

## VITAL Study Data Dictionary

Variable	SAS Variable Name	SAS Variable Label
Subject ID	Subject_ID	Assigned Study ID
Randomization to active Vitamin D	vitdactive	Vitamin D 1-Active,0-Placebo
Randomization to active n-3 fatty acids	fishoilactive	Omega-3 Fatty Acids 1-Active,0-Placebo
<b>Demographic Variables</b>		
Female sex	sex	Sex 1-male,2-female
Age (integer years, truncated at 90+)	ageyr	Age at randomization to VITAL study, years
Race or ethnic group	raceth	Race/ethnic group 1-NonHisp White,2-Black,3-Hispanic,4-Asian,5-Native American or Alaskan,6=Others/unknown
<b>Baseline Variables</b>		
Body-mass index (kg/m <sup>2</sup> )	bmi	Body mass index at randomization, kg/m2
Current smoking	currsmk	Current smoking 1=yes,0=no
Hypertension treated with medication	htnmed	Hypertension treated with medication 1=yes,0=no
Current use of cholesterol-lowering medication	cholmed	Current use of cholesterol-lowering medications 1=yes,0=no
Diabetes	diabetes	Baseline diabetes 1=yes,0=no
Use of medication for diabetes	diabmed	Medication for diabetes 1=yes,0=no
Parental history of myocardial infarction	parhxm	Parental history of myocardial infarction 1=yes,0=no
Fish consumption ( $\geq$ median of 1.5 servings/wk)	fish1_5wk	Total fish intake $\geq$ 1.5 servings per week 1=yes, 0=no
Baseline aspirin use	Aspirin	Baseline Aspirin use 1=yes,0=no
Baseline statin use	statins	Baseline statin 1=yes,0=no
No. of cardiovascular risk factors (0, 1, 2+)	N_risk_factors	Number of cardiovascular risk factors 0=None,1-One risk factor,2->one risk factor
Baseline Vitamin D intake $\leq$ 800 IU	VitDIntake	Baseline vitamin D intake 1-none,2- $\leq$ 800 IU
Baseline 25(OH)D level $\geq$ 20 ng/ml	VitD20	Baseline serum 25-hydroxyvitamin D 1- $\geq$ 20, 0-< 20 ng/mL
Baseline 25(OH)D level $\geq$ 31 ng/ml	VitD31	Baseline serum 25-hydroxyvitamin D median 1- $\geq$ 31, 0-< 30 ng/mL
<b>Outcomes</b>		
<i>Cancer</i>		
Invasive cancer of any type	malca	Malignant cancer 1=yes,0=no
Cancer person-years	malcayrs	Malignant cancer person-years
Breast cancer	brca	Malignant breast cancer 1=yes,0=no
Breast cancer person-years	brcayrs	Breast cancer person-years
Prostate cancer	prca	Malignant prostate cancer 1=yes,0=no
Prostate cancer person-years	prcayrs	Prostate cancer person-years
Colorectal cancer	colca	Malignant colorectal cancer 1=yes,0=no
Colorectal cancer person-years	colcayrs	Colon cancer person-years

<i>Cardiovascular disease (CVD)</i>		
Major cardiovascular events	majorcvd	Major cardiovascular events 1-yes,0-no
Major CVD person-years	majryears	Major cardiovascular events person-years
Expanded CVD events	imporcvd	Expanded cardiovascular events 1-yes,0-no
Expanded CVD person-years	impryears	Expanded cardiovascular events person-years
Myocardial infarction (MI)	totmi	Total myocardial infarction 1-yes,0-no
MI person-years	miyears	Myocardial infarction events person-years
Stroke	totst	Total stroke 1-yes,0-no
Stroke person-years	styears	Stroke person-years
<i>Other Cardiovascular End Points</i>		
Total coronary heart disease (CHD)	totchd	Total coronary heart disease 1-yes,0-no
CHD person-years	chdyears	Coronary heart disease person-years
Ischemic stroke	ischemic	Ischemic stroke 1-yes,0-no
Ischemic stroke person-years	styears	Same as stroke person-years
Hemorrhagic stroke	hemorrhg	Hemorrhagic stroke 1-yes,0-no
Hemorrhagic stroke person-years	styears	Same as stroke person-years
Percutaneous coronary intervention (PCI)	ptca	Percutaneous coronary intervention (PCI) 1-yes,0-no
PCI person-years	ptcayears	PCI person-years
Coronary artery bypass graft (CABG)	cabg	Coronary artery bypass graft (CABG) 1-yes,0-no
CABG person-years	cabgyears	CABG person-years
<i>Deaths</i>		
Death from any cause	confdeath	Confirmed death 1-yes,0-no
Death from Cancer	cadeath	Death from cancer 1-yes,0-no
Death from cardiovascular causes	cvdeath	Death from cardiovascular causes 1-yes,0-no
Death from coronary heart disease	chdeath	Death from coronary heart disease 1-yes,0-no
Death from myocardial infarction	mideath	Death from myocardial infarction 1-yes,0-no
Death from stroke	stdeath	Death from stroke 1-yes,0-no
Death person-years	randyrs	Death person-years
<b>Adverse events</b>		
Gastrointestinal bleeding	reptgbld	Reported gastrointestinal bleeding 1-yes,0-no
Gastrointestinal bleeding person-years	gbldyears	Gastrointestinal bleeding person-years
Bad taste in month	repttaste	Reported bad taste in mouth 1-yes,0-no
Bad taste in mouth person-years	tasteyears	Bad taste in mouth person-years
Blood in urine	repturine	Reported blood in urine 1-yes,0-no
Blood in urine person-years	urineyears	Blood in urine person-years
Constipation	reptconst	Reported constipation 1-yes,0-no
Constipation person-years	constyears	Constipation person-years
Diarrhea	reptdiarr	Reported diarrhea 1-yes,0-no
Diarrhea person-years	diarryears	Diarrhea person-years
Easy bruising	reptbruis	Reported easy bruising 1-yes,0-no

Easy bruising person-years	bruiseyears	Easy bruising person-years
Frequent nosebleeds	reptnbld	Reported frequent nosebleeds 1=yes,0=no
Frequent nosebleeds person-years	nbldyears	Frequent nosebleeds person-years
Hypercalcemia	repthycal	Reported Hypercalcemia 1=yes,0=no
Hypercalcemia person- years	hycalyears	Hypercalcemia person- years
Parathyroid condition	reptpara	Reported parathyroid condition 1=yes,0=no
Parathyroid person- years	parayears	Parathyroid person- years
Stomach upset or pain	reptspain	Reported stomach upset or pain 1=yes,0=no
Stomach upset or pain person-years	spainyears	Stomach upset or pain person-years
Skin rash	reptrash	Reported skin rash 1=yes,0=no
Skin rash person-years	rashyears	Skin rash person-years
Kidney stones	reptkidst	Reported kidney stones 1=yes,0=no
Kidney stones person-years	kidstyears	Kidney stones person-years
Kidney failure or dialysis	reptkidf	Reported kidney failure 1=yes,0=no
Kidney failure person-years	kidfyears	Kidney failure person-years
Increased burping	reptburp	Reported increased burping 1=yes,0=no
Increased burping person-years	burpyears	Increased burping person-years
Nausea	reptnaus	Reported nausea 1=yes,0=no
Nausea person-years	nausyears	Nausea person-years

### VITAL-STATIN Study Data Dictionary

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Statin-associated muscle symptoms (SAMS). Defined as non-missing/negative (NO))/unknown (Unsure) answers on Question 1 in the statin questionnaire	statinconf	VITAL-STATINS ancillary population: Confirmed statins use 1=Yes
Musculoskeletal aches while on statins lasting more than few days and answered question about stopped statins: Questions ##2, and 3 in the statin questionnaire	muscachest	SAMS 1=Yes, 0=No, .=-Missing
Stopped use statins because of discomfort: Question #3	stopstatin	Stopped statin 1=Yes, 0=No, .- Missing answer

### VITAL-TKR Study Data Dictionary

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<b>Demographic Variables</b>		
Female sex	sex	Sex 1-male,2-female
Age (integer years, truncated at 90+)	ageyr	Age at randomization to VITAL study, years
Race or ethnic group	raceth	Race/ethnic group 1-NonHisp White,2-Black,3-Hispanic,4-Asian,5-Native American or Alaskan,6=Others/unknown
<b>Baseline Variables</b>		
Body-mass index (kg/m <sup>2</sup> )	bmi	Body mass index at randomization, kg/m2
Knee pain frequency	KneePainFreq	Frequency of knee pain 1=Never 2=<1 day/wk 3=1~2 days/wk 4=3~6 days/wk 5=daily
Prior total knee replacement	KneesReplacedV2	Have you had a knee replacement surgery? (1=Yes, 2=No)
Bilateral knee pain	bikneepain	Bilateral knee pain 1=Yes 0=No
Unilateral knee pain	unikneepain	Unilateral knee pain 1=Yes 0=No
Acetaminophen use	tylenolbase	Tylenol use at baseline 1=never 2=occational 3=daily 9=missing
Non steroidal anti-inflammatory use	nsaidsbase	Nsaids use at baseline 1=never 2=occational 3=daily 9=missing
Analgesics including opioids	strongerbase	Stronger med use at baseline 1=never 2=occational 3=daily 9=missing
WOMAC Pain	pain_base	WOMAC Pain score at baseline
WOMAC function	function_base	WOMAC function score at baseline
WOMAC Stiffness	stiffness_base	WOMAC stiffness score at baseline
<b>Outcomes</b>		
WOMAC Pain*	pain_yrX	WOMAC Pain score at follow up
WOMAC Function*	function_yrX	WOMAC function score at follow up
WOMAC Stiffness*	stiffness_yrX	WOMAC stiffness score at follow up
Incident Total Knee Replacement	tkrf	Incident total knee replacement 1=Yes 0=No
Death from any cause	confdeath	Confirmed death 1=yes,0-no
*WOMAC scores at each available follow up time point		