

Baby Led Weaning: The What, The Why, The How

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Join the presentation:



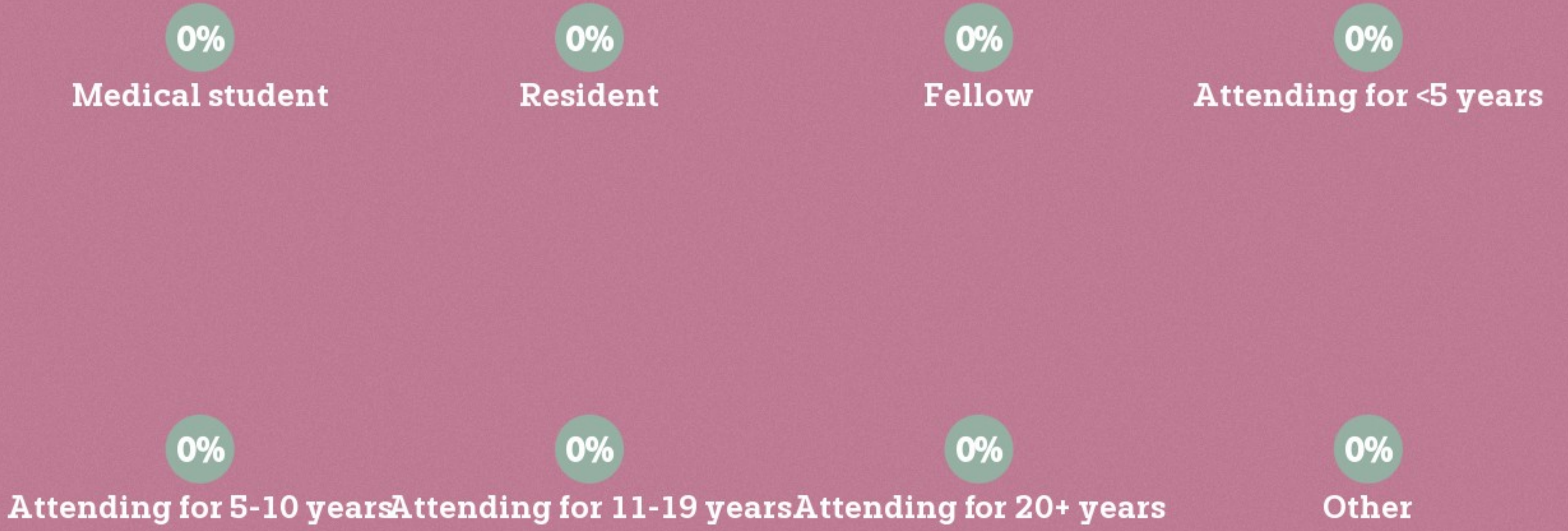
I have no relevant disclosures

...but you will be seeing a lot of baby photos!





What is your level of training?



What experience do you have with Baby Led Weaning?

0%

I've never heard of it

0%

I've heard of it, don't really know what it means

0%

I know the concept

0%

I know someone/patients who have used BLW, or I follow people on social media

0%

I have personally used BLW with children I've cared for



When you think of babies starting solids, what words come to mind?



In the early 1900s through 1920s, at what age were solid foods commonly introduced to babies, in (numerical) months?

The correct answer is: 12



By 1960, at what age were solid foods commonly introduced to babies, in (numerical) months?

The correct answer is: 1



1-2 months of age...

-Desiccated steak at 1-3 weeks of life

-Cereals on DOL 2

1958 AAP Committee on Nutrition:

"On the basis of present knowledge, the Committee is in agreement that no nutritional superiority or physiologic benefit results from introduction of solid foods into the infant diet prior to 2 1/2 to 3 months of age." (1)



Why did the timing change from 8-12 months to 1-2 months?





The baby food aisle



How old is the original "Gerber baby" in this sketch?





FIGURE 1. Commonly accepted age of introducing solid foods. In the space of a few decades, U.S. infant feeding norms changed dramatically: from mostly breast milk or formula substitutes through much of the first year at the turn of the century to the introduction of solids at four to six weeks by midcentury. As scientific studies revealed the harmful effects of early solids, the advice and practice began to reverse with regard to age. (Graph by Ruby Gary)

Age at solid food introduction



What age (in months) do you recommend introduction of solids to patients?



Timing - where we are now

-WHO: "Around the age of 6 months"

-AAP: "Babies should be exclusively breastfed
for about the first 6 months of life"

What's actually done?

-Average age in US is 4.7 months

-Among Missouri children, 28.5% introduced
to solids before 4 months of age.

When baby is ready:

- At or about 6 months
- Sit up without much support
 - Head control
 - Tongue thrust reflex is gone
 - Interest in food
- For BLW, can pick up food and put it in mouth - palmar grasp for larger pieces
 - Can decline food if not doing BLW

The What: BLW

- Introduction of complementary solids
"Weaning"
- Coined by Gill Rapley in the UK (5)
- Vs "traditional" feeding
 - Allows baby to lead
 - Start with soft solids



The What continued

- Allows child to feed herself
- Promotes independence
- Encourages sensory exploration



Playing with food





The Why: BLW

- Teaches responsive feeding
- Hypothesized decreased rates of obesity
- Hypothesized decreased picky eating
- Encourages family meals

Responsive feeding

- In cross-sectional study of 702 mothers, compared to traditional group BLW mothers did not pressure their children as much during mealtimes, were less concerned with weight, did not directly interfere with amount of food consumed, promoted self-regulation of appetite (6)
- Another study of 298 mothers, BLW mothers reported pressuring children to eat less & less food restriction; infants were significantly more responsive to satiety (7)

Picky eating

- 1) Toddlers at 18-24 months who followed BLW were less likely to be "fussy" eaters, more likely to control appetite (7)
- 2) In preschoolers, BLW group had greater preference for carbohydrates (grains) while traditional group had preference for sweet foods (8)
- 3) RTC randomizing to spoon feeding vs BLW - in BLW/BLISS group, less food fussiness and greater enjoyment of food at 12 months (9)





Obesity

298 mother-infant dyads:

- Traditionally fed infants heavier than BLW group at 18-24 mos (by 1kg)
 - BLW group: **86.5%** normal weight, **8.1%** overweight, **5.4%** underweight
 - Traditional group: **78.3%** normal weight, **19.2%** overweight, **2.5%** underweight (7)

Obesity

In preschool children in case-controlled sample, increased obesity in spoon-fed group (8/63 vs 1/63) (8)

Obesity

**In a RTC of 280 infants, mean weight in
TSF infants was 0.6kg higher than BLW
infants**

-TSF infants: 17% overweight

-BLW infants: 0% overweight (10)



Obesity

In New Zealand BLISS trial with 166 infants, no difference in weight between traditional and baby-led approaches at 24 months (9)

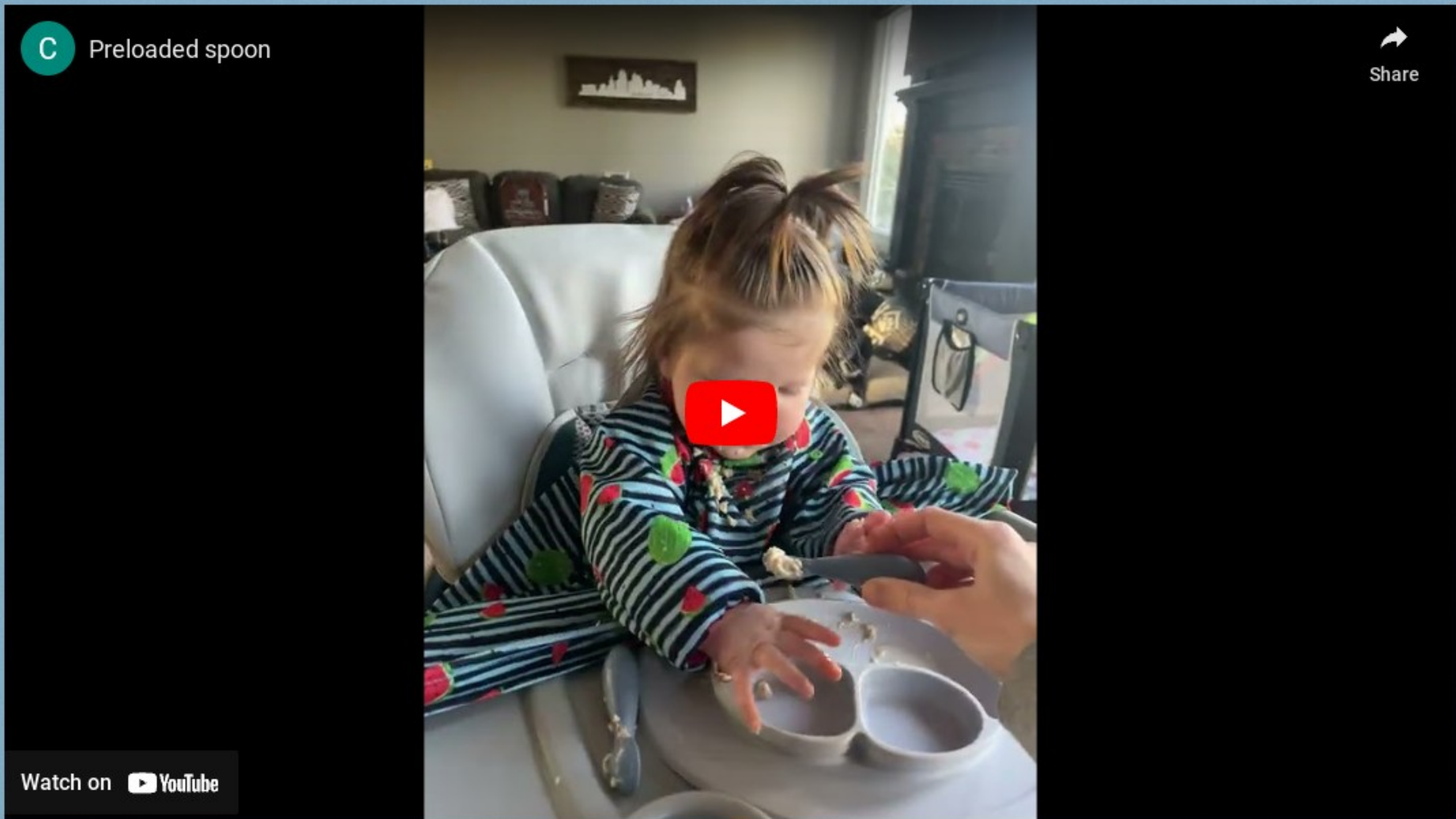


The How

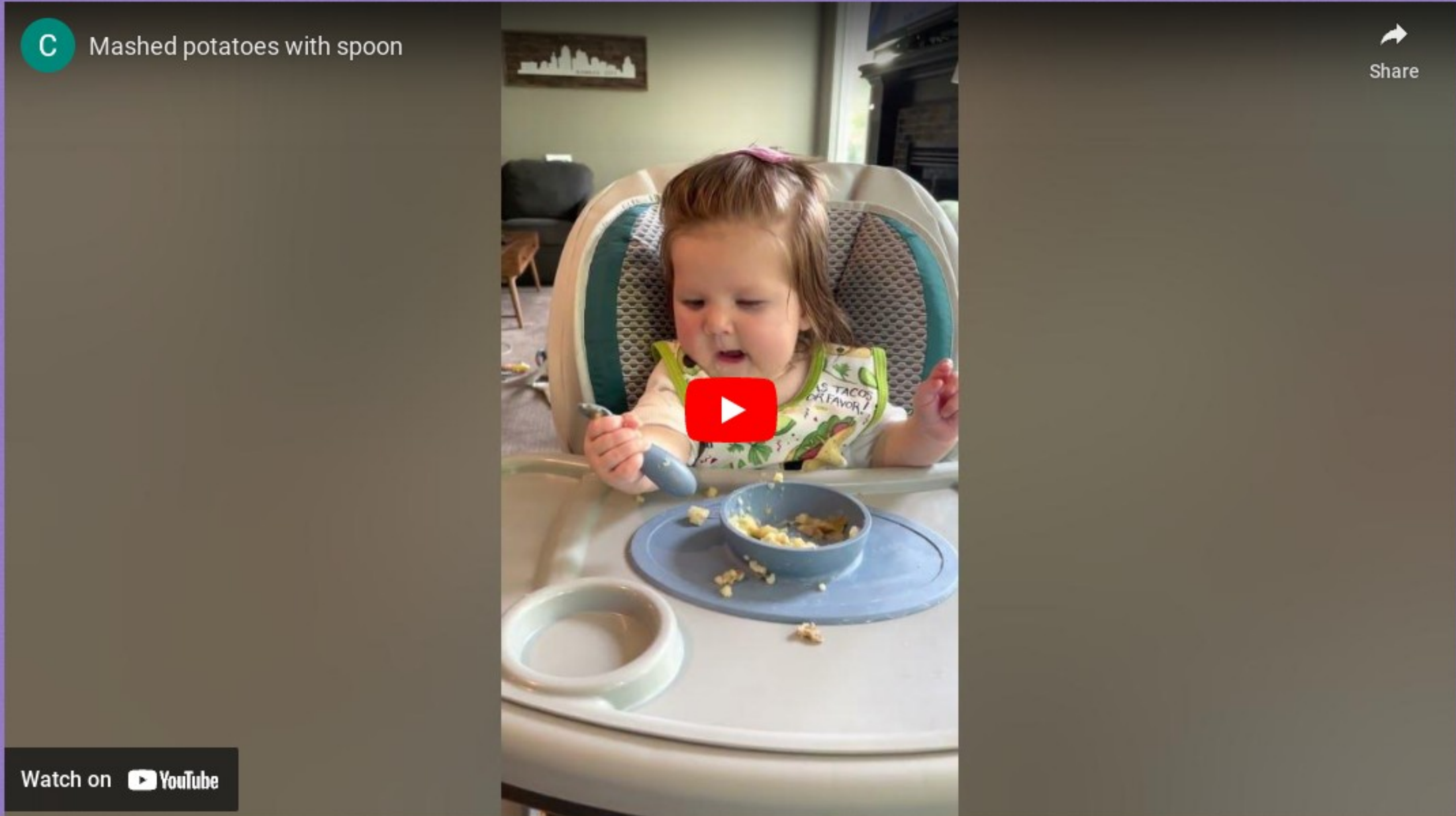




Pre-loaded spoon



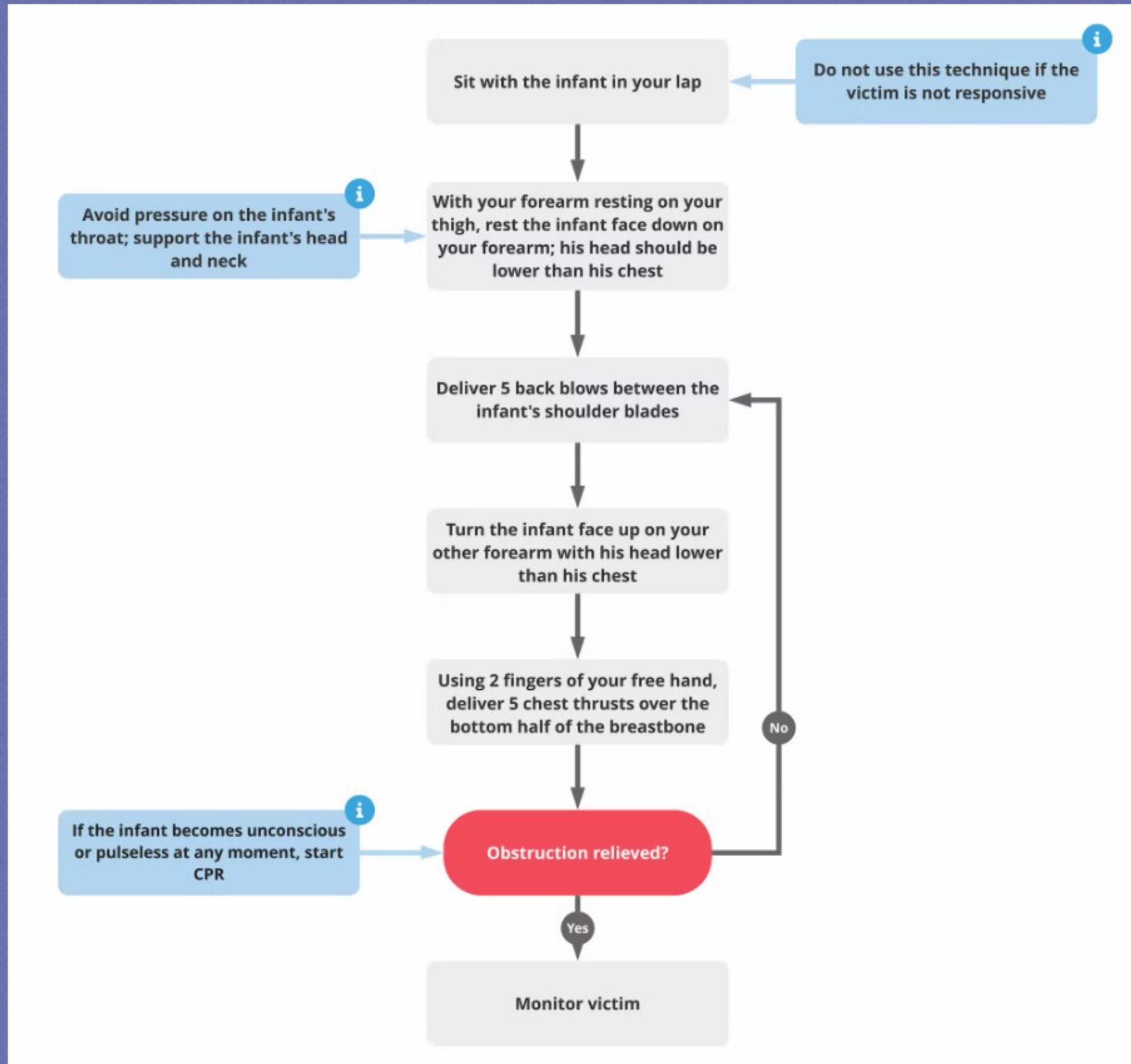
Pre-loaded spoon



Pre-loaded spoon technique...and gagging

Side note: gagging vs choking. What is the difference?





BLS Choking Infant Algorithm



Gagging vs choking

Is there an increased risk of choking?

-Cross-sectional study, surveyed 1151 mothers: choking frequency risk was the same (13.6% total)

---Higher frequency related to eating finger-foods less often (14)

A Baby-Led Approach to Eating Solids and Risk of Choking

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abstract

OBJECTIVE: To determine the impact of a baby-led approach to complementary feeding on infant choking and gagging.

METHODS: Randomized controlled trial in 206 healthy infants allocated to control (usual care) or Baby-Led Introduction to Solids (BLISS; 8 contacts from antenatal to 9 months providing resources and support). BLISS is a form of baby-led weaning (ie, infants feed themselves all their food from the beginning of complementary feeding) modified to address concerns about choking risk. Frequencies of choking and gagging were collected by questionnaire (at 6, 7, 8, 9, 12 months) and daily calendar (at 6 and 8 months); 3-day weighed diet records measured exposure to foods posing a choking risk (at 7 and 12 months).

RESULTS: A total of 35% of infants choked at least once between 6 and 8 months of age, and there were no significant group differences in the number of choking events at any time (all P s > .20). BLISS infants gagged more frequently at 6 months (relative risk [RR] 1.56; 95% confidence interval [CI], 1.13–2.17), but less frequently at 8 months (RR 0.60; 95% CI, 0.42–0.87), than control infants. At 7 and 12 months, 52% and 94% of infants were offered food posing a choking risk during the 3-day record, with no significant differences between groups (7 months: RR 1.12; 95% CI, 0.79–1.59; 12 months: RR 0.94; 95% CI, 0.83–1.07).

CONCLUSIONS: Infants following a baby-led approach to feeding that includes advice on minimizing choking risk do not appear more likely to choke than infants following more traditional feeding practices. However, the large number of children in both groups offered foods that pose a choking risk is concerning.



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Ms Fangupo compiled the choking data, carried out the initial analyses on choking, and drafted

WHAT'S KNOWN ON THIS SUBJECT: Although baby-led approaches to infant feeding, in which infants feed themselves all their foods from the start of complementary feeding, are increasingly popular,

Downloaded from http://publications.aap.org/pediatrics/article-pdf/138/4/e20160772/1063312/peds_20160772.pdf by Truman Medical Cr East, Collee



No increased risk of choking...

Other RTC from Turkey: 280 infants, no
difference in choking episodes
-Only 5 total infants choked (2%)



Foods to avoid:

Hard apple slices

Raw carrots

Nuts

Popcorn

Marshmallows (expand)

Sausage slices, hot dogs

Whole grapes, cherry tomatoes
(Honey til age 1)

General principles

1. Test foods before they are offered to ensure they are soft enough to mash with the tongue on the roof of the mouth (or are large and fibrous enough that small pieces do not break off when sucked and chewed, eg, strips of meat) especially in the early months.
2. Avoid offering foods that form a crumb in the mouth.
3. Make sure that the foods offered are at least as long as the child's fist, on at least one side of the food.
4. Make sure the infant is always sitting upright when he or she is eating, never leaning backwards.
5. Never leave your baby alone with food; always have an adult with the child when he or she is eating.
6. Never let anyone except your baby put food into her mouth; the infant must eat at her own pace and under her own control.

Foods to avoid when introducing solids to your baby

1. Foods that you can't mash on the roof of your mouth with your tongue
2. Very small foods such as nuts, grapes, sweets, and fruit with stones (unless you've removed the stones)
3. Raw vegetables
4. Raw apple (whole or sliced)
5. Underripe or hard fruit
6. Citrus fruits (oranges, mandarins) unless each segment has been peeled
7. Whole nuts (peanut butter and other nut butters are fine)
8. Popcorn
9. Sausages, carrots, or any other similar food cut into rounds or "coins"

FIGURE 1

Intervention messages to minimize the risk of choking.



The How, continued

Start with single ingredient foods
Large size









Large food pieces

How to offer foods

As they grow, sizes of food get smaller
Pincer grasp by 9 months







When can I introduce peanut-containing foods?



At 6 months



After 1 year



After 3 years





When can I introduce foods with dairy/milk?



At 6 months



After 1 year



After 3 years



Leaderboard

No results yet

Top Quiz participants will be displayed here once there are results!





Yogurt...



Post-yogurt

Allergenic foods



Concerns with BLW

- Choking
- Mess!
- Iron deficiency
- Inadequate energy intake
- Poor access to healthy foods







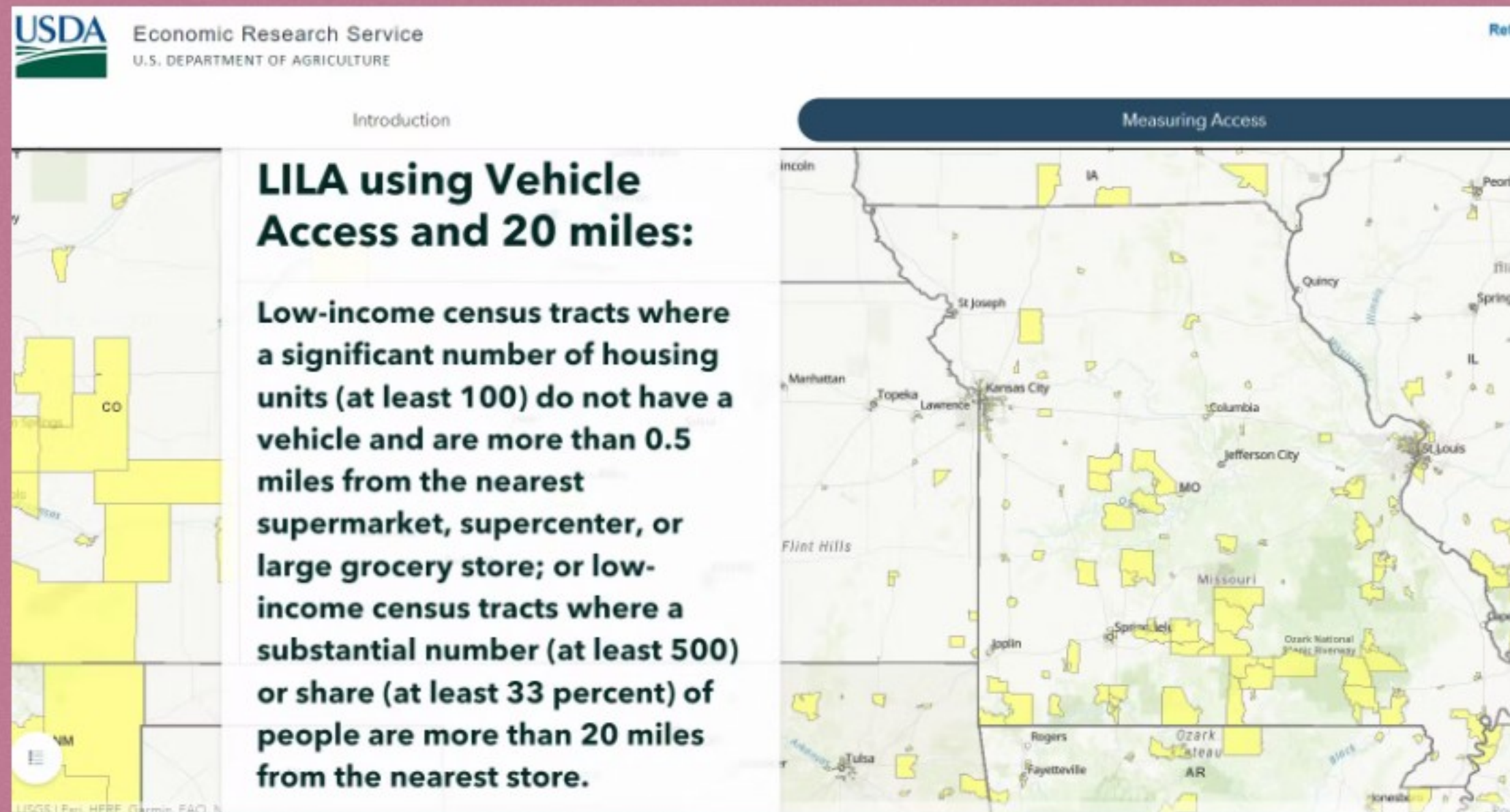
How to deal with the mess



Nutrient/iron intake

Turkish RTC: 280 infants randomized to BLW or traditional feeding. No difference in iron intake, similar Hgb at 12 mos (10)

Limited Access



-"Food deserts "- 14% of US Census tracts met criteria for low income with limited access to supermarkets

-Food insecurity- 12.5% (1 out of 8) households with children in 2021 were food insecure (16)

-How can we expect fresh foods for babies without access?





Baby food can be protective...

- Among infants 6-12 mos, commercial baby food is associated with dietary variety in fruits & vegetables among WIC participants
- FITS study: French fries were primary vegetable in kids who transitioned to table food at earlier age (3)



Recap of BLW: What & How

- -6+ months, developmentally ready, typically whole foods
- -Only baby places food in her mouth and decides what to eat, how much, and what pace
- -Family foods offered in modified (soft) way
- -No need to wait 3 days between food introduction
- -Can do purees and "baby foods" but not exclusive texture
- -Pre-loaded spoon



BLW recap continued

- -Encourage iron-rich foods-- or MV with iron
- -Baby supervised, in high chair
- -No honey or choking hazards
- -Fresh, not processed foods, not "junk" food
- -No added salt until age 1
- -No added sugar until age 2!
- -Pay attention to hunger cues



Evidence recap: We need more studies!

- Possibly decreased rates of picky eating & obesity, increased satiety responsiveness
- Many observational studies
- Low evidence quality, often self-reported
- Confounders



Can I do both?

Sure...kind of!

-Not for every infant/parent

-Purees are also important for babies to
master

-If spoon-feeding, practice responsive feeding



Resources for parents (and you)

Solid Starts - app and website

BLW meals app

Facebook groups on BLW

Podcasts: Katie Ferraro BLW Made Easy, My Little Eater

Books:

-Gill Rapley & Tracey Murkett "Baby Led

Weaning: The Essential Guide"

-"Why Starting Solids Matters" - Amy Brown

How to Cut Strawberries for Babies

@solidstarts

6 - 9 months



9 months +



18 months

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Conclusions

- BLW is an alternative feeding method to consider that could have lasting benefits, but limited research to support or refute
- Can be supported by healthcare professionals as long as concerns are addressed



References & Acknowledgements

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Questions?

