

1 **S2 File. Literature search strategies.**

2 **Database: PubMed** (from inception to September 1, 2022)

3 **Search strategy:**

4 (((((((("Sarcopenia"[Mesh]) OR "Muscular Atrophy"[Mesh])) OR
 5 Sarcopenia[Title/Abstract]) OR loss of muscle mass[Title/Abstract]) OR loss of
 6 skeletal muscle mass[Title/Abstract]) OR decrease in muscle mass[Title/Abstract]) OR
 7 Muscular Atrophy[Title/Abstract])) AND (((((((("Osteoporosis,
 8 Postmenopausal"[Mesh]) OR "Osteoporosis"[Mesh] OR "Bone Diseases,
 9 Metabolic"[Mesh])) OR osteoporosis[Title/Abstract]) OR osteopenia[Title/Abstract])
 10 OR low bone mineral density[Title/Abstract]) OR loss of bone mass[Title/Abstract])
 11 OR decrease in bone mass[Title/Abstract])) AND (("Cohort Studies"[Mesh]) OR
 12 ("Case-Control Studies"[Mesh]) OR ("Cross-Sectional Studies"[Mesh]) OR
 13 ("Observational Studies as Topic"[Mesh]) OR ("Longitudinal Studies"[Mesh]) OR
 14 ("Odds Ratio"[Mesh]) OR ("Risk"[Mesh]) OR (odds AND ratio*) OR (relative AND
 15 risk) OR ((Cohort Stud*[Title/Abstract]) OR (Case-Control Stud*[Title/Abstract]) OR
 16 (Cross-Sectional Stud*[Title/Abstract]) OR (Observational Stud*[Title/Abstract])) OR
 17 (Longitudinal Stud*[Title/Abstract]))

18 **Database: Embase** (from inception to September 1, 2022)

19 **Search strategy:**

Search Number	Query	Results
#1	'sarcopenia'/exp OR sarcopenia	19653
#2	'osteoporosis'/exp OR osteoporosis	187444
#3	'osteopenia'/exp OR 'osteopenia'	26934
#4	#2 OR #3	197188
#5	cohort AND stud*	1337950
#6	'case control' AND stud*	273007

#7	'cross sectional' AND stud*	706092
#8	observational AND stud*	447834
#9	('longitudinal'/exp OR longitudinal) AND stud*	417695
#10	odds AND ratio*	440332
#11	'risk'/exp OR risk	4617823
#12	#5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11	6393242
#13	#1 AND #4 AND #12	1736