



NUTRITION FOR DUCHENNE MUSCULAR DYSTROPHY

GRACE GOUGH, MS, RDN, CD

THE PLAN:

- Weight goals
- Calculating calories
- Nutrition recommendations
 - Micro and Macronutrients
- Swallowing Complications
 - Feeding tube assistance

WEIGHT AND BMI

- Nutrition complications and considerations with DMD
 - Overweight
 - Underweight
- Weight management is critical



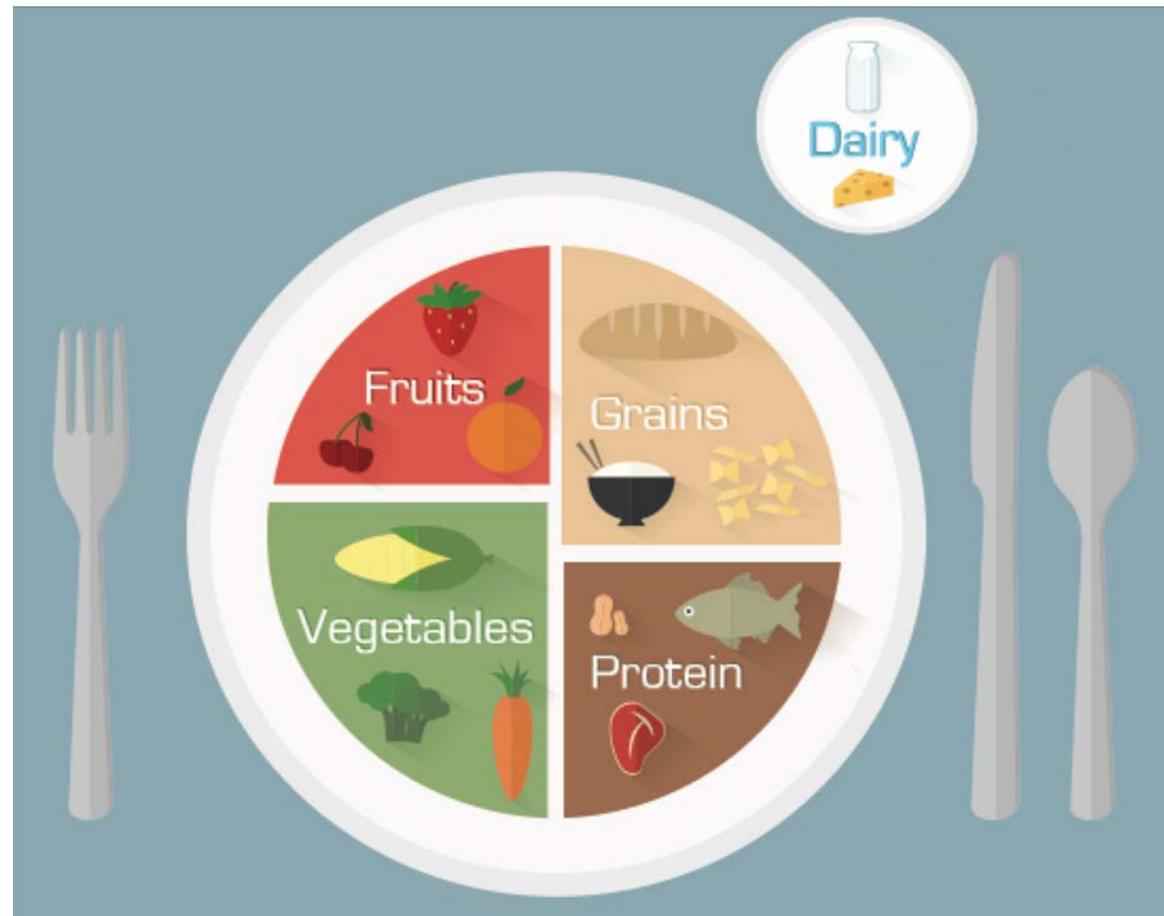
CALCULATING CALORIC REQUIREMENTS

- Resting Energy Expenditure (REE)
 - Indirect Calorimetry
 - Schofield Equation
- Calorie Counting



NUTRITION RECOMMENDATIONS

- MyPlate – www.choosemyplate.gov
- Adopt FAMILY goals



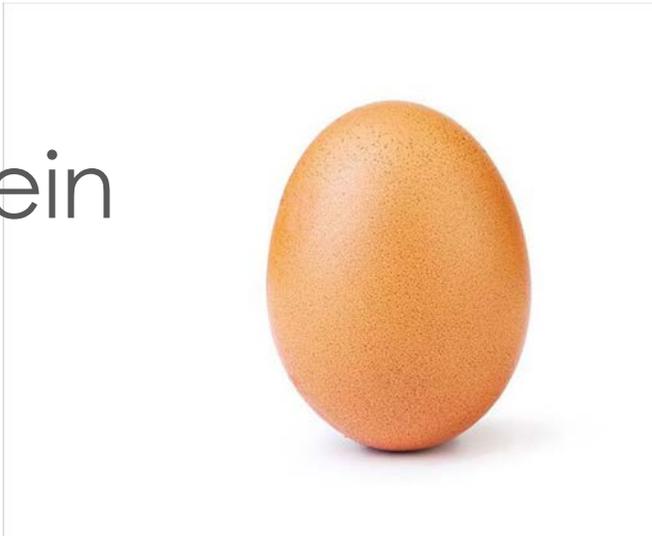
INCREASE FRUITS AND VEGETABLES

- Start with 1 serving at each meal (1/2 cup cooked, 1 cup raw)
- Aim for goal of 2 fruit servings and 3 veggie servings per day
- EAT WITH COLOR!!



NUTRITION RECOMMENDATIONS

Protein



| AGE | PROTEIN RECOMMENDATION |
|-------------|------------------------|
| 4-13 years | 0.95 grams/kg/day |
| 14-18 years | 0.85 grams/kg/day |
| 19 + years | 0.8 grams/kg/day |

- 1 egg = 6 grams
- 1 oz meat = 8-9 grams
- ½ c cottage cheese = 14 grams
- String cheese = 6 grams
- ½ c beans = 8-11 grams



NUTRITION RECOMMENDATIONS

Calcium and Vitamin D

- Should get between 1000-1300 depending on age
 - 8 oz milk = 244 mg calcium



NUTRITION RECOMMENDATIONS

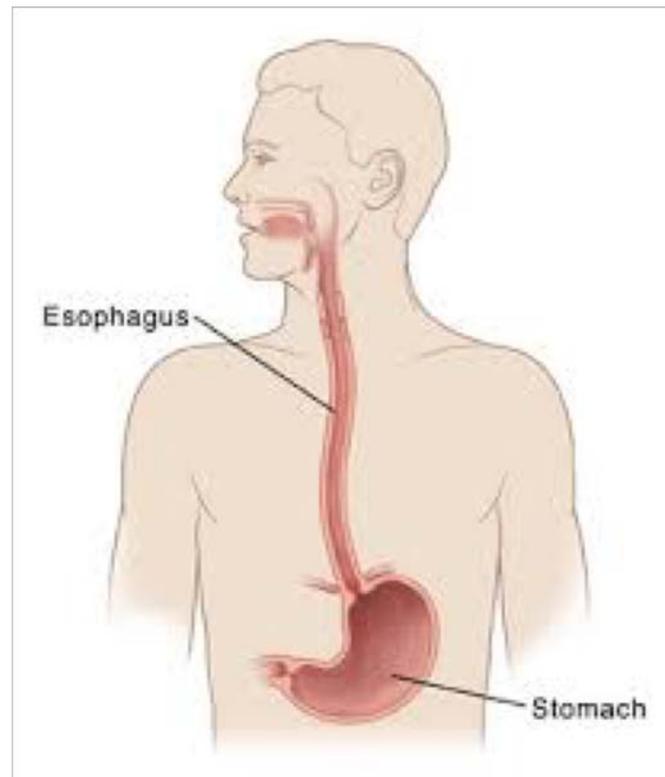
- Water and hydration
 - Management and treatment of constipation

| AGE | WATER (L) | WATER (C) |
|-------------|-----------|-----------|
| 4-8 years | 1.2 | 5 |
| 9-13 years | 1.8 | 7 |
| 14-18 years | 2.6 | 10 |
| 19+ | 3 | 12 |



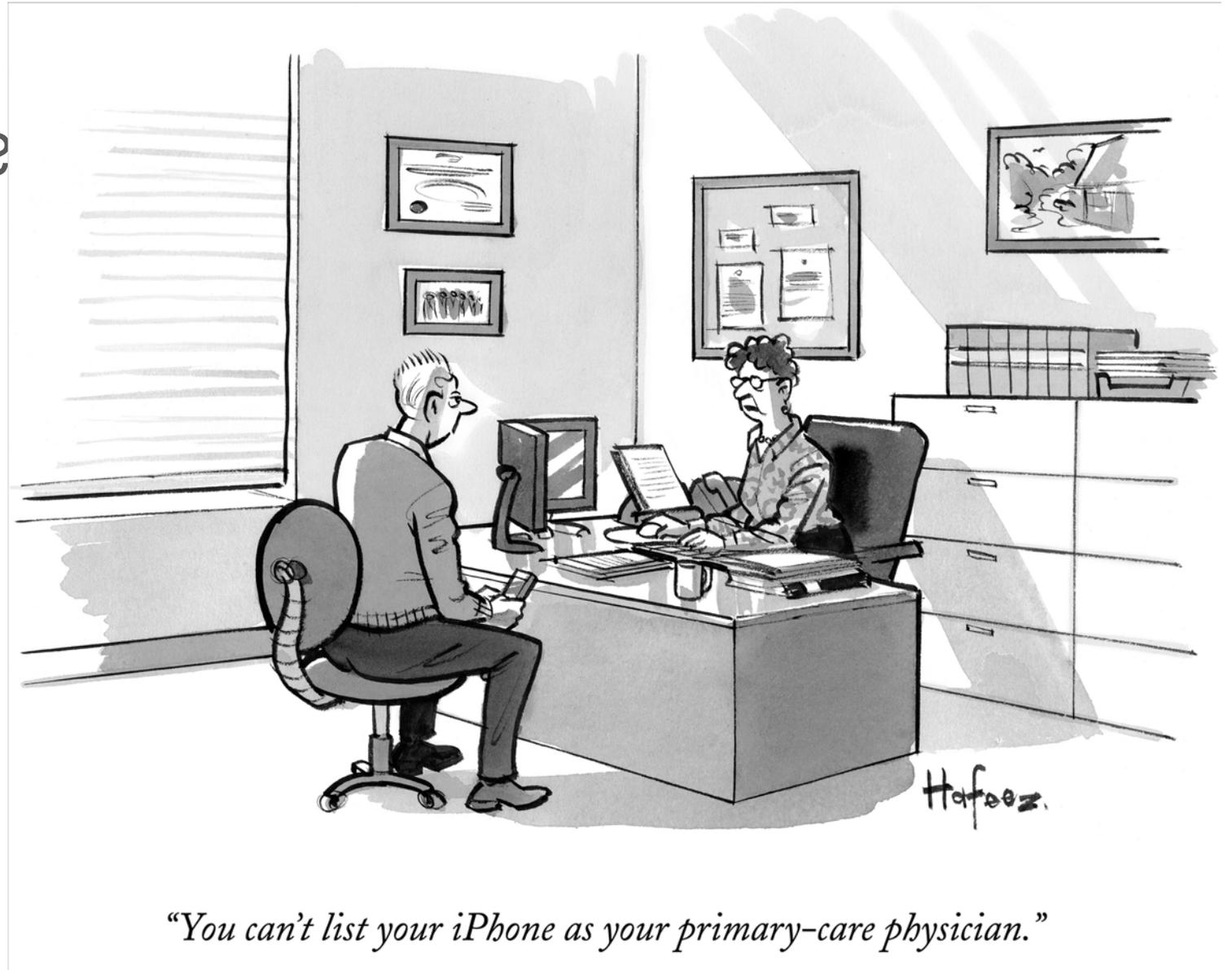
NUTRITION RECOMMENDATIONS

- Swallowing Considerations
- Discussing feeding tubes



THANK YOU!

- Questions?



REFERENCES

- Hankard R, et al. Resting energy expenditure and energy substrate utilization in children with Duchenne muscular dystrophy. *Pediatric Research*. 1996;40:29-33.
- Elliott SA, et al. Predicting resting energy expenditure in boys with Duchenne muscular dystrophy. *Eur J Paediatr Neurol*. 2012;16:631-635.
- Zanardi MC, et al. Body composition and energy expenditure in Duchenne muscular dystrophy. *Eur J Clin Nutr*. 2003;57:273-278.
- Birnkrant DJ, et al. Diagnosis and management of Duchenne muscular dystrophy, part 1: diagnosis, and neuromuscular, rehabilitation, endocrine, and gastrointestinal and nutritional management. *Lancet Neurology*. 2018;18:30024-30027.
- www.parentprojectmd.org
- www.choosemyplate.org
- www.eatright.org

