

Supplemental Table S1. Search strategy.

(a) Database: MEDLINE (PubMed)

Search period: January 1, 2017 to December 1, 2021, filters: language: English

#	Searches	Results
1	"metal*" [tiab] OR "Actinium" [tiab] OR "Aluminum" [tiab] OR "Americium" [tiab] OR "Antimony" [tiab] OR "Arsenic" [tiab] OR "Barium" [tiab] OR "Berkelium" [tiab] OR "Beryllium" [tiab] OR "Bismuth" [tiab] OR "Boron" [tiab] OR "Cadmium" [tiab] OR "Calcium" [tiab] OR "Californium" [tiab] OR "Cesium" [tiab] OR "Chromium" [tiab] OR "Cobalt" [tiab] OR "Copper" [tiab] OR "Curium" [tiab] OR "Einsteinium" [tiab] OR "Fermium" [tiab] OR "Francium" [tiab] OR "Gallium" [tiab] OR "Germanium" [tiab] OR "Gold" [tiab] OR "Hafnium" [tiab] OR "Indium" [tiab] OR "Iridium" [tiab] OR "Iron" [tiab] OR "Lawrencium" [tiab] OR "Lead" [tiab] OR "Lithium" [tiab] OR "Lutetium" [tiab] OR "Magnesium" [tiab] OR "Manganese" [tiab] OR "Mendelevium" [tiab] OR "Mercury" [tiab] OR "Molybdenum" [tiab] OR "Neptunium" [tiab] OR "Nickel" [tiab] OR "Niobium" [tiab] OR "Nobelium" [tiab] OR "Osmium" [tiab] OR "Palladium" [tiab] OR "Platinum" [tiab] OR "Plutonium" [tiab] OR "Polonium" [tiab] OR "Potassium" [tiab] OR "Protactinium" [tiab] OR "Radium" [tiab] OR "Rhenium" [tiab] OR "Rhodium" [tiab] OR "Rubidium" [tiab] OR "Ruthenium" [tiab] OR "Scandium" [tiab] OR "Silicon" [tiab] OR "Silver" [tiab] OR "Sodium" [tiab] OR "Strontium" [tiab] OR "Tantalum" [tiab] OR "Technetium" [tiab] OR "Tellurium" [tiab] OR "Thallium" [tiab] OR "Thorium" [tiab] OR "Tin" [tiab] OR "Titanium" [tiab] OR "Tungsten" [tiab] OR "Uranium" [tiab] OR "Vanadium" [tiab] OR "Yttrium" [tiab] OR "Zinc" [tiab] OR "Zirconium" [tiab] OR "Trace Elements" [Mesh] OR "metal mixture" [tiab] OR "multiple metal*" [tiab]	779,860
2	"Cardiometabolic Risk Factors" [Mesh] OR "Heart Diseases" [Mesh] OR "Vascular Diseases" [Mesh] OR "Blood Pressure" [Mesh] OR "Lipoproteins, HDL" [Mesh] OR "Lipoproteins, LDL" [Mesh] OR "Cardiovascular disease*" [tiab] OR "coronary artery*" [tiab] OR "coronary heart" [tiab] OR "cerebrovascular dis*" [tiab] OR "atherosclerosis*" [tiab] OR "carotid artery" [tiab] OR "peripheral arterial dis*" [tiab] OR "hypercholesterolemia*" [tiab] OR "hyperlipidemia*" [tiab] OR "dyslipidemia*" [tiab] OR "serum lipid" [tiab] OR "carotid intima media thickness" [Mesh] OR "endothelial function" [tiab] OR "Cardiovascular Physiological Phenomena" [Mesh] OR "heart rate" [Mesh] OR "vascular stiffness" [Mesh] OR "cardiac*" [Mesh] OR "cardiovascular" [tiab] OR "metabolic" [tiab] OR "inflammatory" [tiab] OR "cardio*" [tiab]	976,224
3	"Prenatal" [tiab] OR "perinatal" [tiab] OR "pregnancy" [Mesh] OR "peripartum" [tiab] OR "postnatal" [tiab] OR "postpartum" [tiab] OR "placenta" [Mesh] OR "cord blood" [tiab]	15,102
4	"child*" [Mesh] OR "infan*" [Mesh] OR "adolescen*" [Mesh] OR "newborn" [tiab] OR "offspring" [tiab] OR "early life" [tiab]	633,783
5	#1 AND #2	108,660
6	#1 AND #2 AND #3	455
7	#1 AND #2 AND #3 AND #4	172

(b) Database: Web of Science

Search period: January 1, 2017 to December 1, 2021, filters: language: English

#	Searches	Results
1	AB=("metals" OR "Actinium" OR "Aluminum" OR "Americium" OR "Antimony" OR "Arsenic" OR "Barium" OR "Berkelium" OR "Beryllium" OR "Bismuth" OR "Boron" OR "Cadmium" OR "Calcium" OR "Californium" OR "Cesium" OR "Chromium" OR "Cobalt" OR "Copper" OR "Curium" OR "Einsteinium" OR "Fermium" OR "Francium" OR "Gallium" OR "Germanium" OR "Gold" OR "Hafnium" OR "Indium" OR "Iridium" OR "Iron" OR "Lawrencium" OR "Lead" OR "Lithium" OR "Lutetium" OR "Magnesium" OR "Manganese" OR "Mendelevium" OR "Mercury" OR "Molybdenum" OR "Neptunium" OR "Nickel" OR "Niobium" OR "Nobelium" OR "Osmium" OR "Palladium" OR "Platinum" OR "Plutonium" OR "Polonium" OR "Potassium" OR "Protactinium" OR "Radium" OR "Rhenium" OR "Rhodium" OR "Rubidium" OR "Ruthenium" OR "Scandium" OR "Silicon" OR "Silver" OR "Sodium" OR "Strontium" OR "Tantalum" OR "Technetium" OR "Tellurium" OR "Thallium" OR "Thorium" OR "Tin" OR "Titanium" OR "Tungsten" OR "Uranium" OR "Vanadium" OR "Yttrium" OR "Zinc" OR "Zirconium" (Title) or "metals" OR "Actinium" OR "Aluminum" OR "Americium" OR "Antimony" OR "Arsenic" OR "Barium" OR "Berkelium" OR "Beryllium" OR "Bismuth" OR "Boron" OR "Cadmium" OR "Calcium" OR "Californium" OR "Cesium" OR "Chromium" OR "Cobalt" OR "Copper" OR "Curium" OR "Einsteinium" OR "Fermium" OR "Francium" OR "Gallium" OR "Germanium" OR "Gold" OR "Hafnium" OR "Indium" OR "Iridium" OR "Iron" OR "Lawrencium" OR "Lead" OR "Lithium" OR "Lutetium" OR "Magnesium" OR "Manganese" OR "Mendelevium" OR "Mercury" OR "Molybdenum" OR "Neptunium" OR "Nickel" OR "Niobium" OR "Nobelium" OR "Osmium" OR "Palladium" OR "Platinum" OR "Plutonium" OR "Polonium" OR "Potassium" OR "Protactinium" OR "Radium" OR "Rhenium" OR "Rhodium" OR "Rubidium" OR "Ruthenium" OR "Scandium" OR "Silicon" OR "Silver" OR "Sodium" OR "Strontium" OR "Tantalum" OR "Technetium" OR "Tellurium" OR "Thallium" OR "Thorium" OR "Tin" OR "Titanium" OR "Tungsten" OR "Uranium" OR "Vanadium" OR "Yttrium" OR "Zinc" OR "Zirconium" OR "Trace Elements" OR "Trace Elements")	1,482,922
2	AB=("Cardiometabolic Risk Factors" OR "Heart Diseases" OR "Vascular Diseases" OR "Blood Pressure" OR "Lipoproteins, HDL" OR "Lipoproteins, LDL" OR "Cardiovascular disease*" OR "coronary artery*" OR "coronary heart" OR "cerebrovascular dis*" OR "atherosclerosis*" OR "carotid artery" OR "peripheral arterial dis*" OR "hypercholesterolemia*" OR "hyperlipidemia*" OR "dyslipidemia*" OR "serum lipid" OR "carotid intima media thickness" OR "endothelial function" OR "Cardiovascular Physiological Phenomena" OR "heart rate" OR "vascular stiffness" OR "cardiac*" OR "cardiovascular" OR "metabolic" OR "inflammatory" OR "cardio*")	786,093
3	AB=("Prenatal" OR "perinatal" OR "pregnancy" OR "peripartum" OR "postnatal" OR "postpartum" OR "placenta" OR "cord blood")	146,735
4	AB=("child*" OR "infan*" OR "adolescenc*" OR "newborn" OR "offspring" OR "early life")	573,785
5	#1 AND #2	89,817
6	#1 AND #2 AND #3	2,349
7	#1 AND #2 AND #3 AND #4	845