

**FORTIFIED COFFEE DRINK**

This invention relates to a low fat vitamin and mineral fortified powder coffee mix and to the fortified coffee drink produced upon reconstitution of the powder mix with hot water.

**BACKGROUND**

Increased awareness of the benefits attributable to a diet rich in essential nutrients and vitamins have resulted in food processors enriching a variety of food products such as breakfast cereals, breads, milk and juices. The present invention is a twist on this goal by fortifying a beverage that normally does not contribute nutrients to the diet.

Coffee is a widely consumed beverage that provides negligible nutritional support to the consumer. However, it is the primary source of caffeine used by many individuals as their morning stimulant. Caffeine also acts as a diuretic. Consequently, while the consumer is waking up with their morning coffee, the caffeine is flushing water-soluble vitamins from the body faster than usual.

There has been a rise in consumption of all the special blend, full bodied, dark roasted coffees. While the calorie and fat content of these special blends remain negligible, the specialty coffees have less caffeine than the coffee made from cans of regular coffee bought at the supermarket. This is due to the type of beans used for the specialty coffees. The specialty coffees are made from arabica beans that impart a stronger taste but less caffeine than the robusta beans incorporated into the coffee such as Folger's and Maxwell House. In addition the process of dark roasting the coffee beans burns off more caffeine than the light roasting of beans in most supermarket varieties. Caffeine content of coffee from different sources are listed in Table 1. For example, a five-ounce cup of drip coffee contains 110 to 150 milligrams of caffeine depending on how strong it is made. A six ounce cup of Starbucks's coffee has only 81 milligrams of caffeine. The caffeine content of plain espresso is less than a five ounce cup of drip coffee. Latte, mocha drinks and cappuccino are made with a shot of espresso. Consequently the caffeine content of the specialty drinks are also lower than drip coffee.

Variations on a cup of black coffee such as cappuccino, latte, espresso, cafe mocha have become very popular. While the caffeine contents of these specialty drinks are lower than drip coffee, these variations add hidden calories and fat to the coffee beverage. All of the specialty drinks mentioned above start with Espresso which is made from the arabica beans but is brewed with less water. Latte is espresso diluted with steamed milk topped with frothed milk. Mocha drinks generally contain espresso, less steamed milk than a latte, an ounce or two of mocha or chocolate syrup, and topped with frothed milk. Cappuccino is made with espresso, less steamed milk than a mocha, and a large foam cap frothed from another couple of ounces of milk.

These specialty coffee beverages are replacing the high calorie and high fat snack items in an individuals diet. However, many specialty coffee beverages are made with enough milk and syrup to equal or exceed the fat and calories in traditional desserts. For example, a large Cafe Mocha from Starbucks made with whole milk contains 409 calories and 31 grams of fat. Add whipped cream and the total calories approach 500 calories with 40 grams of fat. Mocha beverages tend to have the most fat and calories in all the gourmet coffee shops, in part because they contain larger quantities of milk and one to two ounces of chocolate syrup. A latte from The Coffee Beanery made with whole milk and topped with whipped cream and grated milk chocolate supplies 350 calories and 20 grams of fat. As for cappuccino, it tends to run relatively low in calories and fat as long as whipped cream is not added. A large cappuccino at Au Bon Pain made with 2% fat milk has 156 calories and 6 grams of fat. An added shot of hazelnut, vanilla or some other type of syrup to any of the specialty coffee beverages can add at least another 40 calories. Putting whipped cream on top of any coffee beverage will add in the neighborhood of 60 calories and 5 grams of fat. The fat content in all these specialty coffee beverages can be decreased by making the coffee beverage with skim milk instead of whole or 2% fat milk. Table 1 compares the caffeine, calories and fat content of coffee beverages made with skim, 2% or whole milk from different sources.

**TABLE 1**

Caffeine, Calorie and Fat Content of Coffee Beverages from Different Sources			
Coffee Beverage	Caffeine (mg)	Calories (skim/2%/whole milk)	Fat (g) (skim/2%/whole milk)
<u>Coffee, black</u>			
Dunkin' Donuts (8 oz)	104		
McDonald's (6 oz)	60		
Starbucks (5.8 oz)	81		
Au Bon Pain (9 oz)	171		
Instant, Decaf (6 oz)	2		
<u>Espresso</u>			
Starbucks (0.7 oz)	57		
Au Bon Pain (2.6 oz)	130		
Gloria Jean's Coffee Bean (2.7 oz)	51		
<u>Cappuccino</u>			
Starbucks (8 oz)	57	57/79/99	0/3/5
Au Bon Pain (10 oz)	65	71/99	0/4
Gloria Jean's Coffee Bean (8 oz)	51	68	3