

YUMI

Adventurous eaters start here

A practical guide to your baby's first bites.

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Hello

You're ready to introduce your babe to the wonderful world of solids!

It's a pretty exciting milestone. Their tiny taste buds are about to embark on a journey that will last their entire life. It's too bad there's no manual for this. Oh wait, there is - this one. We got you. We reached out to our community of nerds, including pediatricians and dietitians, and distilled their best advice right here.

We started Yumi, a childhood nutrition service, because of this window. A child's first 1,000 days, is widely recognized as the most important period in a human's life for nutrition and development. But it doesn't have to be scary. You have a lot more control than you realize. Let's raise a healthier generation together!

Angela & Evelyn
Founders of Yumi





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The 1000.

The one number you should know.

First things first, we need to do some myth busting.

You may have heard the expression: food under one is just for fun. Not true.

A child's first thousand days, from the moment of conception of age 2, is actually the **MOST** critical window for nutrition and development. As adults, we tend to think that we're the ones who need to watch our diets. We believe kids have their whole lives to worry about what they eat. Well, it turns out the exact opposite is true, particularly during the first 1,000 days.¹

So, what happens in the first 1,000 days?

In a word, everything. Nutrition fuels growth. Remember those giant horsepills you or your partner took during pregnancy? You took them because you and your baby need extra nutrition during this key window. Folate, for example, is critical during pregnancy to prevent neural tube defects.

Your child's needs don't disappear upon birth, but continue through their 2nd birthday.

Certain nutrients play an outsized role during this window. And some, are more important based on your child's stage of development. For instance, your child is born with a certain amount of iron at birth - that iron supply naturally depletes by 6 months, a time when many babies are transitioning to solids.

Given iron's key role in brain development, it's important to focus on foods high in iron during this time.

The science behind the 1,000 days is so compelling, it is widely recognized by the medical community and the World Health Organization. There are thousands of papers related to the topic. We even quit respectable jobs to create a service centered on the 1,000 days - that would be Yumi.

Takeaway

Food under one is not just for fun, the first 1,000 days of a human's life are actually the **MOST** important for nutrition and development.

Nutrient Highlights for the 1,000

Iron is an essential mineral that is found in every red blood cell. It helps carry oxygen to the brain, making it vital for the brain.

Calcium is a key mineral for the formation of strong bones and teeth. In infants, calcium is especially vital for building bone density.

Folate helps support infant's rapidly growing cells and tissues as well as overall blood health and brain health.

Protein is converted to amino acids, and then becomes all kinds of tissue, such as bones and muscles.

Fatty Acids Alpha-linolenic acid, an essential omega-3 fatty acid, plays a critical role in cell membrane formation and brain health.

Zinc This mineral is relied upon by many processes in the body, including ones that impact growth, metabolism and immunity.

Vitamin D is best known for building strong, healthy bones, and promoting good sleep.

Vitamin A Supports vision. helps break down free radicals, promotes cell production, and helps keep skin cells firm and healthy.

Ready, Set, Nom

Is your child ready?

Many children start solids around the 6 month mark. Some start as early as 5 months, but those that do are still getting the majority of their nutrition from breastmilk or formula at that age.

Please don't feel pressured to rush. From 0 to 4 months, a baby's digestive track is not developed enough to handle complex foods. Meanwhile, some studies suggest a link between introducing solids before 3 months and an increased risk for metabolic disorders.² During these earlier months, babies exhibit a natural extrusion reflex, whereby their tongue naturally pushes out any solids. In other words, there's no need to rush!

If anything, take cues from your child.

They may not be speaking, but they'll begin to telegraph when they are getting ready for solids.



Ready or Not?

6 common signs that bebe is ready:

Head Control

Your baby exhibits good head control and can hold their neck steady on their own.

Keeps Foods In

They keep food in their mouths rather than push it out with their tongue, also known as the extrusion reflex.

High Chair-Ready

Can sit in a high chair, feeding seat, or other infant type seat.

Able to Swallow

They can move the food from the front of their mouths to the back and swallow it, instead of letting it dribble out of their mouth.

Spoon-Ready

When a spoon is being pulled out of their mouth, they can draw their bottom lip in.

Weight Gain

As a general rule your baby at this point has roughly doubled their birth weight, and likely weigh 13 lb or more, according to the American Academy of Pediatrics.



Getting Started

The fundamentals.

In the beginning, your child will likely still be getting most of their nutrition from breast milk or formula.

So don't be too upset if your first attempts at feeding end up on the floor. Embrace the mess.

During this initial period, your infant is exploring the world of taste and textures. It will be a slow, experimental process. Start with just a few bites and allow your child to experiment with how it feels in their mouth. Don't force them to finish anything especially if they are turning away.

Many pediatricians will recommend focusing on veggies as first foods, since humans are already predisposed to loving sweets.

How much food?

In the first week try offering solid food to your baby once or twice a day. Start small, such as 1-2 teaspoons in total. Don't be surprised if your baby doesn't even finish that. This is totally okay. Remember, your baby is still getting the bulk of their nutrition from breast milk or formula during this transition.

According to the AAP, **infants aged 6 months to 12 months need about 50 calories per pound**, for a total of about 850 calories a day. It is recommended that by the time your baby is eight months of age they are consuming approximately 1/2 cup of vegetables and 1/2 cup of fruit per day.³

Myth Busting - Rice Cereal?

You may hear that a baby's first food has to be a form of rice cereal. There is no evidence to support this. Refined white rice cereal is highly processed and quickly converts into glucose, making it a less healthy option than many other nutrient-dense options. Rice is also very efficient at pulling heavy metals, like arsenic, out of the soil, which is why several rice-centric baby foods have tested positive for arsenic.

The Set-Up

Find a comfy spot. Put your baby either in a high chair, infant seat, or even your lap. Just make sure your baby is upright so they can swallow properly without choking.

Don't start with a hangry baby. They will quickly grow frustrated when they can't get the food down as fast as they would like. You know what it's like to be hangry - don't set yourself up for failure. Remember, they're still learning how to eat something other than liquid. Instead, give your baby a little breast milk or formula first to ease their hunger. Eating solids at this point is more about practice and exposure than getting calories.

Use a soft-tipped spoon. Make it easy on their **tiny mouths and gums.**



Watch for their cues. Only offer them the food after they've shown some interest in eating it. Once they open their mouth slowly guide the spoon into their mouth.

Make sure to be encouraging and positive. They may be very eager for every bite or only interested in a couple. Follow their cues and go for as long as they like and stop when they lose interest. Let them listen to their own senses - they are learning how to taste, touch, and transition to a new feeding paradigm all at the same time.

Start with a very small amount. Start with half a spoonful, and gradually increase. This will give your baby time to learn how to swallow something other than liquid.

Be upbeat. Make sure to be encouraging and positive. You may feel silly, but say things like "Yum, yum, isn't that delicious?"



Takeaway

Start small and don't put too much pressure on the moment. Make sure to set you and your baby up for success, by giving a little bit of breastmilk or formula beforehand and optimizing for comfort, such as seating your baby in their high chair and using a soft-tipped spoon.

Signs Your Baby is Full

How much they eat will be dependent on how active they are and how fast they are growing. As babies age, they will also go through growth spurts. Some days they'll seem ravenous while other days they won't be very interested - so don't panic if their appetite fluctuates.

As we become adults and are exposed to external influences we have difficulty maintaining our innate ability to self-regulate our eating based off of hunger and fullness cues. It is important to remember that babies are good at regulating their own energy intake needs and it's even more important to remember to listen to those needs.

When your baby is hungry, feed them and when they are full, stop.

A healthy relationship with food starts early. Never make your baby eat just one more bite of food if they are full. Trust that your baby knows how to eat to their natural appetite.

Cues to look for:

- Leaning back
- Keeping lips pursed closed
- Turning head away
- Actively pushing food out
- Playing with food
- Pushing the spoon away
- Small whimpers
- Sudden arching



Be Persistent

The art of patience.

When you begin to introduce new foods to your baby, don't be surprised if they make funny faces. This is a natural reaction to the new tastes, and new sensations, that eating brings. These faces are not a sign of dislike, but a sign of discovery. If you offer the food and they open their mouth, they want more. If they refuse, then give that food a rest and bring it back in a couple of days.

This period of solid food introduction and complementary eating is an excellent time to develop a child's palate and

reduce picky eating in the future. The key is to expose your child to a wide variety of flavors and texture and repeat these exposures many times during the first 6-12 months of life. Neophobia and food preferences peak at 20 months of age and are more difficult to adjust in toddlerhood. Studies suggest that food preferences are largely set between the age of 3 and 4.⁴

Never give up and keep trying. Sometimes it just takes repeated exposure to get them to accept and embrace a new food. Studies have shown that it can take up to 10 times or more before a baby will accept a new flavor! Bitter flavors, such as vegetables, tend to be especially disliked and may need even more times of exposure until preferences are developed.

Pro-Tip

Another trick if your child seems fussy is to pair new foods with something familiar and liked. Infants will consume more of a food if they have a familiar flavor and texture.



What's Actually Healthy?

The basics of healthy feeding.



Variety

Exposure to a variety of flavors and real food is critical during this stage, as taste preferences are set during these early years. Beyond healthy produce, try unique herbs and spices, like curry, to expand their palate.



Limit the Sweet Stuff

In general, limit the sweet stuff for babies. Heavy exposure to sugars - even fructose- can increase their risk for obesity and metabolic disorders in the future. Before their first birthday, just say no to processed sugars. Also, fiber helps slow down the absorption of sugar, so it's smart to look for a balanced fiber to sugar ratio. In the long term, you're setting them up to reach for veggies over candy.



Nutrient Density

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See the Difference

Both purees are made from organic mangoes. The left was processed to be shelf stable for 2 years.

Avoid Heavily Processed Foods

Many packaged products are processed to be on the shelf for years. Some have preservatives, additives. Heavy processing usually involves exposing foods to high temperatures for long periods which can denature water-soluble vitamins.

The Not So Sweet Stuff



Dr. Michael Goran is a Yumi advisor and Professor of Pediatrics at the Keck School of Medicine at USC. A renowned expert in early childhood metabolic issues, he is also the Director at USC's Childhood Obesity Research Center and the author of *Sugarproof: The Hidden Dangers of Sugar That Are Putting Your Child's Health at Risk and What You Can Do*.



The flavors children are exposed to in the first 1,000 days have a profound impact on the flavors they will crave later in life.

Kids today, especially young children, are consuming more sugar in liquid form than ever before. They are also consuming different types of sugar that can disrupt healthy growth and development. The science is stunning. According to Dr. Michael Goran, a leading expert on childhood nutrition, sugar has both near and long term effects on a child's metabolic and neural health.








“Too much sugar impairs children's abilities to excel at their tasks, whether it's building a tower of blocks at age two, writing an essay for a college application at age seventeen, or taking standardized tests in the classroom at any age,” he writes in his book, *Sugarproof: The Hidden Dangers of Sugar That Are Putting Your Child's Health at Risk and What You Can Do*.⁵

Oh Poop.

Poops are about to get more interesting.

As you introduce solid foods to your baby you will notice their stools change. They will become more solid, change in color, and have a much stronger odor. Green vegetables like spinach or peas may turn their stool green while beets may turn it a red hue. Undigested bits of food may also be present like the casing of peas or seeds in raspberries. All this is very normal.

You may also notice that your baby's bowel movements become less regular, and they may even get a little constipated. This too is normal. To help ease sluggish elimination you can try increasing the amount of water in their purees or giving them a little water to drink- caution, babies should not drink water till about 6 months old, or until they start eating solids. Babies who are 6-12 months of age and eating solid foods can have between 2-4 ounces of water a day out of a cup or sippy cup. You do not want to replace breast milk or formula as their main source of nutrition. Pureed prunes can also help move things along.

-  **Greenish Black**
Common for newborn's first poop. When older, green poo can be from foods high in iron.
-  **Yellow Brown**
Common for formula-fed babies.
-  **Mustard Yellow**
Common for exclusively breastfed babies.
-  **Greenish Black**
Common for babies transitioning to solids. May reflect foods they are eating.
-  **Black**
Black for older babies - not newborns - may be a sign of something more serious.
-  **White or Grey**
Not normal, could be sign of a liver issue.
-  **Red**
Poop may appear more red after red foods, but blood in stools could be some constipation or something more serious.

The 411 on BLW

Is it right for you and your baby?

What is BLW?

Baby-led weaning is a technique coined by Gill Rapley, author of *Baby-Led Weaning Helping Your Baby to Love Good Food*. The practice, also described as “self-feeding,” is a way of introducing babies to solid foods that allows them to feed themselves. No spoons. Just hand to face. Food to floor.

This practice starts at 6 months and is all about discovery and enjoyment. The baby sits with the family at mealtime and makes a mess. Messes aside, many parents believe the Rapley Method has its advantages:

- Allows babies to explore texture, taste, color, and smell on their own
- Encourages confidence and independence
- Helps with hand-eye coordination and chewing skills
- Believed to make mealtime battles less likely to occur



To BLW or Not?

According to baby-led weaning devotees, all babies can begin to feed themselves around 6 months, they simply have to be given the opportunity. Deciding on whether baby-led weaning is right for your family, is a personal choice. Many parents we know use a blend of purees and baby led weaning compatible foods. With purees, it can be easier to cram more nutrition in a single bite, but it’s also great to encourage your kids to explore their pincer grasp and find joy in food, in its many forms.

Your comfort as a new parent is paramount. Remember our babies read our cues about food and mealtime. The most common concern is around choking. However, as with any solid foods, you should never leave your baby unattended or alone with food.

According to Rapley, “Choking is no more likely with baby-led weaning than with the conventional method of introducing solids. In fact, allowing babies to control what goes into their mouths may actually help them learn to eat safely.” She further explains the difference between choking and gagging, however as a new parent, both can be terrifying. If you’re more comfortable starting with purees, you have options.

How to Get Started

Sit your baby upright, facing the table. Make sure your baby is able to sit steadily and can use her hands and arms freely.

Offer your baby food, rather than give it to her – put it in front of her, or let her take it from your hand, so that the decision is hers.

Start with foods that are easy to pick up – Stage 4 Chunky Combos features full chunks of food that are easy to grab.

Introduce new shapes and textures gradually so that your baby can work out how to handle them. Include your baby in your meal times whenever you can. And don’t rush them! Allow them the opportunity to explore. Baby-led weaning should be messy! It’s experimental! It also requires extreme patience.

Always check with your pediatrician if you have any concerns or questions.

What's Not on the Menu

First foods to avoid in year one.

In general, there's a lot of foods your baby can eat and explore. As we've mentioned the exposure to a variety of healthy foods is critical during the first thousand days. But there are some to avoid, especially before their first birthday.

Choking Hazards

Foods that are a choking hazard, such as hot dog, non-cut grapes, candy, popcorn, etc.

Cow's Milk

The AAP recommends avoiding cow's milk until at least 1 year of age due to the difficulty digesting the protein and fat.

Juice

No juice for children under 1, according to the AAP. Early juice intake is linked to future metabolic issues and a preference for sugar.⁶

Highly Processed Foods

Avoid foods that are highly refined, high in added sugar, salt, and additives. The general rule is to avoid added salt introduction until 1.

Honey

There is a small chance honey can contain Clostridium botulinum, which can lead to a potentially fatal infection. It is recommended to wait until at least 1 year of age to introduce honey when the infant's digestive system is more developed.



A Word on Allergens

The science is evolving.

For many years, parents were instructed by their friends, family members, and even doctors to avoid introducing allergens for the first few years of life.

There's new evidence,⁷ however that introducing allergens into an infant's diet early on – at about 4 to 6 months of age, starting with small doses – may actually help prevent allergies. There are about 8 allergens that are considered the big 8: tree nuts, peanuts, milk, soy, gluten, shellfish, eggs, and fish.

Of course, every family needs to assess their comfort level with allergen introduction and should speak to their pediatrician, especially if there is a family history of food allergies.

If you are considering early allergen introduction, below are a few tips:

- 1 Start with small servings. Use small doses so you can gauge your kid's reaction to allergens, especially nuts
- 2 Don't give whole nuts. Whole nuts will be a choking hazard, especially if your baby hasn't developed the ability to properly chew yet.
- 3 Avoid brands with added sugar/salt. Be sure to read the back of the label. There are plenty of brands made without added sugar/oil/salt.
- 4 Try powdered versions of allergens. The powdered version of nut butters, for instance, make it easy to add a small amount to your baby's puree, mashed bananas, or other foods.

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