

My Post-Workout Shake

Add all ingredients to a blender, plus any of the flavoring combinations, and blend until desired consistency. Pour into a glass and enjoy!

Base Ingredients

- 1 1/2 cup Milkadamia® (or whichever milk you prefer)
- 1/2 cup ice
- Half an avocado
- 1 scoop (20 grams) whey protein powder
- 1 scoop (5 grams) creatine
- 1 scoop (10 grams) collagen
- 1 scoop (2.5 grams) NTFactor® lipids powder
- 1 scoop (5 grams) colostrum
- 1 sachet (500 mg) Mitopure® Urolithin A
- 1/2 scoop (3 grams) Orthomolecular Reacted Magnesium Powder
- 1 tbsp (15 grams) flax oil

A note about timing

The timing of that post-exercise recovery drink can be a contentious issue. Is there a crucial "anabolic window" wherein hungry muscles imbibe amino acids for repair, recovery, and optimal hypertrophy? Some contend it's that golden interval 30-60 minutes after resistance training:

"Dietary protein should be ingested during and/or immediately after cessation of exercise to allow muscle protein synthesis rates to reach maximal levels."

Others argue that it doesn't matter so much, as long as it's within a few hours:

"These findings refute the contention of a narrow post-exercise anabolic window to maximize the muscular response and instead lends support to the theory that the interval for protein intake may be as wide as several hours or perhaps more after a training bout depending on when the pre-workout meal was consumed."

Because I mostly exercise fasted in the morning, I usually have my shake within an hour after my workout simply because I'm hungry. But eating a regular high protein post-exercise meal is likely to impart equivalent benefits.

Flavor Options

Matcha

1 tsp = 5 grams.

This powder imparts the flavor of green tea ice cream, while boosting health. Green tea is a source of L-theanine, which has mood and cognitive effects, as well as EGCG, a premier antioxidant. It delivers a host of benefits for liver, brain, and circulatory system, as well as cancer protection.

Cocoa

1 scoop = 13 grams.

I use the FlavaNaturals® FlavaMix® Cocoa Powder that is standardized to deliver 900mg of cocoa flavanol per scoop, the amount found in studies to boost cognitive performance. There are also blood pressure and insulin resistance benefits of cocoa.

Mixed Berry

1/2 cup.

Unsweetened frozen berries are also ideal in the shake. Blueberries, raspberries, strawberries, or blackberries add flavor and beneficial polyphenols.

Yes, we have no bananas! Admittedly yummy in shakes, bananas add superfluous carbohydrate calories without extraordinary micronutrient dividends. Besides, there's the newly recognized phenomenon of *polyphenol steal*: Bananas pack high levels of the enzyme polyphenol reductase which impairs the bioavailability of polyphenols (like those from berries, cocoa, green tea, and urolithin A) by up to 87%.

