

Article #1

The Chocolate Milk Debate

Chocolate milk, that sweet childhood pleasure, has become the center of an intense health debate. Some health experts believe it contributes to [childhood obesity](#) leading many school districts to place limits on its sale or ban it outright. But many doctors and nutritionists say leaving it off the menu deprives children of valuable nutrients they aren't likely to make up elsewhere. Parents are left wondering whether it's okay for their kids to drink it or not.

[Milk](#) consumption has plummeted from 25 to 20 gallons per year per person since 1990, even as the [U.S. Food and Drug Administration](#) reports that most kids don't get enough calcium and several other "shortfall" nutrients milk offers in abundance. Increasingly, children tend to drink the majority of their milk at school and increasingly, the majority of the milk they drink is flavored -- more than 70 percent of it according to the Milk Processor Education Program, the dairy industry's advocacy group.

There lies the dilemma: Provide kids with essential nutrients lacking in their diet, or limit their access to sugary, high-calorie foods?

"Flavored milk is far less sugary and tends to have fewer calories and more nutrition than beverages like soda," said Keith Ayoob, associate clinical professor in the Department of Pediatrics at the Albert Einstein School of Medicine in New York City. "Children who drink flavored milk are no more likely to be overweight and are more likely to get enough calcium and eat a better diet than kids who don't."

There is support to this claim. A survey of 58 elementary and secondary schools across the country that removed the chocolate version of moo juice from cafeterias for two years and offered only the white version found a 32-64 percent drop in the amount kids drank depending on the grade, in part because they stopped fully draining the carton.

"That isn't even the whole story either. Kids will simply hold their thirst until after school and head to the nearest corner store to order something that is a far worse choice. Better to give them the chocolate milk." Ayob said.

Chocolate Milk: Healthy Compromise, or Just Too Sweet?

But not everyone agrees.

"This is like asking your kids to eat more apples by giving them apple pie," said Ann Cooper, a leading advocate for healthy [school lunches](#). "Chocolate milk is just sugary soda in drag."

While complete school bans are on the increase, some have yielded to pressure from students, parents and special interest groups and settled on a compromise of sorts. They've ordered reformulated the beverages that are lower in fat and calories and that replace high fructose corn syrup with sugars made from sucrose or beets.

Compared to typical half pint of chocolate milk which has 170 calories, 28 grams of sugar and one percent fat, the new kind has just 130 calories, 22 grams of sugar and almost no fat. A 20-ounce bottle of cola has 150 calories and 40 grams of sugar.

Article # 2

Chocolate Milk Nutrition Information

Last Updated: Feb 03, 2014 | By Sylvie Tremblay, MSc



Two glasses of chocolate milk with cinnamon sticks Photo Credit matka_Wariatka/iStock/Getty Images

While you might not think of chocolate milk as your healthiest beverage option, it has a place in a balanced diet. Drinking chocolate milk after your workouts might offer benefits, as Dr. John Ivy, Ph.D., explains in an interview with the University of Texas, that drinking chocolate milk as a post-workout snack helps you hold onto muscle and burn fat. Chocolate milk also offers other health benefits, thanks to its nutrient content, but drink it in moderation, because it contains added sugar.

The Nutrition Basics

Each cup of chocolate milk boosts your energy intake by 190 calories, and provides roughly 10 percent of your daily caloric intake in a 2,000-

calorie diet. Most of chocolate milk's calories come from its 4.8 grams of fat and 30 grams of carbohydrates, which provide energy to help you get through the day. Chocolate milk also offers 7.5 grams of protein per serving. This protein helps your body maintain and repair muscle tissue, and it also supports hormone and enzyme production. Getting enough protein in your diet also nourishes other tissues, including your eyes and skin.

Bone-Building Minerals

The minerals found in chocolate milk nourish your skeleton. Each serving of chocolate milk provides 272 milligrams of calcium, or 27 percent of the recommended daily intake. Calcium becomes incorporated into the mineral tissue that makes up your bones, and a calcium-rich diet fights bone-related diseases, such as osteoporosis. The copper found in chocolate milk helps you make collagen, a protein found in abundance in bone tissue. Drinking a cup of chocolate milk boosts your copper intake by 188 micrograms, or 21 percent of the recommended daily intake.

Beneficial Vitamins

Drink chocolate milk and you'll also consume more vitamin D and riboflavin, which is also called vitamin B-2. Vitamin D supports skeletal health, because it helps your body absorb and use calcium. It also benefits your cardiovascular health by controlling your blood pressure, helping to keep it in a healthy range. A serving of chocolate milk offers 122 international units of vitamin D, or 20 percent of the recommended daily intake. The riboflavin found in chocolate milk helps you metabolize nutrients and produce energy, and it also helps your liver detoxify your body. A serving of chocolate milk boasts 0.46 milligram of riboflavin, which is 42 percent and 35 percent of the recommended daily intake for women and men, respectively.

Nutritional Concerns

Drink chocolate milk in moderation to maintain your health; each serving contains 4 teaspoons of added sugar, which is two-thirds of the recommended daily added sugar limit for women and 44 percent for men, according to guidelines published by the Harvard School of Public Health. If you drink several servings of chocolate milk daily, you'll easily exceed your added sugar allotment, even discounting the added sugar in other foods in your diet. Drinks sweetened with sugar contribute to obesity, and can also be bad for your health, increasing your risk of diabetes.

Article #3

Study Shows Carbohydrates and Protein in Chocolate Milk Help Muscles Recover From Exercise

June 4, 2010 -- Fat-free [chocolate](#) milk beat out carbohydrate sports drinks at helping to rebuild and refuel muscles after [exercise](#), researchers report.

The combination of carbohydrates and protein in low-fat [chocolate](#) milk appears to be "just right" for refueling weary muscles, says William Lunn, PhD, an [exercise](#) scientist at the University of Connecticut.

"It's not just a dessert item, but it's very healthy, especially for endurance athletes," Lunn tells WebMD.

The research involved eight male runners in good physical shape who ate a [balanced diet](#) for two weeks. At the end of each week, they took a fast paced, 45-minute run.

Following each run, the men drank either 16 ounces of fat-free [chocolate](#) milk or 16 ounces of a carbohydrate-only sports beverage with the same number of calories.

Post-exercise muscle [biopsies](#) showed increased skeletal muscle protein synthesis -- a sign that muscles were better able to rebuild -- after the milk drink, compared with the carb-only beverage.

Additionally, drinking fat-free [chocolate](#) milk led to a higher concentration of glycogen, or muscle fuel, in muscles 30 and 60 minutes after exercise, compared with the sports drink. Replenishing glycogen after exercise helps future performance, Lunn says.

The findings were presented at the American College of Sports Medicine conference in Baltimore this week.

While only men were studied, one would expect women to gain the same post-workout benefits from chocolate milk, he says.

While the studies were small, there's no reason not to reach for fat-free chocolate milk after your next workout, says sports nutritionist Nancy Clark, MS, RD, of Healthworks Fitness Center in Chestnut Hill, Mass.

"Athletes can consider it an inexpensive nutritional alternative to engineered sports beverages for help with post-workout recovery," she tells WebMD.

The studies were supported by a grant from the National Dairy Council and National Fluid Milk Processor Promotion Board.

This study was presented at a medical conference. The findings should be considered preliminary as they have not yet undergone the "peer review" process, in which outside experts scrutinize the data prior to publication in a medical journal.

Article #4

7 Pros and Cons of Chocolate Milk

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Chocolate milk is a favorite drink for kids and for parents. But it is also a contentious drink. There are many parents, nutritionists and educationists who are strictly against the widespread consumption of chocolate milk, especially among kids. And there are millions of parents and kids around the world who would not even considering shunning the delicious drink. There are some nutritionists who don't accept the rampant criticism of chocolate milk but that number is not very encouraging.

Surely, there are some pros and cons of chocolate milk and if you are wondering what standpoint you should take, as a proponent or critic, then you have to delve into the details in an objective manner. Any general or sweeping comparison leading to an inference will be ill-informed and unfair. Let us first consider the basics and then we shall go into subjective discussions.

The Pros of Chocolate Milk

1. Chocolate milk is nutritious.

It is rich in calcium, protein, potassium and vitamin D. There is also sugar but that's an undesirable ingredient which we shall talk about later. The nutrients that milk possesses are all there in chocolate milk. So in a way, when a kid drinks chocolate milk, one is effectively drinking milk and getting all its desirable nutrients.

2. Amazing taste.

Kids and even adults love the taste. The taste comes into significance when we talk about kids because they don't normally like the taste of plain milk. In such a situation, kids can be provided with the goodness of milk by the virtue of chocolate milk. Millions of parents agree that it is very difficult for them to get their kids to drink milk every day. It is almost impossible to have kids drink milk

twice or thrice a day. Chocolate milk comes to the rescue, just as other flavors. In effect, kids who wouldn't have drunk milk otherwise are not just drinking it but are loving it as well. There are studies that have proven an increase in consumption of milk when it is chocolate milk served in schools.

3. Great recovery drink.

Athletes and sportspersons can have a glass of chocolate milk and expected to recover sooner. There are studies that have shown a positive impact of chocolate milk on muscle recovery. Muscles get exhausted of their glycogen reserves in the tissues and this can be replenished by chocolate milk. Professional athletes have been seen to carry chocolate milk with them to consume it after exercise or a gaming session or some training.

4. Energy booster.

Literally, it is an instant supplier of energy. Physically tired or exhausted kids and even adults can drink chocolate milk and feel refreshed immediately. The impact is immediate which is also very desirable and other than the taste being amazing, one can actually spring up and get into action despite having been lethargic just a while back.

The Cons of Chocolate Milk

1. Lots of sugar.

The biggest critic of chocolate milk pertains to sugar. Chocolate milk contains loads of sugar and that is not healthy at all. It is certainly not good for diabetics or those at risk of diabetes. It is also not good for kids. When kids start to take up diets that are rich in sugar, they aren't just going to be at risk of diabetes later in life but there can be more than a dozen odd ailments plaguing their health as they grow up.

From affecting metabolism to facilitating obesity, from increasing the dependence on sugar to causing hormonal problems, chocolate milk or any flavored milk that contains a ton of sugar is not healthy at all. Now, here comes the tricky part. There is all the goodness of milk and the deliciousness of chocolaty taste. How do you balance or compare the pros and cons of nutrients and sugar respectively?

Does the goodness of milk outweigh the badness of sugar or is it just a quick drink that is avoidable and should be avoided?

2. Not the most nutritious.

The answer may lie in the second major problem with chocolate milk. It is such a sweet and tasty drink that kids and even adults can get almost addicted. This leads to overconsumption or overdrinking. When kids start to consume several glasses of chocolate milk in a day, it is a huge concern. The same goes for adults. Going back to that nutrient versus sugar debate and how one can outweigh the other, the answer lies in how much a kid or adult is consuming in a day. Also, lifestyle choices and how much calorie one burns through the day will determine if the amount of chocolate milk consumed is healthy or one has to cut down.

For instance, a child who's aspiring to be an athlete or plays some sport regularly would be burning hundreds of calories more than a kid playing video games. The active kid can easily metabolize the sugar present in a glass or even two glasses of chocolate milk. The inactive or sedentary kid is not really a suitable candidate for even one glass of chocolate milk. Eventually, it all boils down to how much one eats, how much one burns and if the latter outdoes the former.

3. Mislabeling.

There is one really disturbing aspect of chocolate milk that the manufacturers will not want the public to talk about. Parents are informed enough to give importance to labels. Most families in the country are conscious of regulations and how to study the labels to pick the best foods for their kids or even for themselves. Major brands of chocolate milk don't indulge in wrong labeling but there are formulas or additives, flavors and preservatives that are used. Often, such materials or ingredients are defined as of a certain category or class, not exactly spelling out what's in it. So if you are buying chocolate milk of some brand and the label just mentions certain recipe or some formula of an ingredient, you don't really know what it is. This can be something undesirable or unhealthy for all you know.

The Variants

Chocolate milk manufactured by different brands is not made in the same way. The source of milk, cocoa, how the milk and the cocoa are processed, the

quantum of sugar and even the source of that sugar; all these factors are variants. Companies obviously don't have the same source. So when you buy chocolate milk off the shelves, you don't really know the long history of it in the making. To say that chocolate milk is a healthy drink for kids or even a nutritious and necessary drink for kids would be thus unfair and outright wrong. Anything processed is not exactly ideal for kids.

Now, there is low fat milk and many variants of milk. Some parents opt for low fat milk while some parents don't mind the fat in milk as that is natural. A comparison has to be drawn between what is healthy fat and unhealthy fat. The human body does need some fat as without it there would be no treasure-trove of energy. Excess fat is unhealthy.

In an attempt to make low fat milk or milk with certain added vitamins and minerals, as you may be aware of from commercials and advertisements, many companies opt for ways that are questionable or at least debatable. It is similar to that argument of normal soda and diet soda. Diet sodas actually increase the body's dependence on sugar.

The Ideal Approach?

Chocolate milk doesn't have to be banned as some may want. It doesn't need to be made an obviously common or imperative drink, as it has happened over the years. Moderate consumption of chocolate milk is the best approach.

A child can have one serving of chocolate milk a day, but no more. However, it must be noted that other foods or meals of the child should not have much sugar. A tenth of our calorie intake can be accounted by sugar. That is the maximum. It can be a tad stretched if one is hyperactive or into sports, athletics or just runs around a lot. Two or three servings of chocolate milk a day is a recipe for disaster.

Now, parents can make chocolate milk at home if one wants to be sure of using the best milk and the best chocolate. There are some brands that don't add tons of sugar to their chocolate syrups and these have a strong flavor and taste but not sweetness. Parents can use such products and then add sugar for taste as they

want. This way, a guardian would know how much sugar the child is consuming in the glass of chocolate milk.

Whether chocolate milk is healthy or unhealthy wouldn't just depend on the nutrients and ingredients inside it but also how someone uses the energy. It is similar to the calorie debate. A person who burns three thousand calories in eight hours of work doesn't get exposed to any risk if he or she gorges on a pizza or some burger. A person who sits through the eight hours at work should stick to fruits and veggies.

Similarly, kids who are very active can easily metabolize even three servings of chocolate milk and be at no health risk. Kids who don't play or are very inactive should not be given chocolate milk every day. Once in a while is good enough. Else, obesity will be almost impossible to avoid. It is futile to even think that other meals through the day will not contain sugar and that the kid will not consume other drinks, which would also be loaded with sugar.

Article #5

Is Chocolate Milk a Healthy Choice?

The good definitely outweighs the bad when it comes to this favorite childhood beverage. It's so good that if you abandoned chocolate milk as a teenager, you might want to consider adding it back to your diet. While the old adage "too much of anything is a bad thing" holds true for chocolate milk, mostly because of the chocolate syrup, enjoying it every once in a while will allow your body to reap its health benefits.

Disease Prevention

Chocolate milk contains nine essential nutrients and vitamins; most noticeable are calcium and vitamin D. Calcium is a mineral that helps strengthen bones and prevents bone ailments, such as arthritis, osteoporosis and tooth decay. Vitamin D helps the absorption of calcium, strengthening the bones, but also helps in preventing cancer, diabetes and hypertension. According to "U.S. News and World Report," a study published in the "Epidemiology and Infection" journal concluded that vitamin D wards off the flu by strengthening your immune system. One cup of 2 percent fat chocolate milk contains 45 percent of the recommended daily allowance for vitamin D and 30 percent of calcium's RDA; more if you use chocolate syrup fortified with calcium.

Benefits for Skin

Another benefit of chocolate milk is the effect it has on your skin. Vitamins A and B-6, potassium and the proteins in milk help strengthen skin while maintaining its smoothness. A cup of chocolate milk provides 9 g of protein and 10 percent of the RDA

for vitamin A. Vitamin A is important for skin health as it helps the skin retain water, deterring wrinkles, and increases production of new skin cells, which replace old damaged cells. In addition to the skin, these benefits apply to hair health as well.

Post-Workout Drink

One aspect of chocolate milk that differentiates it from other beverages is its superior benefits as a post workout beverage. In 2006, CBS News reported on an article in “International Journal of Sport Nutrition and Exercise Metabolism” that concluded chocolate milk performed as well if not better than other sports drinks in helping the body recover after a workout. The combination of the 8 g of protein from the milk and carbohydrates from the chocolate syrup allow the body to rebuild muscle tissue and refuel energy supplies more efficiently.

Reaping the Benefits

As healthy as chocolate milk is, you should always be cautious not to overdo it. One of the reasons chocolate milk tastes so good is because it can contain up to 30 g of sugar in 1 cup, and too much sugar can lead to weight gain and diabetes. Also, 1 cup of whole-fat milk has about 8 g of saturated fat, which you should always be wary of. To minimize risk, enjoy chocolate milk in moderation, choose low-fat or nonfat milk, and use chocolate syrup made with natural sugar rather than artificial sweeteners.