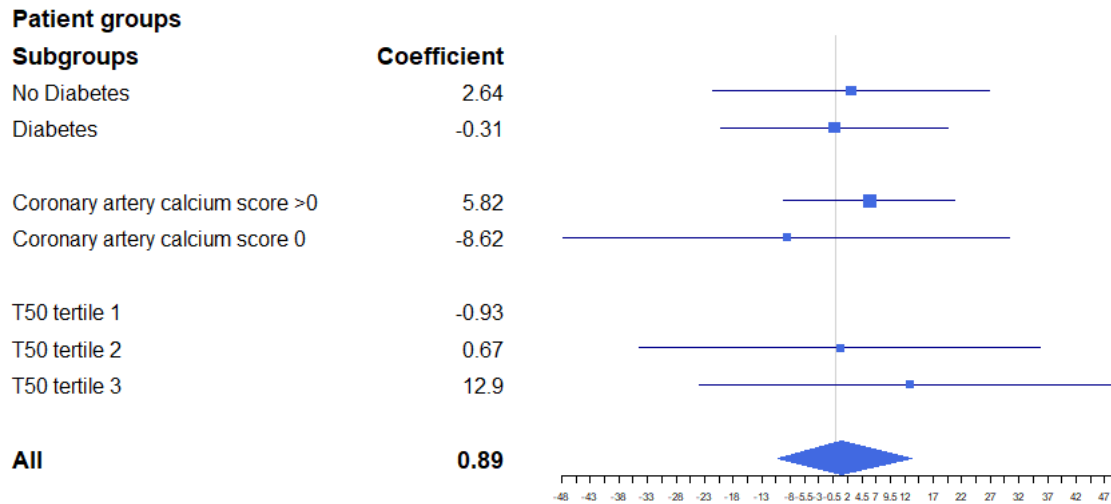


The Effect of Magnesium Supplementation on Vascular Calcification in Chronic Kidney Disease - A Randomized Clinical Trial (MAGiCAL-CKD)

Iain Bressendorff, Ditte Hansen, Morten Schou, Charlotte Kragelund, My Svensson, Bahram Hashemi, Tilde Kristensen, Marie Houmaa Vrist, Rikke Borg, Birgitte Tougaard, Kristine Borg, Henrik Øder Hjortkjær, Cathrine Helgestad Kristiansen, Nicholas Carlson, Mohammad Nasiri, Haseem Ashraf, Andreas Pasch, Lisbet Brandt

Supplemental Material:

Supplementary figure 1 – Effect of magnesium supplementation on CAC score in subgroups:



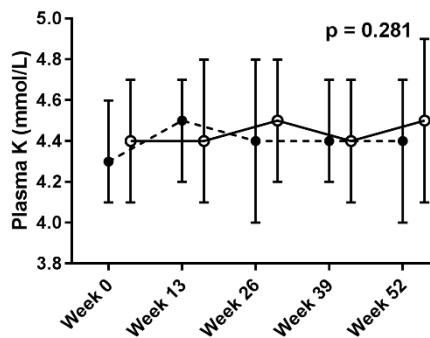
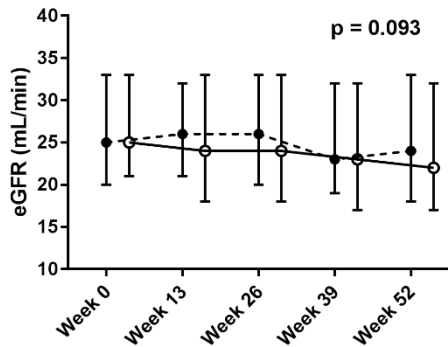
Supplementary figure 2 – Longitudinal effects of magnesium on kidney function and potassium:

Analysis of changes over time in the serial measurements of estimated glomerular filtration rate and plasma potassium using linear mixed models with basic random intercept and compound symmetry covariance structure.

Error bars represent mean and standard deviation or median and interquartile range, as relevant.

eGFR, estimated glomerular filtration rate; K, potassium.

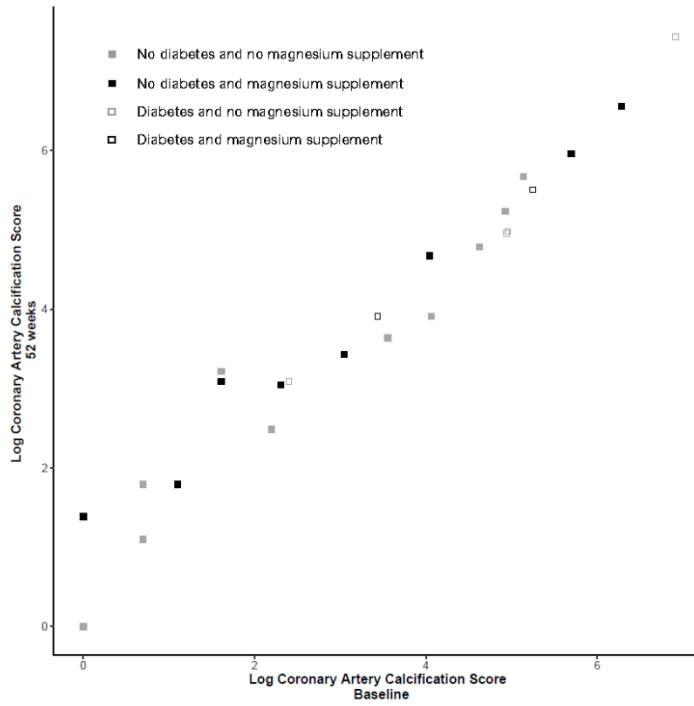
● = placebo (n = 73), ○ = magnesium (n = 75)



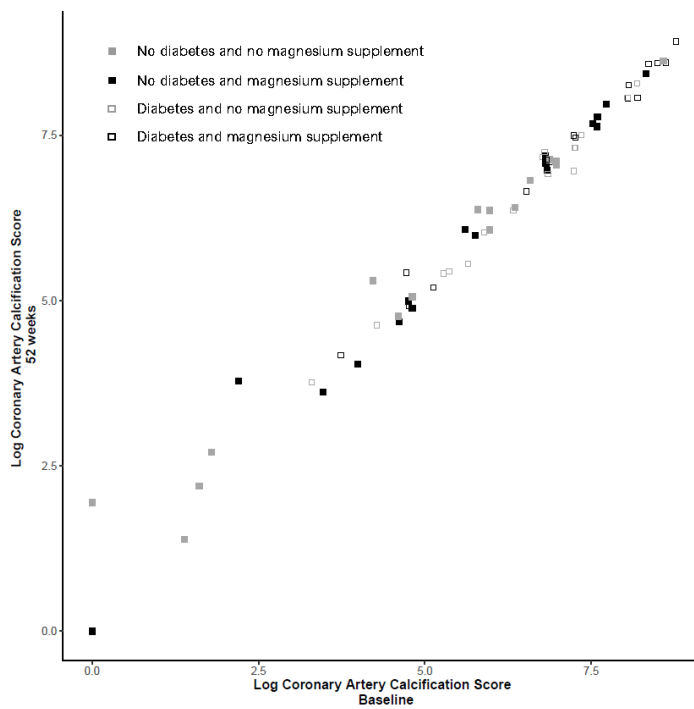
Supplementary figure 3:

Log coronary artery calcification score at 52 weeks and baseline in age-grouped participants with stratification on diabetes and treatment

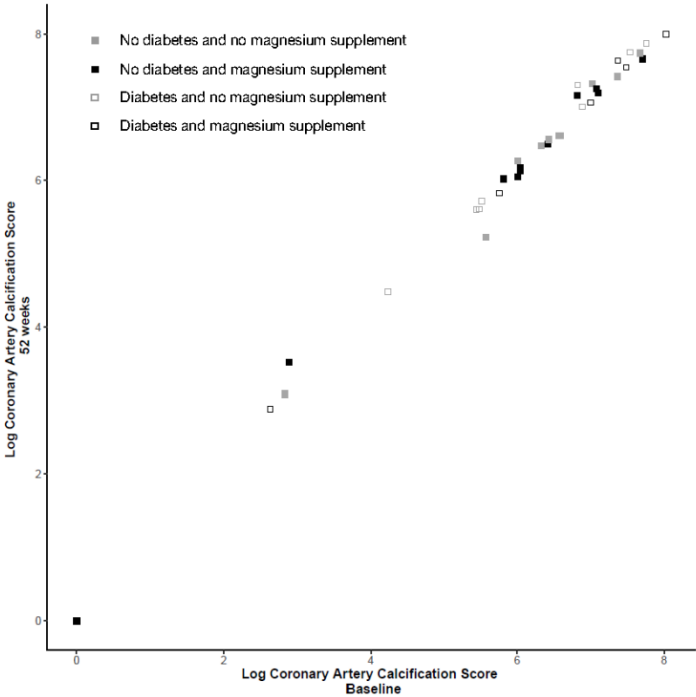
Age-tertile 1:



Age-tertile 2:



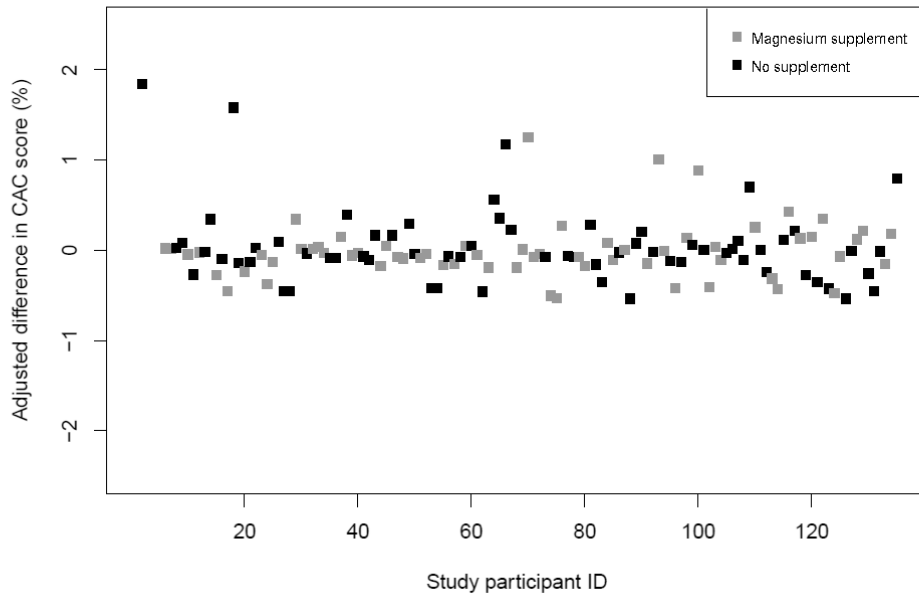
Age-tertile 3:



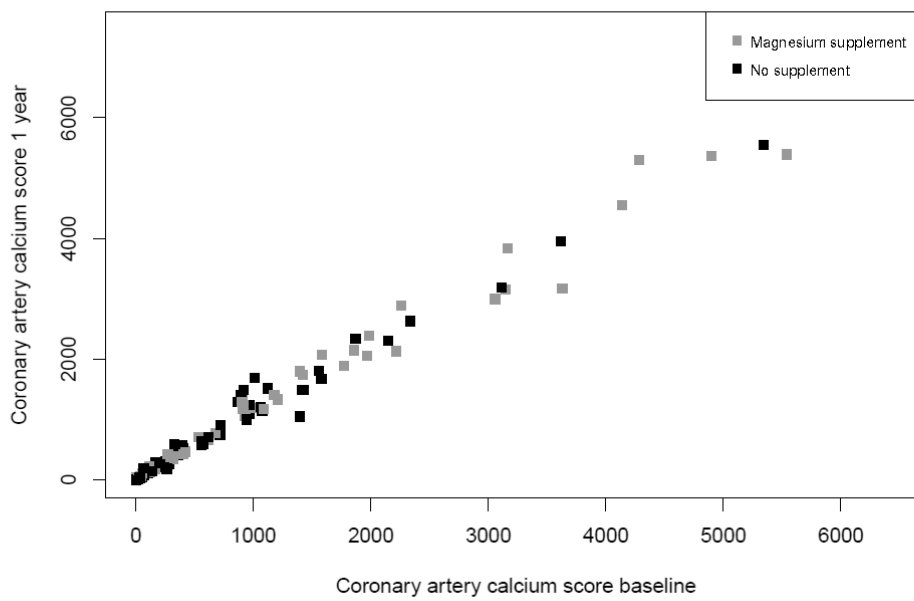
Supplementary figure 4:

Effect plots stratified on treatment with magnesium supplement and placebo.

Indexed on individual participant



Indexed on Coronary Artery Calcification Score at baseline



Supplementary table 1 - Serious Adverse Events

Magnesium			Placebo		
Event	Time of event (week)	Last measured plasma Mg	Event	Time of event	Last measured plasma Mg
Death			Death		
6 (4 cardiovascular cause, 1 cancer)			2 (1 unknown cause, 1 cancer)		
Cardiovascular events			Cardiovascular events		
6					
Heart failure, died week 34, CAC score 402	18	1.03			
Stroke secondary to bacterial meningitis, partially resolved, CAC score 2	49	0.98			
Sudden death, likely myocardial infarction or stroke, CAC score 3453	3	0.70			
Sudden death, likely myocardial infarction, CAC score 2860	36	0.86			
Massive ischemic stroke, died week 40, CAC score 2231	20	0.87			
Sudden death, unknown cause, CAC score 1407	17	0.75			
Cancer			Cancer		
Carcinoid tumor with metastases to liver discovered on CT scan at week 0, died week 33	33	0.78	Tongue cancer, radiotherapy	41	0.76
			Pancreatic cancer, died week 51	45	0.80
			Lung cancer, lobectomy	30	0.99
Infection			Infection		
Pneumonia, resolved	14	1.03	Urinary tract infection, resolved	16	1.01
Influenza, resolved	49	0.96	Diverticulitis, resolved	9	0.90
Infection in toe, resolved	34	0.86	Urinary tract infection, resolved	43	0.86
Bacterial meningitis, resolved	47	0.98	Pneumonia, resolved	20	0.86
Bacterial gastroenteritis, resolved	24	1.02			
Sepsis, resolved	18	0.83			
Urinary tract infection, resolved	37	0.88			
Gout attack			Gout attack		
6			1		
Other			Other		
Pulmonary congestion, resolved	6	0.98	Fall, fractured elbow, resolved	15	0.70
Pancreatitis, resolved	30	0.86	Syncope, resolved	6	0.72
Plural effusion x 3, resolved	10,11 and 13	0.69	Gastrointestinal bleed, resolved	41	0.80
Pulmonary congestion, died during admission	36	0.86	Syncope, fractured nose, resolved	39	0.75

