

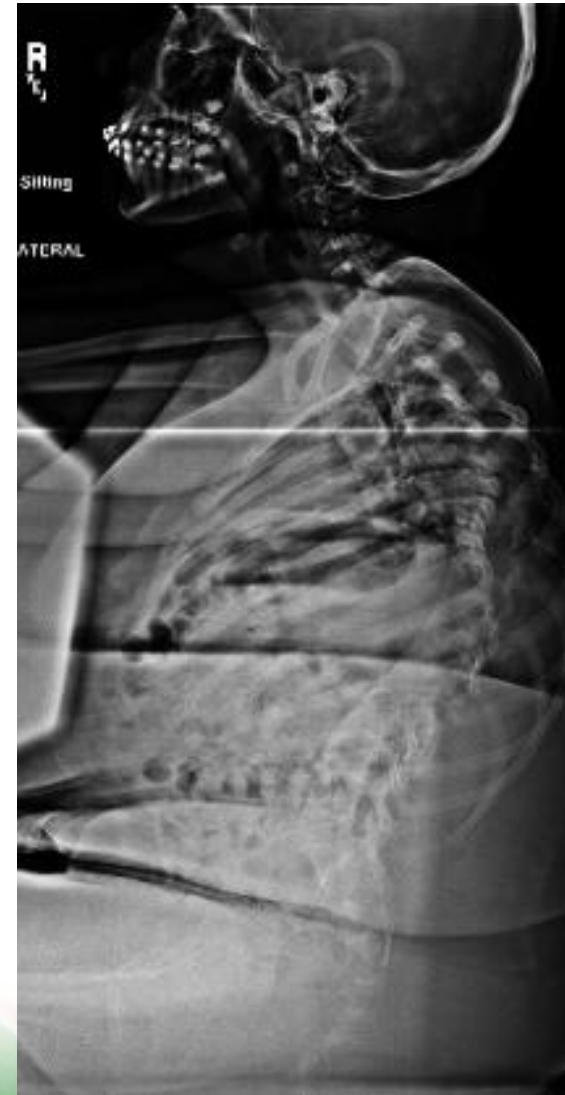
Management of the Fluffy EOS patient



UTSouthwestern
Medical Center

Amy L. McIntosh MD

9 y.o male





Medical History

- Mini multicore myopathy
- Cardiac myopathy assoc w/ known disease – atenolol
- BMI % ile: *97% ile for age*
- Lactose intolerant
- Has had pneumonia in the past
- GERD
- bowel and bladder continence



Neuromuscular Syndromic Pathway/ EOS pathway

- **NSP Clinic:**
 - Anesthesia → OKA but needs new ECHO, risk for malignant hyperthermia/ rhabdomyolysis
 - Neurology → no treatment option for his myopathy
 - Developmental Peds
 - Pulmonology → needs PFTS, baseline ABG, and overnight oximetry trend
 - Nutrition → baseline labs
 - PT/OT
 - Psych
 - Social Services

Nutritional Labs

- CBC w/ diff
- Albumin
- Pre-albumin
- PT/PTT/INR, PFA
- CMP
- Ferritin/ TIBC
- Ca
- Vit D
- B 12
- Zinc
- Mg

Lab Results

- Vitamin D: 10 → 50,000 IU weekly
- Pre albumin: nl
- Albumin: nl
- Basline ABG: CO₂: 45
- PFT's : 19 % predicted
- Overnight oximetry: Many significant desats → started on BIPAP 12/4

Obesity as a risk factor for infection??

Overweight and Obese Pediatric Patients Have an Increased Risk of Developing a Surgical Site Infection

Brian P. Blackwood^{1,3} Colin D. Gause¹ Jamie C. Harris³ Christina M. Theodorou²
Irene Helenowski⁴ Timothy B. Lautz¹ Julia Grabowski¹ and Catherine J. Hunter^{1,2}



Obesity and risk for SSI??

Obese patients at greater risk for infection after adolescent idiopathic scoliosis correction

Newton PO, et al. *J Bone Joint Surg Am.* 2017;doi:10.2106/JBJS.16.01442.

December 10, 2017

 ADD TOPIC TO EMAIL ALERTS

Patients who underwent posterior spinal fusion for the correction of adolescent idiopathic scoliosis and were obese had a greater risk for postoperative infection, according to results published in *The Journal of Bone and Joint Surgery*.



Peter O. Newton

Peter O. Newton, MD, and colleagues compared patients who presented with [infection](#) 90 days after posterior spinal fusion for the treatment of [adolescent idiopathic scoliosis](#) to a group of patients without an infection. Patients were compared with regard to age, gender, BMI percentile for age, Lenke classification of curve type, primary curve magnitude and estimated 3-D sagittal kyphosis.

Obesity as a risk factor for

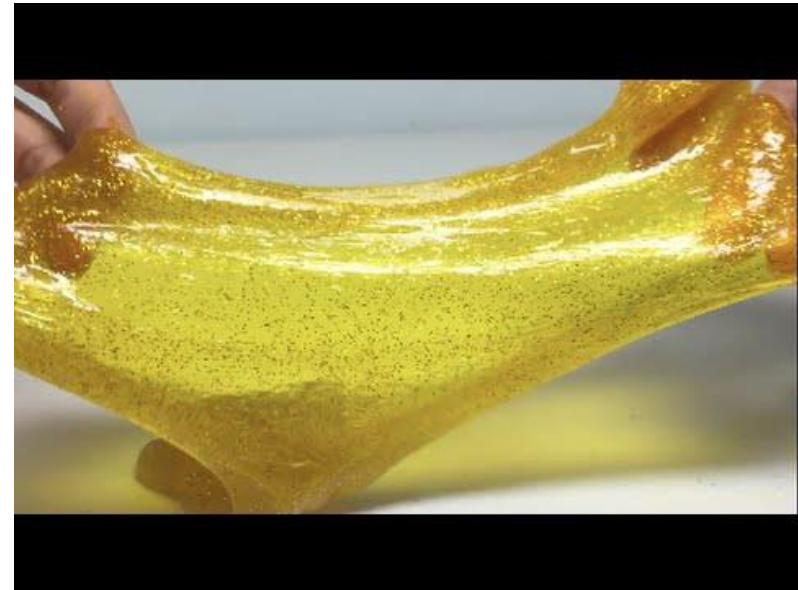
for SSI **SSI??**

Variables	Input Values
Cerebral Palsy	No ▼
Spina Bifida	No ▼
Spinal Muscular Atrophy	No ▼
Behavioral Disorder	No ▼
Urine Incontinence	No ▼
Pulmonary Comorbidity	Yes ▼
Cobb Angle > 90 degrees	Yes ▼
Age < 12	Yes ▼
Probability of SSI	11.91%

- BMI is not part of this risk calculator

“Yellow Jello doesn’t heal”

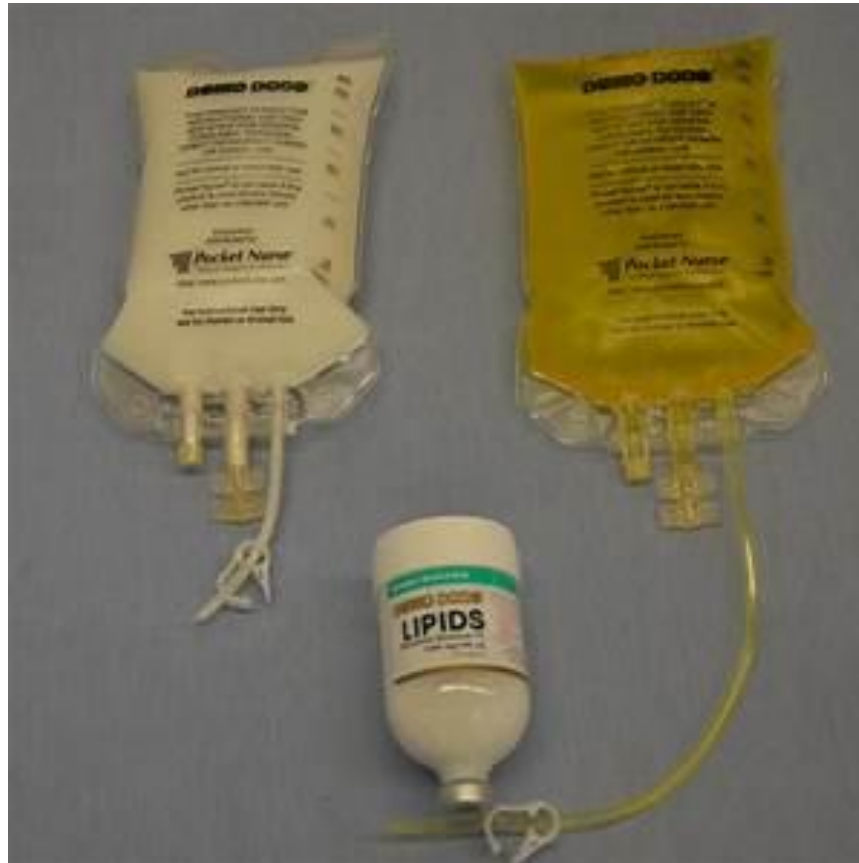
- TSRH –ism
- Nonabsorbable skin closure
- Incisional wound vac
- Stimulan with (vanco 1000mg and tobra 240 mg)



Required continuous BIPAP x 3 days



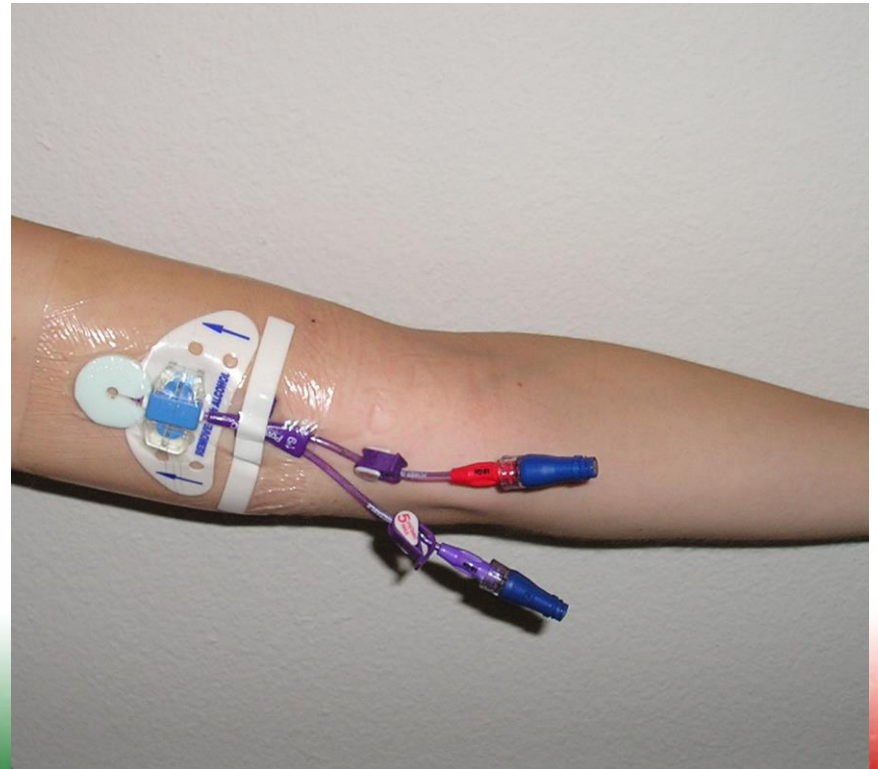
TPN??? In a fat Kid??



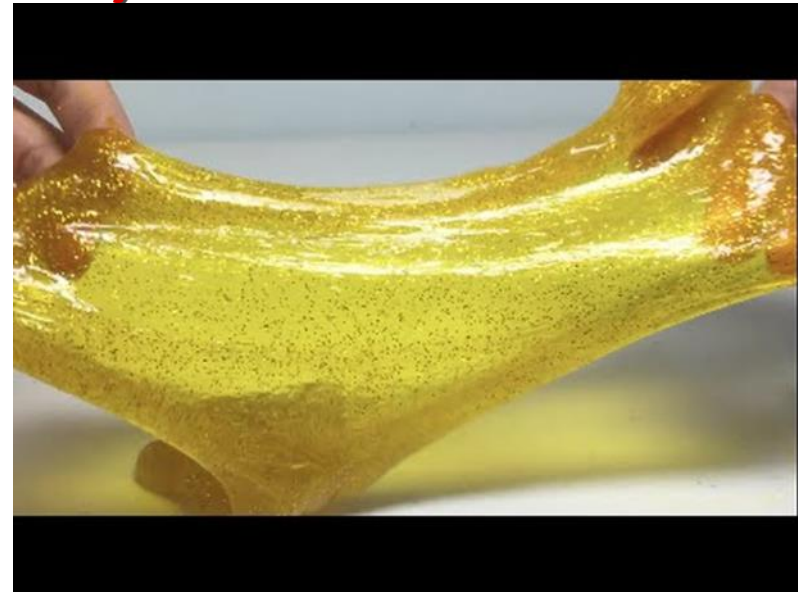
Current nutrition recs from Cure SMA

Once your child has been taken to the recovery room, peripheral parenteral nutrition (PPN) can be started through the I.V.. The intravenous solution used will include dextrose 10-15%, 1.5 gms/kg amino acids per 24 hour period and standard vitamins, minerals and electrolytes. This will

provide a source of sugar and amino acids to help maintain your child's energy level and keep blood sugar levels stable. If oral intake is restricted for more than 48 hours, the dietician may recommend adding a 10% intralipid infusion. However, since SMA patients have a secondary defect in fatty acid oxidation, total fat from all sources should not exceed 15-20% of total calories (all intralipid infusions available in the U.S. currently contain long-chain fatty acids). Peripheral parenteral nutrition (PPN) will need to be ordered in advance the morning of the procedure in order to be ready during the post-operative period. Most pharmacies require several hours notice to prepare these solutions. Total peripheral nutrition, or TPN, requires a larger IV, and allows even more sugar and fat to be administered to help boost calories. However, this is usually not necessary in an uncomplicated peri-operative setting.



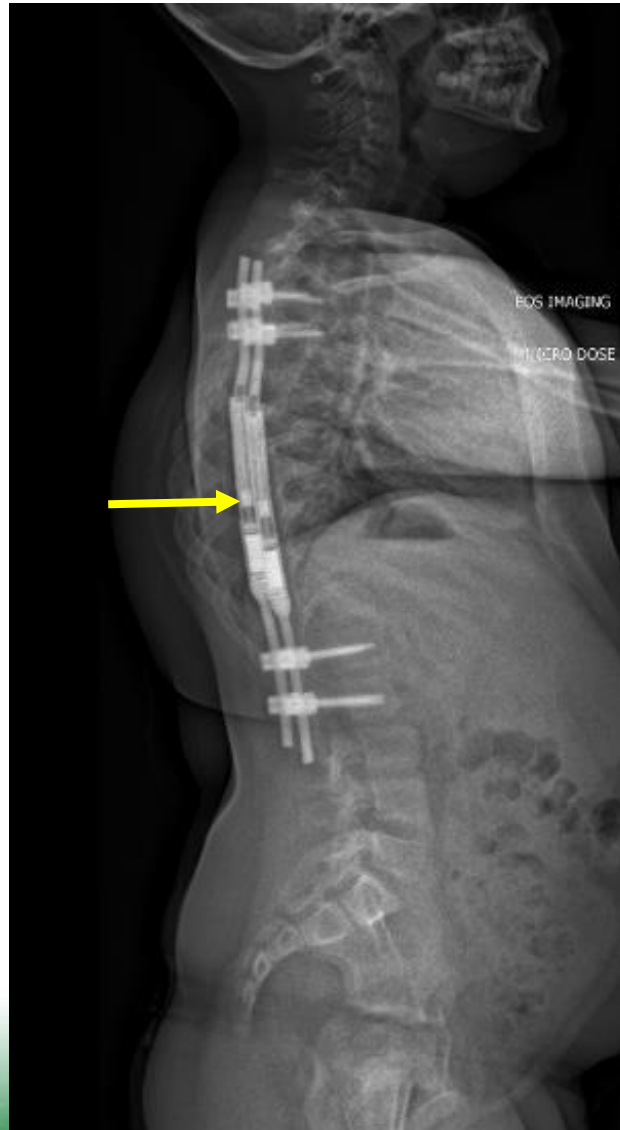
JIS, Jehovah's witness, BMI 34.8



JIS, MAGEC

- BMI = 28.1 (98 % ile)
- Juvenile Idiopathic Scoliosis
- Lengthening schedule every 3 months
- Drive growth (schedule)
- Never got a clunk





12 months later



Super ERC for “fluffy” kids



External Remote Controller (ERC)

Take Home Points

- In EOS patients: Obesity to more likely to be related to underlying disease (Prader-Willie, DMD, congenital myopathy)
- Inter-disciplinary Pre-op Medical Optimization
- Check nutrition labs (including Vit D, Ferritin, Mg, Ca, B12)
- Prolonged need for continuous non-invasive ventilation post-op → consider need for PPN/TPN
- Yellow Jell-o Does NOT heal!! Non-absorbable suture
- Fluffy ERC MAGEC lengthenings

Thank You!

UTSouthwestern
Medical Center

T E X A S
SCOTTISH RITE HOSPITAL

®