

## — Vitamins, Minerals & Dietary Fatty Acids

### Vitamins

Vitamins are substances that your body needs to grow and develop normally. There are 13 vitamins your body needs. They are Vitamin A, B vitamins (thiamine, riboflavin, niacin, pantothenic acid, biotin, vitamin B-6, vitamin B-12 and folate), Vitamin C, Vitamin D, Vitamin E, and Vitamin K.

Hide

— NICOTINIC ACID  
(ng/mL)

<20

Range: See Comments

#### NICOTINIC ACID

(ng/mL)

##### Result Comments

Due to the large variability in the metabolism of nicotinic acid, the dosing preparation used (immediate-release vs. extended release), and the mg doses used, the serum concentrations may range from less than 20 ng/mL to about 30,000 ng/mL. After oral administration of an immediate-release tablet, peak plasma concentrations occur in 4 to 5 hours. The plasma half-life of nicotinic acid is about one hour. In one study, fasting plasma concentrations were reported to be less than 20 ng/mL. In another study, it was reported that the administration of a single 1000 mg extended-release tablet resulted in mean nicotinic acid concentrations of less than 50 ng/mL.

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics. It has not been cleared or approved by the FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.

— NICOTINAMIDE  
(ng/mL)

21

Range: See Comments

#### NICOTINAMIDE

(ng/mL)

##### Result Comments

Nicotinamide is a metabolite of nicotinic acid. Due to the large variability in the metabolism of nicotinic acid, plasma concentrations of this metabolite are variable. In one study, fasting plasma concentrations were reported to be approximately

concentrations were reported to be approximately 40 ng/mL. In another study it was reported that the administration of a single 1000 mg of extended-release tablet of nicotinic acid resulted in a mean peak nicotinamide concentration of 400 ng/mL between 5 and 10 hours post dose, decreasing to about 100 ng/mL by 16 hours post dose.

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