

Determinants of Plasma Retinol and Beta-Carotene Levels

Summary:

Observational studies have suggested that low dietary intake or low plasma concentrations of retinol, beta-carotene, or other carotenoids might be associated with increased risk of developing certain types of cancer. However, relatively few studies have investigated the determinants of plasma concentrations of these micronutrients. We designed a cross-sectional study to investigate the relationship between personal characteristics and dietary factors, and plasma concentrations of retinol, beta-carotene and other carotenoids. Study subjects ($n = 315$) were patients who had an elective surgical procedure during a three-year period to biopsy or remove a lesion of the lung, colon, breast, skin, ovary or uterus that was found to be non-cancerous.

Authorization: Contact Authors

Reference: These data have not been published yet but a related reference is Nierenberg DW, Stukel TA, Baron JA, Dain BJ, Greenberg ER. Determinants of plasma levels of beta-carotene and retinol. American Journal of Epidemiology 1989;130:511-521.

Description: This datafile contains 315 observations on 14 variables. This data set can be used to demonstrate multiple regression, transformations, categorical variables, outliers, pooled tests of significance and model building strategies.

Variable Names in order from left to right:

AGE: Age (years)

SEX: Sex (1=Male, 2=Female).

SMOKSTAT: Smoking status (1=Never, 2=Former, 3=Current Smoker)

QUETELET: Quetelet (weight/(height²))

VITUSE: Vitamin Use (1=Yes, fairly often, 2=Yes, not often, 3=No)

CALORIES: Number of calories consumed per day.

FAT: Grams of fat consumed per day.

FIBER: Grams of fiber consumed per day.

ALCOHOL: Number of alcoholic drinks consumed per week.

CHOLESTEROL: Cholesterol consumed (mg per day).

BETADIET: Dietary beta-carotene consumed (mcg per day).

RETDIET: Dietary retinol consumed (mcg per day)

BETAPLASMA: Plasma beta-carotene (ng/ml)

RETPLASMA: Plasma Retinol (ng/ml)

Therese Stukel

Dartmouth Hitchcock Medical Center

One Medical Center Dr.

Lebanon, NH 03756

e-mail: stukel@dartmouth.edu