Calcium During Pregnancy

Calcium is a vital mineral during pregnancy and lactation (breast feeding). As commonly known, it is essential for the development of strong, healthy bones and teeth in the baby. Calcium is also required for proper growth and functioning of muscles, as well as the nervous and circulatory systems. It must be present in adequate amounts to develop a normal heart rhythm and blood clotting capacity.

Why is there no Calcium in TriCare Prenatal™ DHA ONE®?

Simply put, Calcium blocks the absorption of iron and most prenatal vitamins only contain 10% of the daily Calcium needs during pregnancy. The recommended daily intake of calcium for pregnant and lactating women 24 or older is 1200 mg per day. For women under 24, the amount is 1500 mg per day.

As is typical during pregnancy and lactation, the baby gets priority over the mother. If a mother is not getting enough dietary calcium, her body will pull calcium from her bones to meet the needs of her baby. This can set the stage for problems with bone health, particularly osteoporosis.

There are good food sources of calcium which women should focus on including in their diets while pregnant or lactating. The very best sources are dairy products, including milk, chesses, yogurt, puddings, and creamy soups. Non-dairy sources include green vegetables (broccoli, spinach, greens, and others), seafood, and dried peas and beans. The following tables published by the USDA outline food sources of calcium and its amounts in standard serving sizes.

Dairy Food Sources of Calcium

Food Sources of Calcium ranked by milligrams of calcium per standard amount; also calories in the standard amount.

Food, Standard Amount	Calcium (mg)	Calories
Plain yogurt, non-fat (13 g protein/8 oz), 8-oz container	452	127
Romano cheese, 1.5 oz	452	165
Pasteurized process Swiss cheese, 2 oz	438	190
Plain yogurt, low-fat (12 g protein/8 oz), 8-oz container	415	143
Fruit yogurt, low-fat (10 g protein/8 oz), 8-oz container	345	232
Swiss cheese, 1.5 oz	336	162
Ricotta cheese, part skim, ½ cup	335	170
Pasteurized process American cheese food, 2 oz	323	188

Provolone cheese, 1.5 oz	321	150
Mozzarella cheese, part-skim, 1.5 oz	311	129
Cheddar cheese, 1.5 oz	307	171
Fat-free (skim) milk, 1 cup	306	83
Muenster cheese, 1.5 oz	305	156
1% low-fat milk, 1 cup	290	102
Low-fat chocolate milk (1%), 1 cup	288	158
2% reduced fat milk, 1 cup	285	122
Reduced fat chocolate milk (2%), 1 cup	285	180
Buttermilk, low-fat, 1 cup	284	98
Chocolate milk, 1 cup	280	208
Whole milk, 1 cup	276	146
Yogurt, plain, whole milk (8 g protein/8 oz), 8-oz container	275	138
Ricotta cheese, whole milk, ½ cup	255	214
Blue cheese, 1.5 oz	225	150
Mozzarella cheese, whole milk, 1.5 oz	215	128

Non-Dairy Food Sources of Calcium

Non-Dairy Food Sources of Calcium ranked by milligrams of calcium per standard amount; also calories in the standard amount. The bioavailability may vary.

Food, Standard Amount	**Calcium (mg)**	**Calories**
Fortified ready-to-eat cereals (various), 1 oz	236-1043	88-106
Soy beverage, calcium fortified, 1 cup	368	98
Sardines, Atlantic, in oil, drained, 3 oz	325	177
Tofu, firm, prepared with nigari[b] , ½ cup	253	88
Pink salmon, canned, with bone, 3 oz	181	118
Collards, cooked from frozen, ½ cup	178	31
Molasses, blackstrap, 1 Tbsp	172	47
Spinach, cooked from frozen, ½ cup	146	30
Soybeans, green, cooked, ½ cup	130	127
Turnip greens, cooked from frozen, ½ cup	124	24
Ocean perch, Atlantic, cooked, 3 oz	116	103

Oatmeal, plain and flavored, instant, fortified, 1 packet prepared	99-110	97-157
Cowpeas, cooked, ½ cup	106	80
White beans, canned, ½ cup	96	153
Kale, cooked from frozen, ½ cup	90	20
Okra, cooked from frozen, ½ cup	88	26
Soybeans, mature, cooked, ½ cup	88	149
Blue crab, canned, 3 oz	86	84
Beet greens, cooked from fresh, ½ cup	82	19
Pak-choi, Chinese cabbage, cooked from fresh, ½ cup	79	10
Clams, canned, 3 oz	78	126
Dandelion greens, cooked from fresh, ½ cup	74	17
Rainbow trout, farmed, cooked, 3 oz	73	144

Note that the chart for non-dairy food sources of calcium states that bioavailability (ability to absorb and utilize in the body) may vary. One of the most significant factors that can reduce the bioavailability of calcium is the presence of iron. When both minerals are present, calcium binds to iron, creating a complex that is poorly absorbed and tends to constipate. The amounts of both iron and calcium absorbed are reduced in this situation, to the detriment of baby and mother.

With this background in mind, you should be able to see why we have chosen to exclude calcium from the formula of TriCare Prenatal™ DHA ONE®. Prenatal vitamin/mineral formulas that include calcium typically have 125mg to 175mg of calcium. Any more would lead to excessive size of the prenatal vitamin. This is approximately 10% of the daily needs during pregnancy and lactation. Why seriously reduce the availability of iron, another key nutrient during pregnancy and lactation, when additional dietary sources of calcium will be needed anyway? We could see no legitimate reason to do this, and therefore we have no calcium in TriCare Prenatal™ DHA ONE®.