

## PP 005 Milk - Movies

We're back! Thanks for many thousands of downloads – well, in the thousands!

We are now broadcasting from our new swanky digs high above the Cesar Rodney Square in downtown Wilmington DE. We can see statue of Cesar Rodney riding his horse and the Old Wilmington Post Office from the window.

Constipation is coming for the following two episodes, but we had some multiple stories that had to do with milk, and since milk and cheese are the #1 constipating foods in our experience, and we thought we would just make that the theme of this episode.

Buckle up as we, the podcast pediatricians, Rob Walter and Matt Gotthold– take on all things milk and do our long-awaited Oscar movie review – well, nobody was really waiting for it except us.

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**We also invite you to weigh in on our opening music – Rob loves the on-call beeper sound effect – Matt hates it – we decided you, our new listeners, will decide (pretending that you care enough to let us know) on [podcastpediatricians.com](http://podcastpediatricians.com)**

AND for the record, Rob does not watch Gilmore Girls (but liked the first two episodes) Plus, Rob finally made it into Matt's poker game as an alternate.

**04:25** Since dairy is so tied to constipation, we thought we would touch on some new and weird milk stories this year - YES, we will eventually cover pediatric nutrition, plus Matt is obsessed with that microbiome. BUT FIRST MILK

Obviously, cow's milk is a great source of calcium and calcium is lacking in many pediatric diets. It is recommended that 1-3-year-old get about 700 mg of calcium per day and 4 - 8-year-old's 1000. 9-18-year-old should get about 1300 mg of calcium a day.

An 8 ounce glass of milk has about 300 mg of calcium - 6 ounces of yogurt has over 250. And cheese like cheddar and mozzarella have 2-300 mg per ounce. Soy-based foods are also good sources. Legumes and nuts and seeds and certain fish are also good sources of calcium as are many vegetables and fruits, especially figs . Oh yes, and sweet potatoes

The American Academy pediatrics has always featured dairy products prominently in their guidelines for children nutrition. That includes even children who have lactose intolerance . They also very much favor lower fat milk when there is any evidence of increased weight.

Neither one of us are big milk drinkers.

We both do not promote liquid candy – aka soda. Rob thinks a little 100% fruit juice a day is OK for kids – Matt, not so much.

Four milk related stories to cover

#1. BIG MILK - the milk lobby people, are fighting the plant-based lobbyists about if you can really say any products of cashews, almonds, soy, rice, coconut, quinoa should be called MILK at all!!

#2. Just how nutritious are these plant based milks or, if you will, milk substitute beverages?

#3. What about the new A2 milk from down under that comes from ugly cows and is touted as healthier than our usual A1 milk we've been drinking for centuries.

Lastly #4 Does low-fat milk make you gain weight more than whole fat milk, especially in children?

**11: 25** What IS real milk and real cheese?

The FDA defines milk as a lacteal secretion obtained by milking one or more healthy cows

That's why Velveeta cannot call itself cheese

Big Milk is having some troubles. Americans drink 37% less milk today than they did in 1970s, as milk sales have tumbled a bit, HOWEVER, yogurt and cheese sales have gone up. R U a yogurt fan?

Matt loves his Greek yogurt, Rob is more of a rice pudding guy. There is a store in New York that ONLY sells rice pudding that is to die for.

The plant-based milk products sold in the dairy aisle have the same shape cartons as the milk – they are a small but growing market – about 10% of milk sales. places like Starbucks are starting to offer these plant-based milk's because of great demand.

SO, big milk wants the FDA to crack down on all these plant-based beverages labeled as milk. The plant-based people say that consumers obviously know their milk is not from a cow and there's no pictures of a cow on their box and it's fair to have alternatives to milk. Plant lobbyists also bring up milk of magnesia, cocoa butter, cream of wheat and peanut butter as names that also used Dairy terms

Rob agrees with Big Milk on this one. Soy and almond etc. should say milk substitute or beverage – milk comes from animal lactation. Matt does not feel strongly about it.

**18:20** JUST How nutritious are these plant based milk substitutes?

A recent study from last year's Pediatric Gastroenterology and Nutrition confirmed that plant-based beverages vary very widely in their nutritional profiles and the authors recommended that young children drink cow's milk unless there is medical reason they cannot.

Now an 8-ounce glass of cow's milk naturally contains about 8 grams of protein, and about a third of the recommended daily requirements of calcium it also naturally contains potassium and B12 and it's fortified with vitamins A&D

Of the four most common plant-based milk products studied -- soy **and cashew and almond and coconut**, only soy has significant protein. The other three have no more than a gram of protein

YES, soy milk does have about as much protein as cow's milk but it has little calcium - many are artificially fortified with calcium. The question is how bioavailable is that added calcium compared to the natural calcium in real milk? Experts disagree.

Soy products also have plant based estrogens that can mimic estrogen very weakly. Some parents are concerned about this estrogen effect in boys and girls, even shunning soy formula - we do not think it is an issue.

Of the four plant-based milk like beverages studied, coconut milk was the LEAST nutritious one with little to no protein and only small amounts of added calcium. Whole nuts like almonds and cashews are loaded with protein and rich in calcium but these nutrients are all most completely lost when they're processed into beverages which contain a lot of water.

Fat content, sugar, and other sweeteners and calorie counts can vary WIDELY from product to product in the plant based milk beverages and can be quite high in flavored plant-based beverages - like what would be in chocolate milk

**24:30** Now A2 vs A1 milk issue - As outlined in an excellent article in the Atlantic in Jan 2017

It turns out that the milk that we all drink, mostly from the beautiful black-and-white Holstein cows actually differ by one amino acid in position 67 from a second type of milk that's more common in Asia and Africa. Our milk is called A1 and the second type of milk is A2

THE A2 type of milk is likely the original milk - our mostly Holstein A1 milk cows split off from them probably about 8000 years ago. The newer A1 milk has become the dominant milk in Europe and North America and some people think it's because A1 cows produce more milk per cow than A2 cows and that these cows are prettier than the ugly A2 cows

THE scientists in New Zealand who discovered the A1 A2 milk difference have done studies showing that the A2 milk is more nutritious and gives less G.I. upset than the A1 milk that we drink AND that our A1 milk has more inflammatory compounds which may be linked to heart disease, asthma and eczema.

This made me think of the late great Frank Oski who wrote a book about how unhealthy he thought milk is for kids called **don't drink your milk** - maybe he was on to something.

The BIG problem with all this is that these original scientists Down Under teamed up with a billionaire to form the A2 milk company or A2MC and they funded most of the studies showing the advantages of A2 milk – a huge conflict of interest.

A2MC also seems to control the market for these cows and even on the skin tests to determine what kind of milk your cow makes. – sounds a bit like Big Pharma

A2 milk hit the United States in, where else, California in 2015 and the BIG MILK lobby isn't very happy about this.

WE GUARANTEE we will all be hearing more about it.

**27:20** Does skim milk make you gain weight.?

multiple studies in Europe show that drinking high fat dairy was associated with a lower obesity risk. THE OPPOSITE of what we tell obese patients and what we would think was logical!!

WHY? It may be the Satiety factor - Higher fat dairy makes us fuller faster so we eat less OR complex bioactive substances in milk fat help us use and burn off the fat for energy and not for fat storage. By stripping the fatty acids from whole milk we may be triggering more eating and fat storage.

Matt says whole milk is 4% and Rob says 3% - they politely disagree then later google the correct answer

In 2013 a University Virginia study showed Preschoolers who were given low-fat milk, as recommended by the American Academy of Pediatrics, are more likely to be overweight or obese than children given 2 percent or whole milk

The UVA researchers evaluated data from 10,700 American children between ages 2 to 4 followed in the Early Childhood Longitudinal Study. It shows that consumption of 1 percent and skim milk was also most common among preschoolers who are overweight or obese – possibly reflecting parents’ concern about their children’s weight.

In the study low-fat milk did not slow the weight gain – Actually children given skim or 1 percent milk were more likely to become overweight or obese than their peers who drank whole milk.

Both the American Academy of Pediatrics and the American Heart Association have advocated giving low-fat or skim milk to children ages 2 and up. Maybe we should rethink that – or at least put our efforts into more exercise and fresh fruits and veggies!!

Sales of whole milk have actually increased in last few years while low fat has decreased, although low-fat milk still dominates the market.

So what do you tell patients about fat content in milk? Matt

You know A mom ten years ago told me low fat increases weight gain – I was dismissive – I do not remember who she was but if you are out there – maybe you were right!!! I apologize

2% milk might be the sweet spot.

Remember no goats milk (causes megaloblastic anemia due to lack of folate) at any age NOR regular milk before a year of age since it can lead to GI blood loss and iron deficiency anemia – both always on the pediatric boards!!

### **33:40** Pearls

Matt’s home recipe for nasal saline and he salutes the comedian Lewis First of Vermont.

Rob likes to torture ill patients about video watching, texting and piercing/tattoos.

Matt has a belly button ring Faux Pas

### **40:00** Movies and The Oscars!!

The 25<sup>th</sup> anniversary for Wayne’s World BUT also for Groundhog Day with Bill Murray.

The new Groundhog Day the Musical on Broadway is AWESOME – especially the alternative medicine number.

Matt saw a musical locally - Pippin! Rob is proud of him.

We discuss all the big Oscar Noms

ARRIVAL, FENCES, HACKSAW RIDGE, HELL OR HIGH WATER, HIDDEN FIGURES, LION, MANCHESTER BY THE SEA, LA LA LAND, and MOONLIGHT

A few other 2016 Favs **Sing Street, Jungle Book, Captain America Civil War, Star Wars Rogue One, Deadpool, Everybody Wants Some, Love AND Friendship**

THE OSCARS

Matt did not watch

Jimmy Kimmel was good. He sounds exactly like his idol David Letterman.

The big gaffe at the end – Rob apologizes to Warren Beatty.

Lastly, Rob's best movie experience of 2016 - the documentary **I am NOT your Negro**

Matt considers seeing Beauty and the Beast.

Stay tuned for TWO, yes TWO back to back poop episodes coming soon!

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By