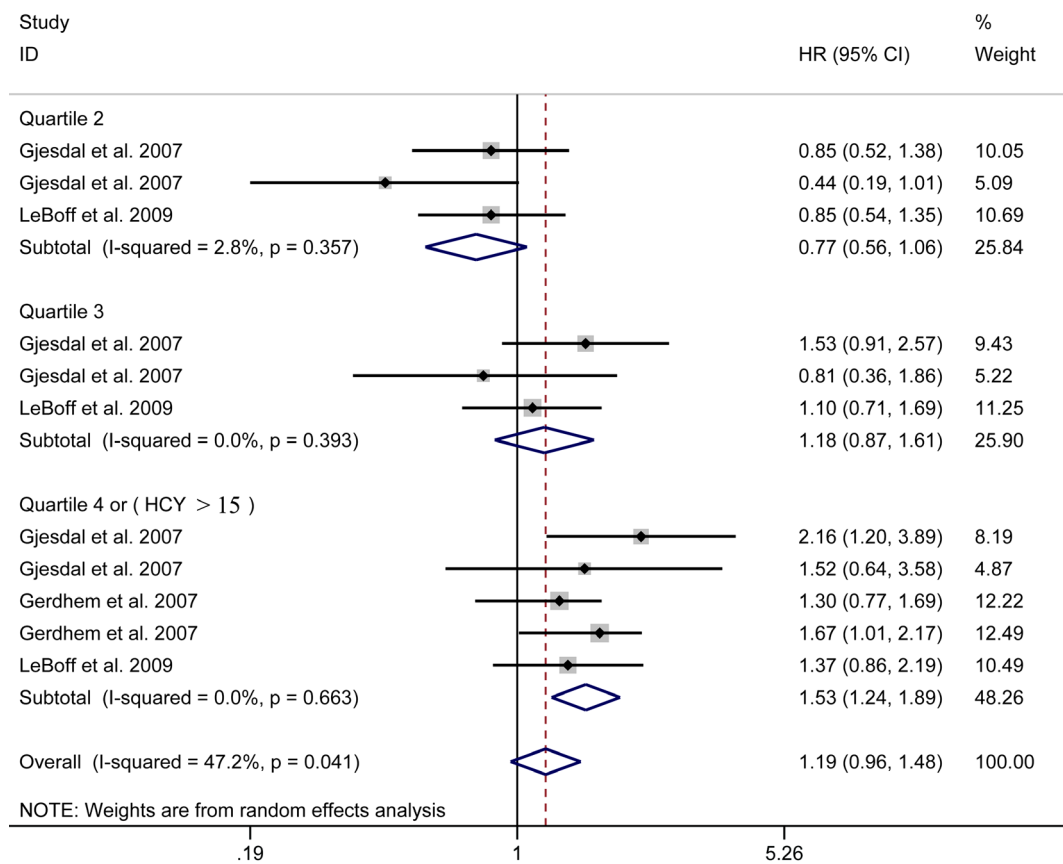


Figure S3 Subgroup analysis for hip fractures demonstrated that the results did not change either with overall data, or in the second, third and highest quartile.

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