

Michigan Autism Training Videos Presents:

Assessment of Pediatric Feeding Disorders

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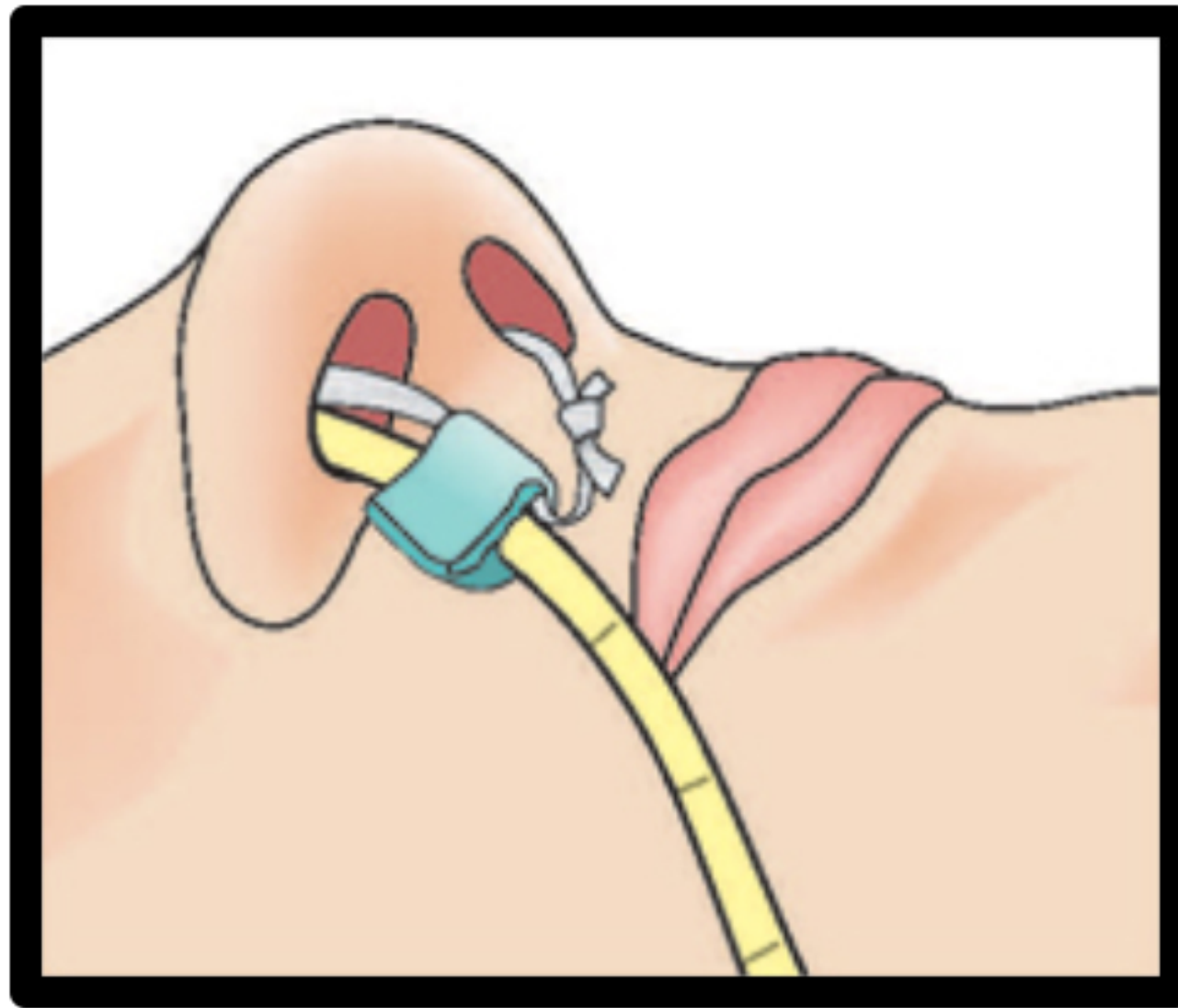
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PEDIATRIC FEEDING DISORDERS

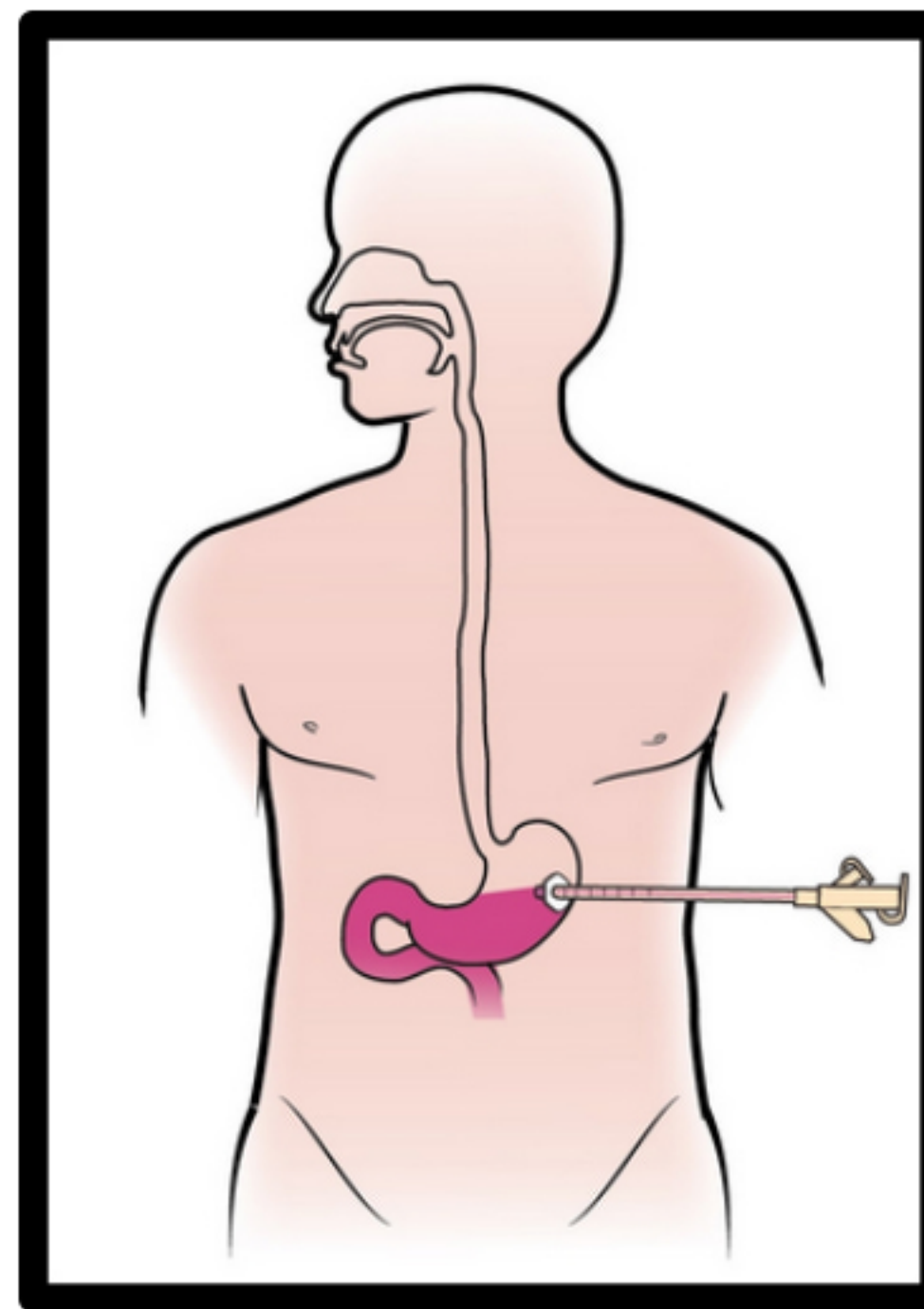
- Identified when a child fails to consume a sufficient variety or quantity of food to maintain nutritional status
- Most serious cases
 - Not eating enough food
 - Not eating the right kinds of foods

TYPES OF TUBES

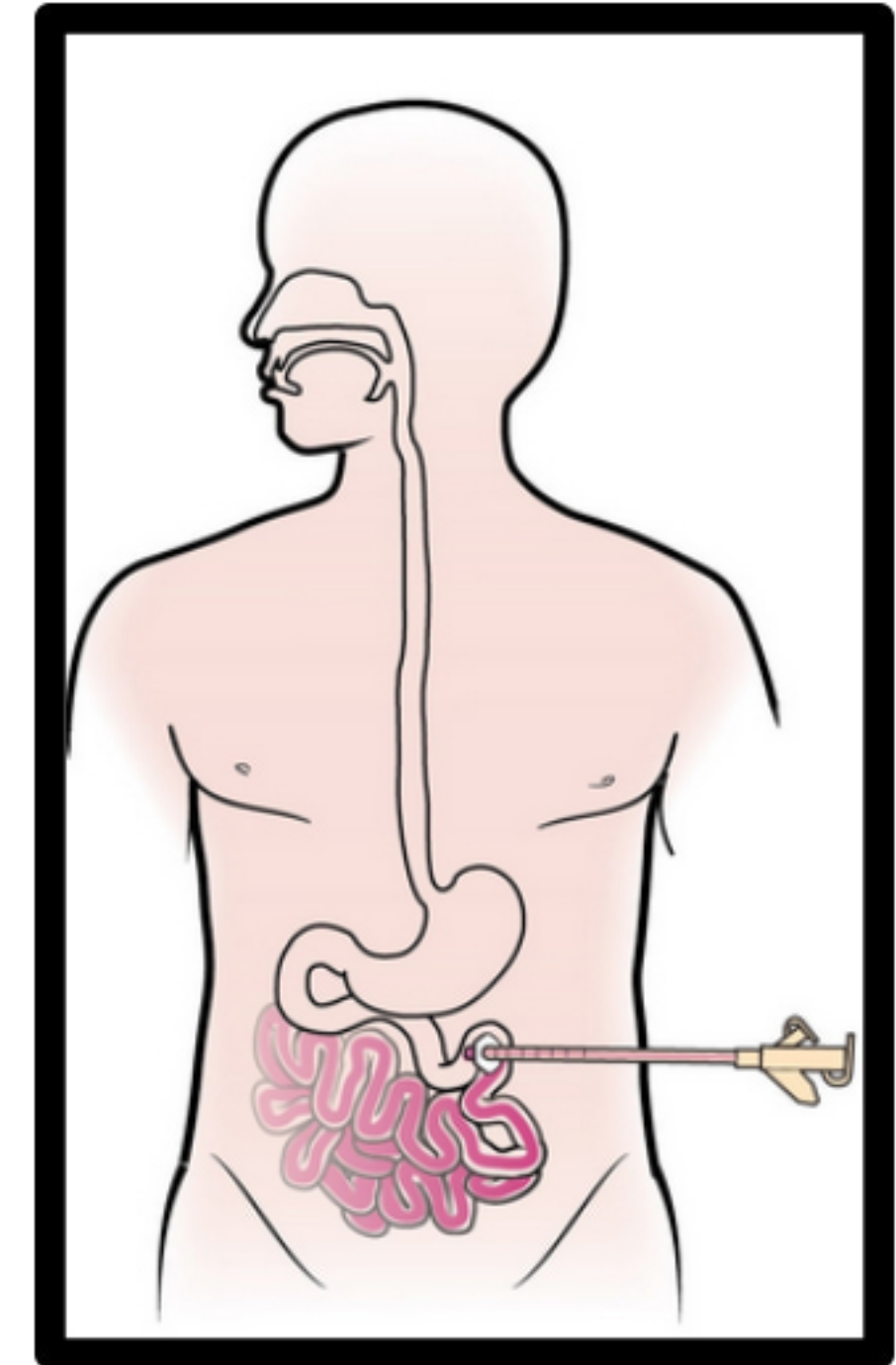
1 Nasogastric Tube
(NG Tube)



2 Gastrostomy Tube (G-Tube)
/ Percutaneous Tube (PEG)



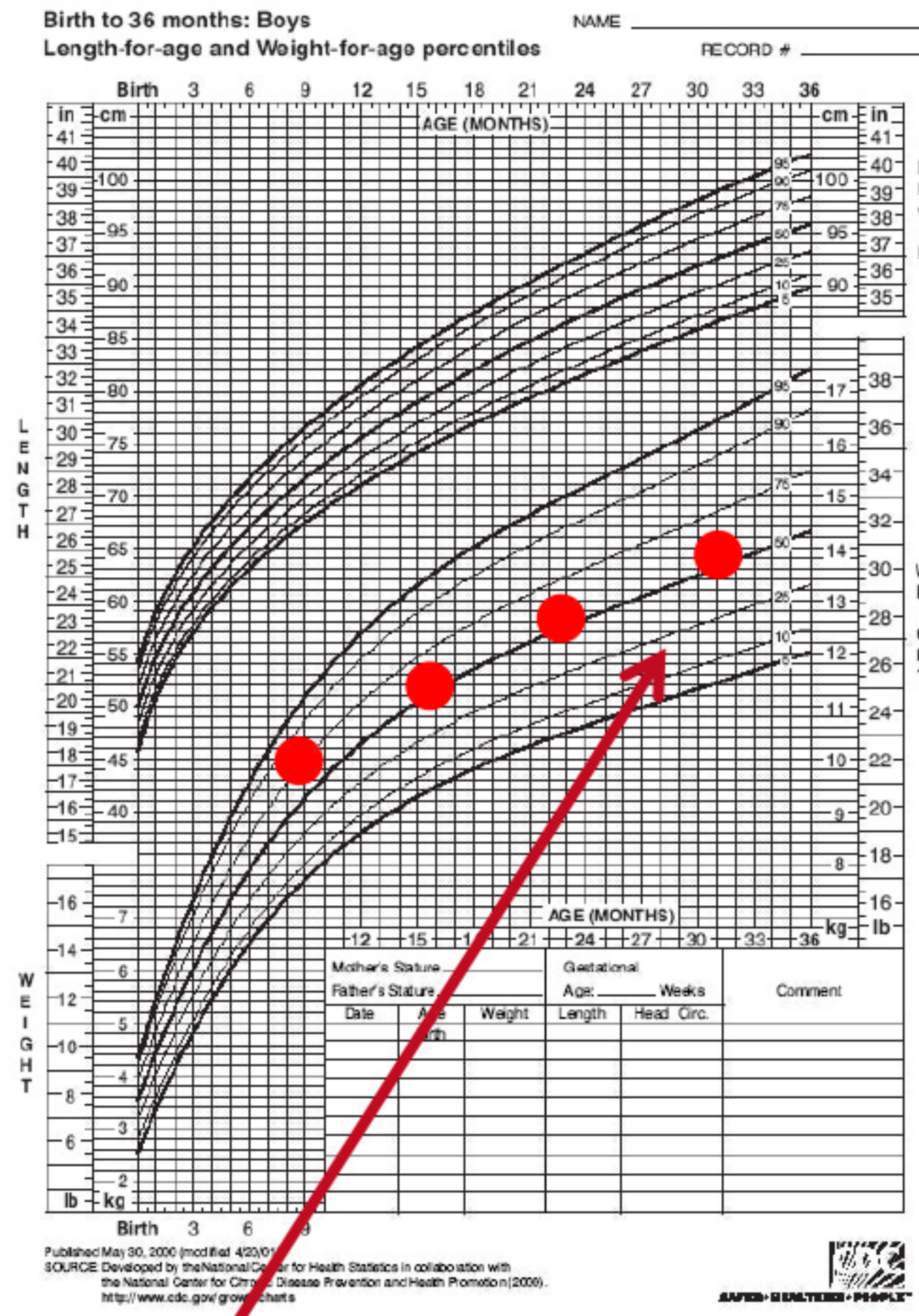
3 Jejunostomy (PEJ)



RESTRICTED FLUID INTAKE

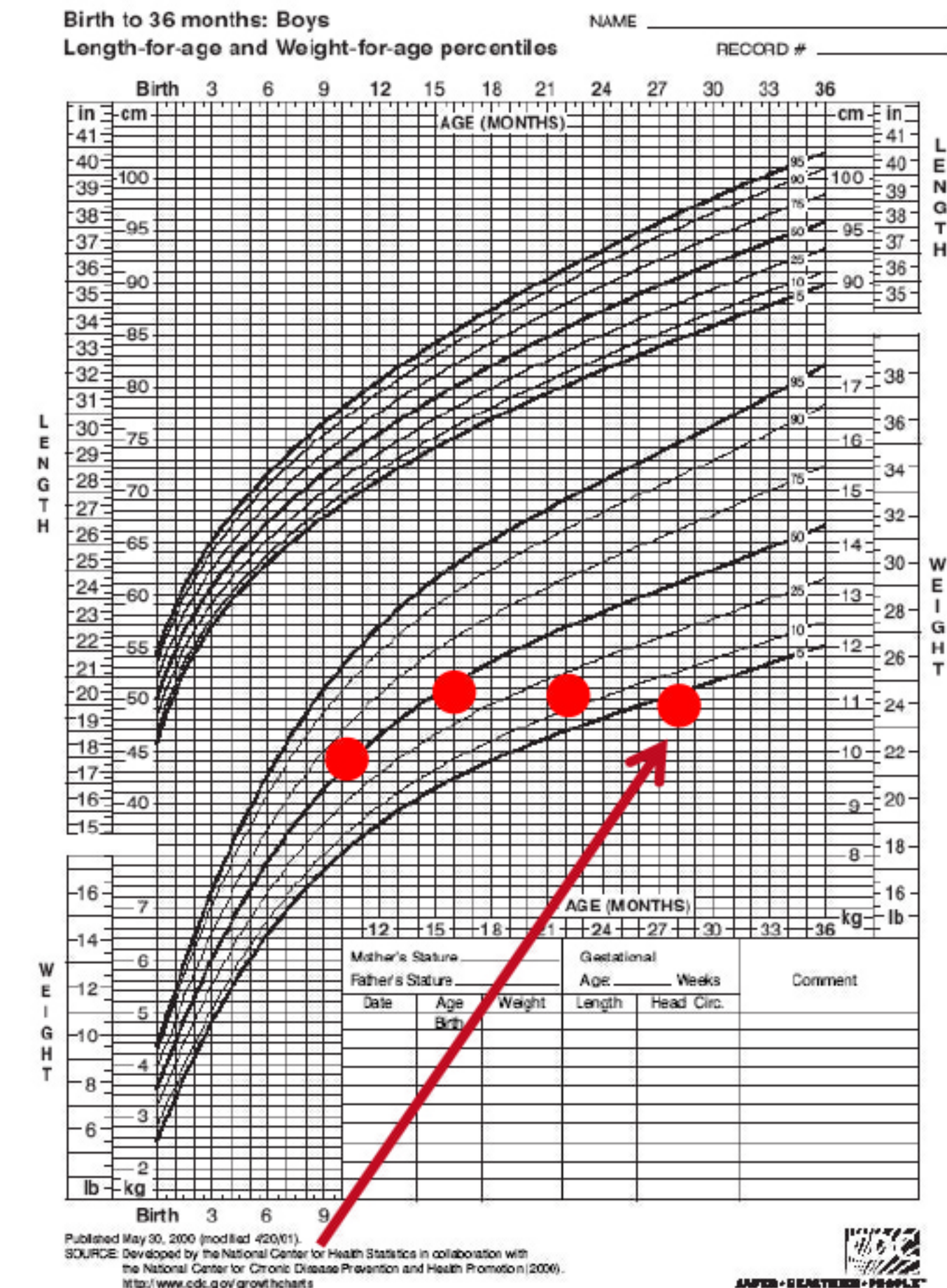
- Caution: Concerns about dehydration

TPYICAL



Child should maintain growth along his or her own curve.

DISORDERED



Growth should not decelerate.

REFERRALS

- Weight gain is not always predictable
- Referrals may first go to other physicians to rule out medical issues
- Behavior analysts receive referrals after medical rule outs

CAUSES OF FEEDING DISORDERS

- Medical Problem
 - Current or underlying
 - Approximately 60% of children with feeding problems also have medical problems.
- Premature babies
 - Tube fed
 - Unable to pair hunger and satiety with feeding by mouth

NEOPHOBIA

- 18 months of age
- Will not eat new foods
- May resolve with continued exposure to variety of new foods

PARENTAL ROLE

- Do not blame parents for emergence of problem
- Parents can aide in solving the problem

PREVALENCE OF FEEDING DISORDERS

- Of children referred to clinic
 - 50% typically developing
 - 50% developmentally disabled
- Of children with Autism and developmental disabilities
 - Estimates vary between 30-80%

MEDICAL CONSIDERATIONS AND ASSESSMENT

- Obtain parent permission to consult with child's medical providers
- Explain behavioral approach to eating disorders and seek medical support
- Appropriateness for Oral Feeding
 - Some children are unable to block airway and so are not safe oral feeders
 - Frequent choking
 - Frequent pneumonia episodes
 - Gurgling sounds in lungs
 - Could indicate a medical or physiological contraindication

INTERDISCIPLINARY APPROACH

Consider a comprehensive, interdisciplinary evaluation before starting treatment

- Interdisciplinary team evaluation:
 - Medicine: Rule out physical causes of feeding problem
 - Nutrition: Evaluate adequacy of current intake
 - Social Work: Evaluate family stressors
 - Speech/Occupational Therapy: Evaluate oral-motor status and safety
 - Psychology: Assess contribution of environmental factors

ASSESSMENTS TO EVALUATE PARENT-CHILD INTERACTIONS

- Tell parents to feed child as normal
- Parents bring utensils and food to simulate home environment in clinic
- Data on parent and child behavior
- Can structure more depending on parent and child interaction
- Use structured observations to establish baseline
- Use baseline to monitor clinical progress

ASSESSMENT DATA AND GOALS

- Accepting the bite of food within a specific time frame
- Pocketing (packing) or spitting food
- Inappropriate behaviors- turning head, hitting spoon, aggression, SIB
- Parent praise for appropriate behavior, attention to inappropriate behavior, removing food contingent on inappropriate behavior

EATING AND DRINKING UTENSILS

Maroon Spoons



Rubber-Coated
Baby Spoons



Nuk Brush



FUNCTIONAL ANALYSIS OF PEDIATRIC FEEDING DISORDERS

- Piazza, Fisher, et al. (2003) conducted functional analyses of inappropriate mealtime behavior of 15 children diagnosed with a pediatric feeding disorder.

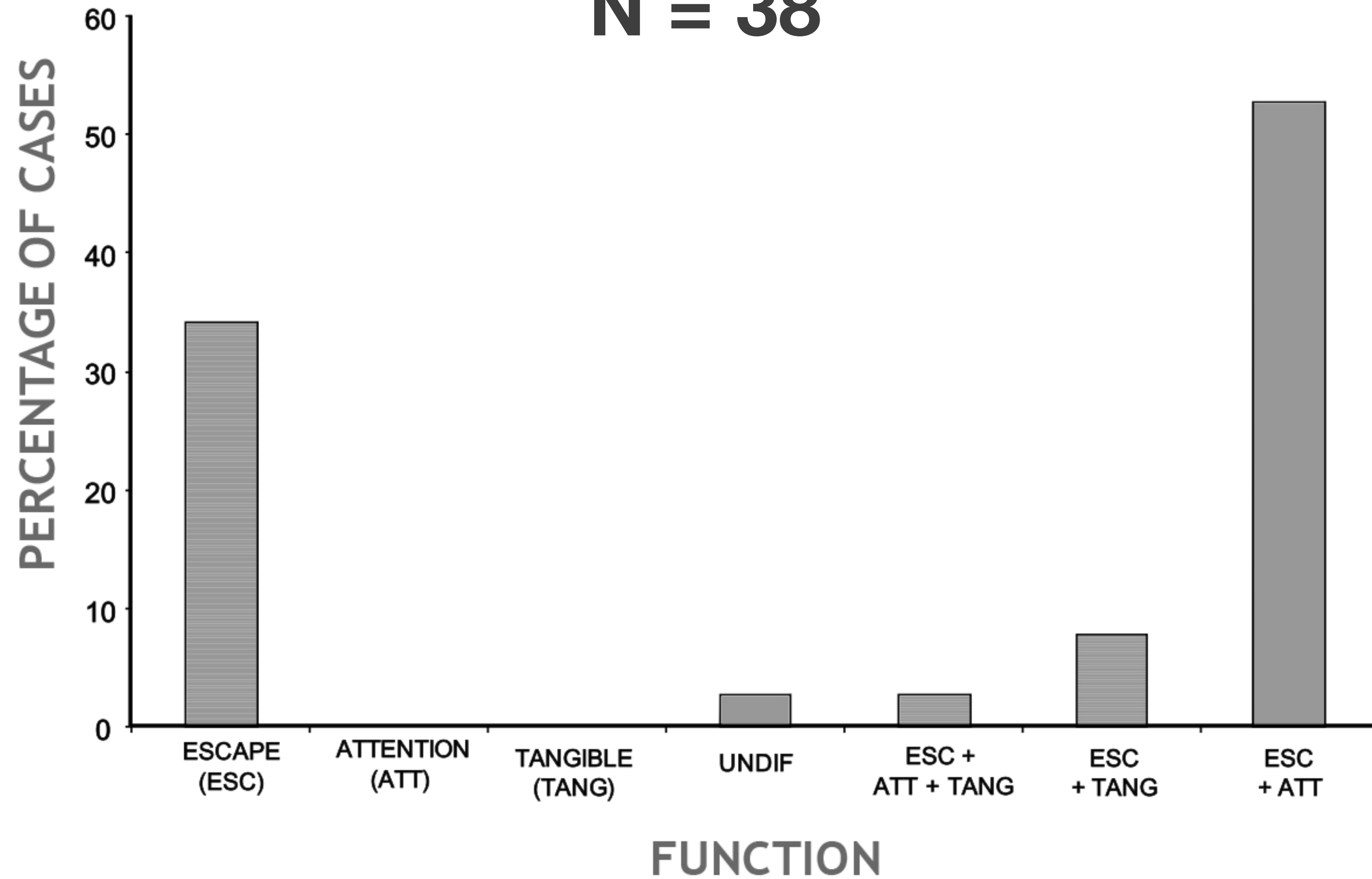
Piazza, C. C., Fisher, W. W., Brown, K. A., Shore, B. A., Katz, R. M., Sevin, B. M., Gulotta, C. S., & Patel, M. R. (2003). Functional analysis of inappropriate mealtime behaviors. *Journal of Applied Behavior Analysis*, 37, 187-204.

FUNCTIONAL ANALYSIS OF INAPPROPRIATE EATING BEHAVIOR

| Test Condition | Consequences for Inappropriate Behavior | |
|---|--|---|
| | Bite Presentation | Other Therapist Behavior |
| ESCAPE | remove bite for 30 s | 30 s of escape from demands |
| ATTENTION | Bite remains at midline | 30 s of attention from therapist |
| CONTROL | Bite remains at midline | no differential consequence |
| *TANGIBLE (only if this cause is suspected) | Bite remains at midline | 30 s of access to tangible item |

FUNCTIONAL ANALYSIS RESULTS

N = 38



ANTECEDENT ASSESSMENTS

- Oral Motor Issues Assessed
 - Changing textures of food
 - Bite placement, different utensils
 - Moving bite from tongue to molars
 - How food is expelled

STUDIES ON THE EFFECTS OF REINFORCEMENT

Reinforcement of the First Behavior in the Chain (Acceptance) vs
Reinforcement of the Terminal Behavior in the Chain (Mouth Clean)

Sr+ Acceptance

Sr+ Swallowing (Mouth Clean)

Does not make a difference which behavior is reinforced!

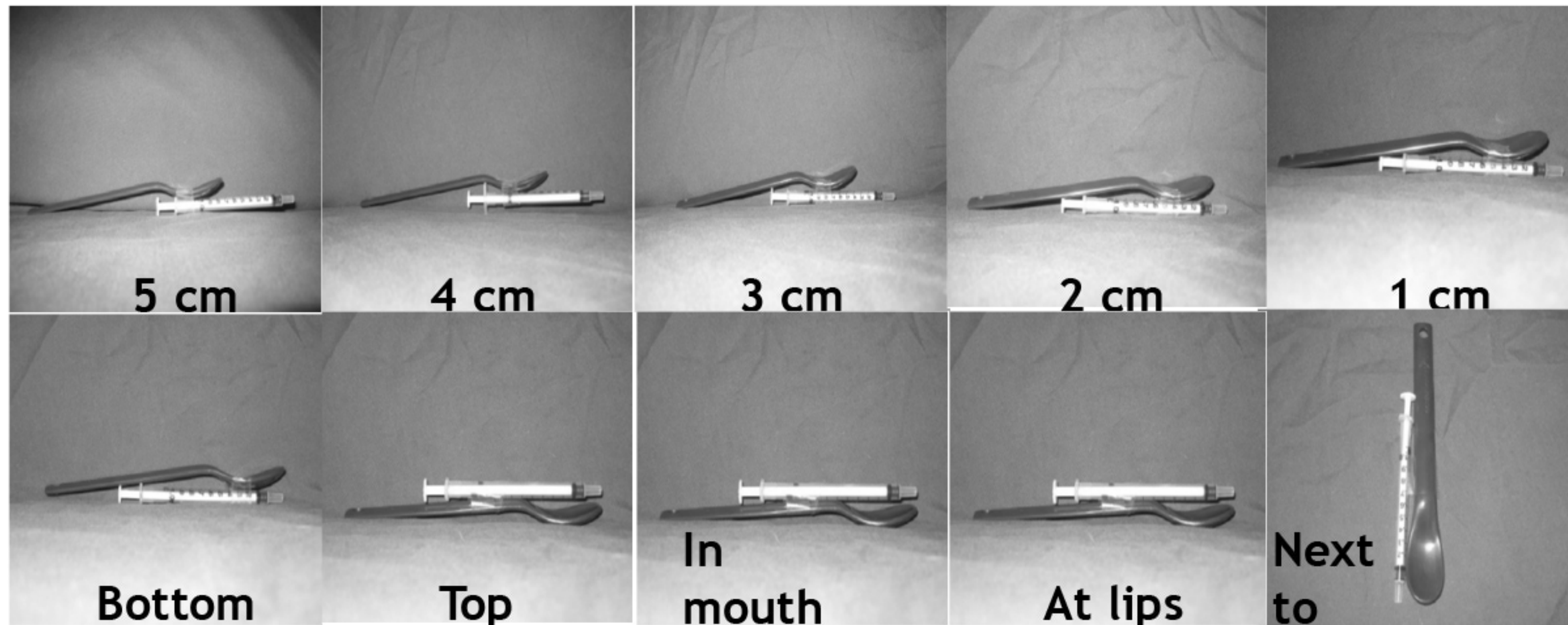
ESCAPE TREATMENT

- 90% of children will have escape as a function
- Start with behaviors the child does emit
- Use foods, liquids, utensils the child will take

CANCER PATIENT CASE STUDY

Client could take medicine through syringe, and so this behavior he could emit was used to increase food intake through stimulus fading

Deposit Syringe



Deposit Syringe

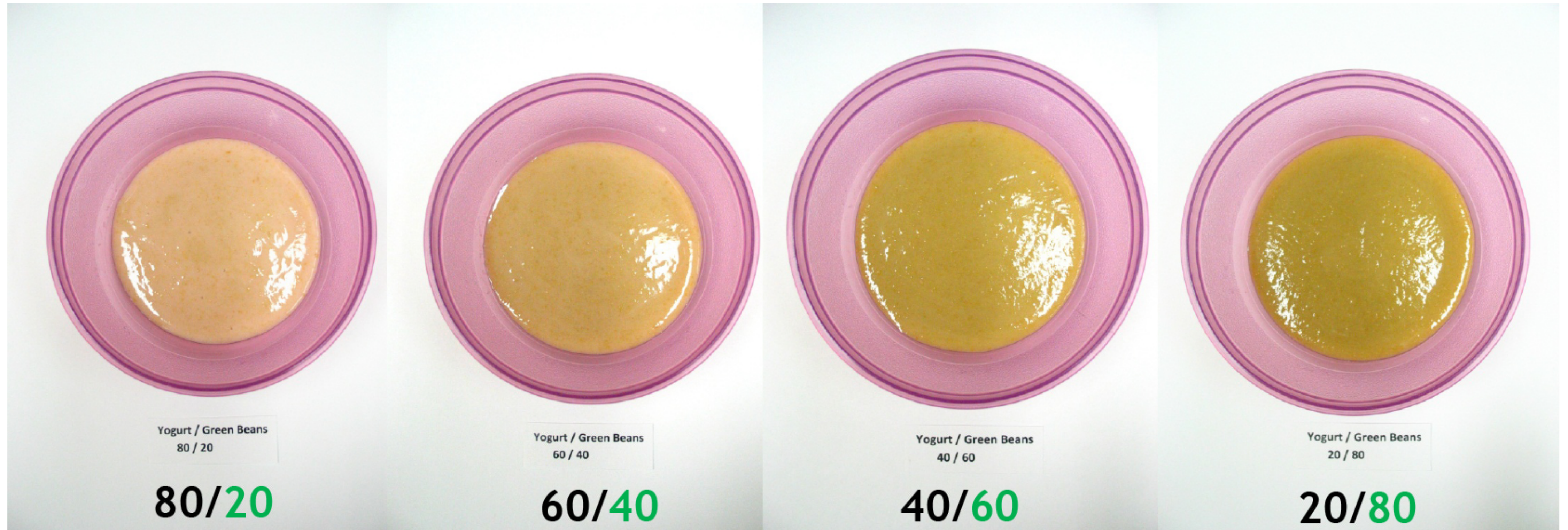
Deposit Spoon

Deposit Syringe

Groff, R. A., Piazza, C. C., Volkert, V. M., & Jostad, C. M. (in review). Syringe fading as treatment for feeding refusal. *Journal of Applied Behavior Analysis*.

BLENDING

Sample Yogurt/Green Bean Blends



Mueller, M. M., Piazza, C. C., Patel, M. R., Kelley, M. E., & Pruett, A. (2004). Increasing variety of foods consumed by blending nonpreferred foods into preferred foods. *Journal of Applied Behavior Analysis*, 37, 159-170.

RECOMMENDATIONS FOR COMMUNITY PRACTITIONERS

Low Negative Side Effect Treatment

- Functional Communication Training
- Differential Reinforcement for Appropriate Behavior
- Procedures to alter aversiveness of stimuli (stimulus fading, stimulus pairing)

More Aggressive Treatment

- Escape Extinction requires higher level of training and supervision
- Considerations for swallow safety
- May require referral to another specialist

COURSE OF TREATMENT

- Severe Cases
 - Day Program - Monday through Friday, 9-5
 - Big changes in feeding behavior, but then transferred to outpatient program to get to age typical (2-3 years)

PARENT AND CAREGIVER TRAINING

- Importance of structuring protocol
- Train anyone who will feed the child
- Parents observe the treatment and reversals before working directly with child and therapists
- Gradually remove therapist and require 90% accuracy
- Work in the home with the parent and observe all of the mealtimes to ensure generalization
- Provide handbook and written protocol for parents.

EARLY INTERVENTION

- Get to children prior to insertion of tubes
- Developmentally disabled children
 - Priority made by parents as to what behaviors will be targeted