“Pediatric Aero-Digestive Disorders in the New Century”

A Valley-Mount Sinai Kravis Children's Hospital educational symposium.

Valley Health System

Mount Sinai

CHILDREN’S HEALTH

My Kid Snores; who can rescue me?

For the World Lightweight Snoring Cure Championship Title


UFC
FIGHT NIGHT
CHAMP VS CHAMP
WORLD FLYWEIGHT CHAMPIONSHIP
Sleepytime
VS
Turbinator

Rules of Combat

- NO BITING
- NO SCRATCHING
- NO HITTING BELOW THE WAIST
- NO OUTRIGHT LIES

- NOT ALLOWED TO SAY “CALL GI FOR CONSULT”

Michael “the Turbinator”Rothschild, MD

FULL DISCLOSURE

Faculty Disclosure

- There are no commercial products or services being discussed
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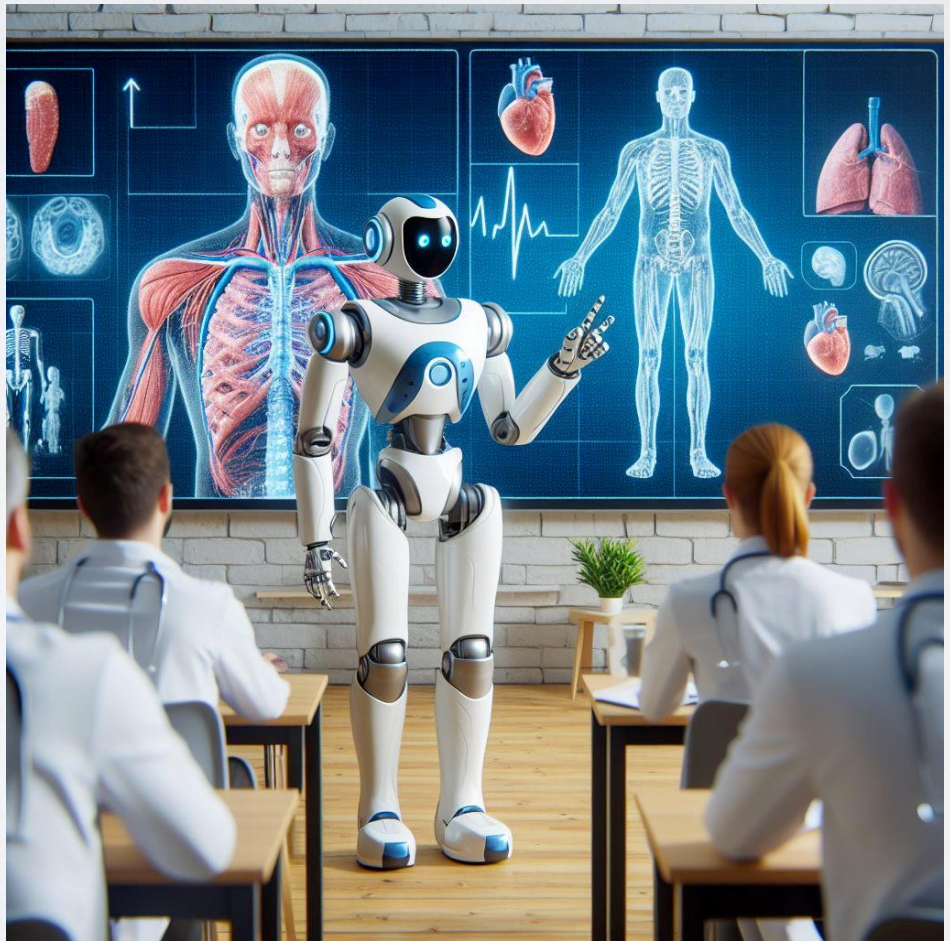
AHI=48

FLAWED PREMISE: ENT & PULMONOLOGY COMPETE FOR PATIENTS IN AN ADVERSARIAL, ZERO SUM GAME

TRUTH: SURGEONS AND MEDICAL SPECIALISTS WORKING TOGETHER OPTIMIZES PATIENT CARE

TRUTH: ARTIFICIAL INTELLIGENCE IS VERY HELPFUL IN MAKING IMAGES FOR LECTURES



DIAGNOSIS OF SLEEP DISORDERED BREATHING

- Otolaryngology
  - ENT exam identifies anatomical site of obstruction
  - Differentiate fixed and dynamic pathology
- Pulmonology
  - PSG quantifies SDB / OSA / other (non-obstructive) sleep pathology
  - Especially important in complex cases with multifactorial etiology requiring serial interventions
- Complementary information

DIAGNOSIS BY TEAM OTOLARYNGOLOGY

- History (description, seasonality, URI association, daytime sx)
- PE (tonsil size, mandible, midface, palate, posterior pharnyx)
- Office endoscopy (nasal obstruction, tongue base prolapse)
- Sleep video, home sleep study (SNAP or WatchPAT), lab PSG
- Drug induced sleep endoscopy (DISE)

DRUG INDUCED SLEEP ENDOSCOPY (DISE)

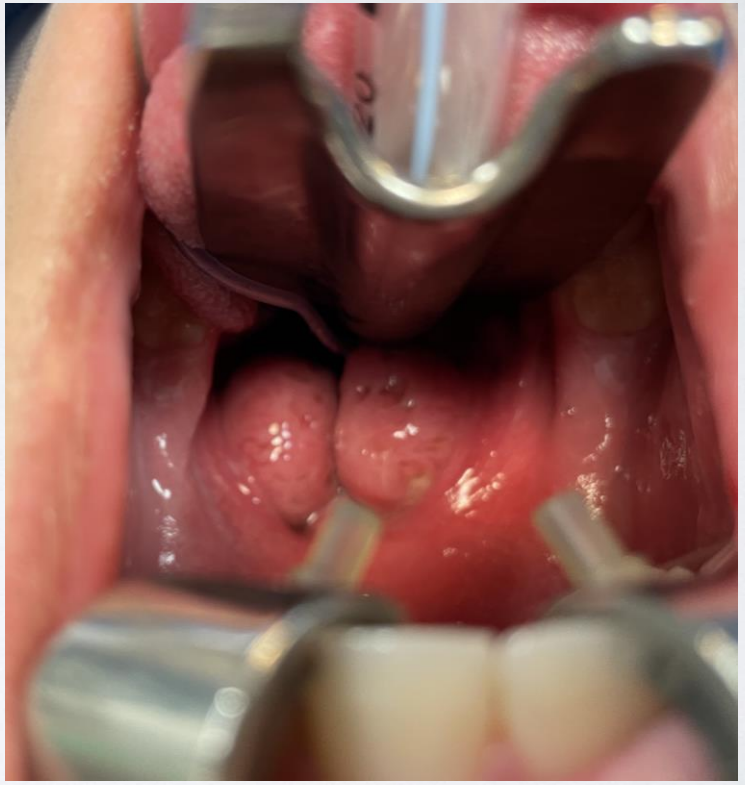
- Simulates the hypotonia of the natural sleep state
- Documents anatomic site of dynamic obstruction
- Maneuvers (e.g. Esmarch) to observe effect on airway
- Primarily N2 sleep, does not model REM sleep
- Indications: CPAP failures, patients refusing CPAP / MAD, surgical planning

TREATMENT BY TEAM OTOLARYNGOLOGY

- Medically optimize nasal airway
  - Nasal steroids: OTC and safe, but limited effect, hard for young children to use effectively.
  - Antihistamines (oral and topical): May help with allergic patients, some excitation and drying of mucosa
  - Singulair: FDA approved down to 6 months, be aware of side effects and discuss with parents
  - Nasal irrigaiton: safe, cheap and works

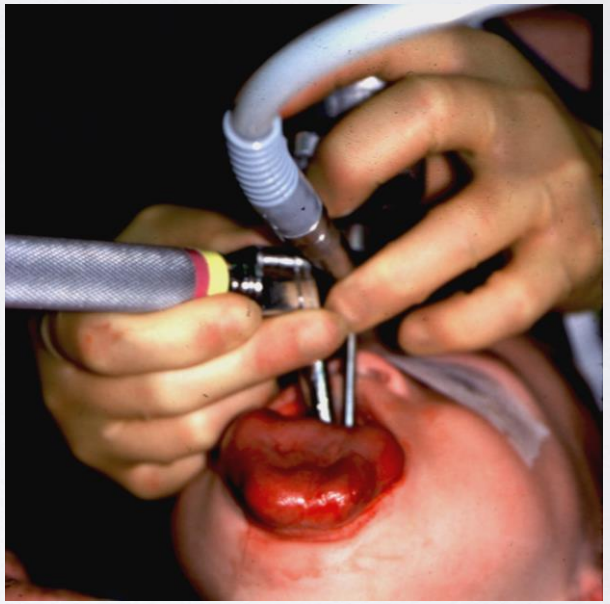
TREATMENT BY TEAM OTOLARYNGOLOGY

- Adenotonsillectomy
  - 80% “cure rate”, but data inconsistent due to variations in inclusion criteria and outcome metrics
  - Little long term risks, significant short term morbidity
  - Works by enlarging airflow path but ALSO by stiffening lateral walls resisting cyclic collapse - explains efficacy in hypotonic children with smaller tonsils (e.g. Down syndrome)



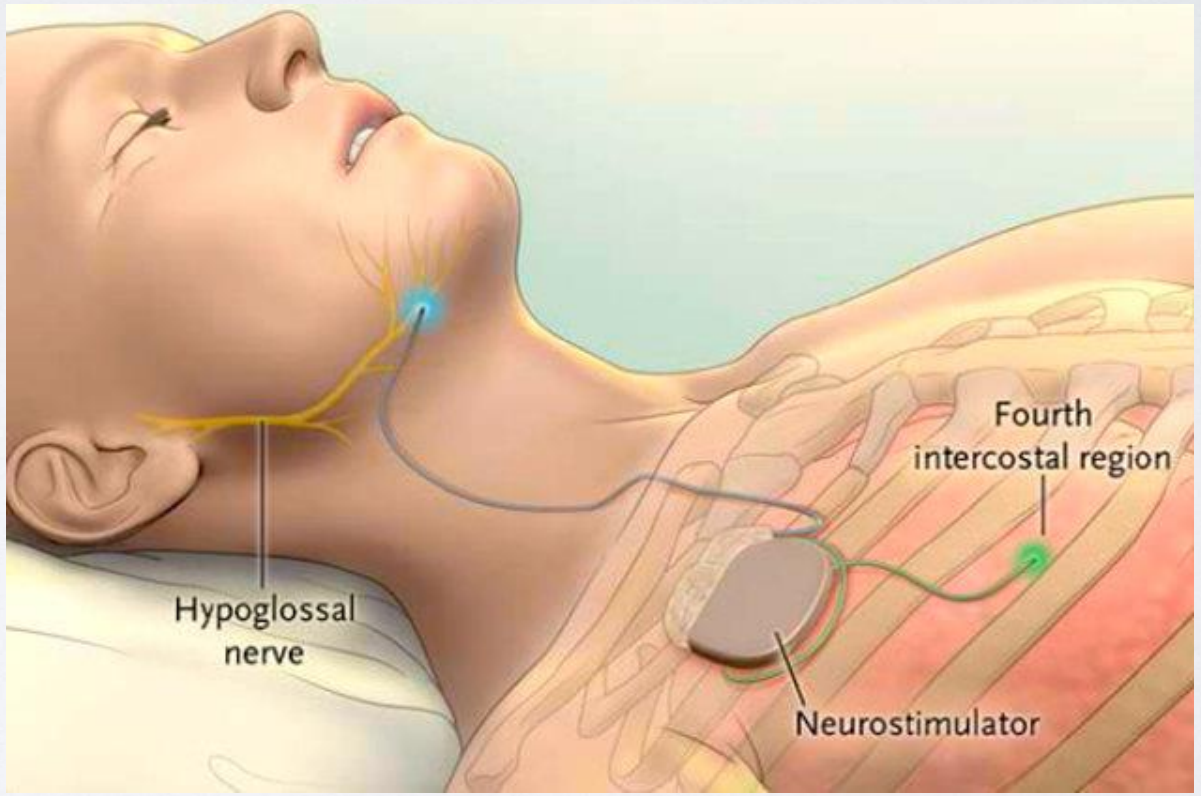
TREATMENT BY TEAM OTOLARYNGOLOGY

- Other surgery
  - Nasal surgery mainly in older children or adults (septoplasty, turbinate reduction)
  - Many options in past, most have fallen out of favor due to complications and questions about efficacy (UPPP, palate implants, etc..)
  - Some syndromic children may require aggressive surgery (mandibular advancement or tongue reduction)



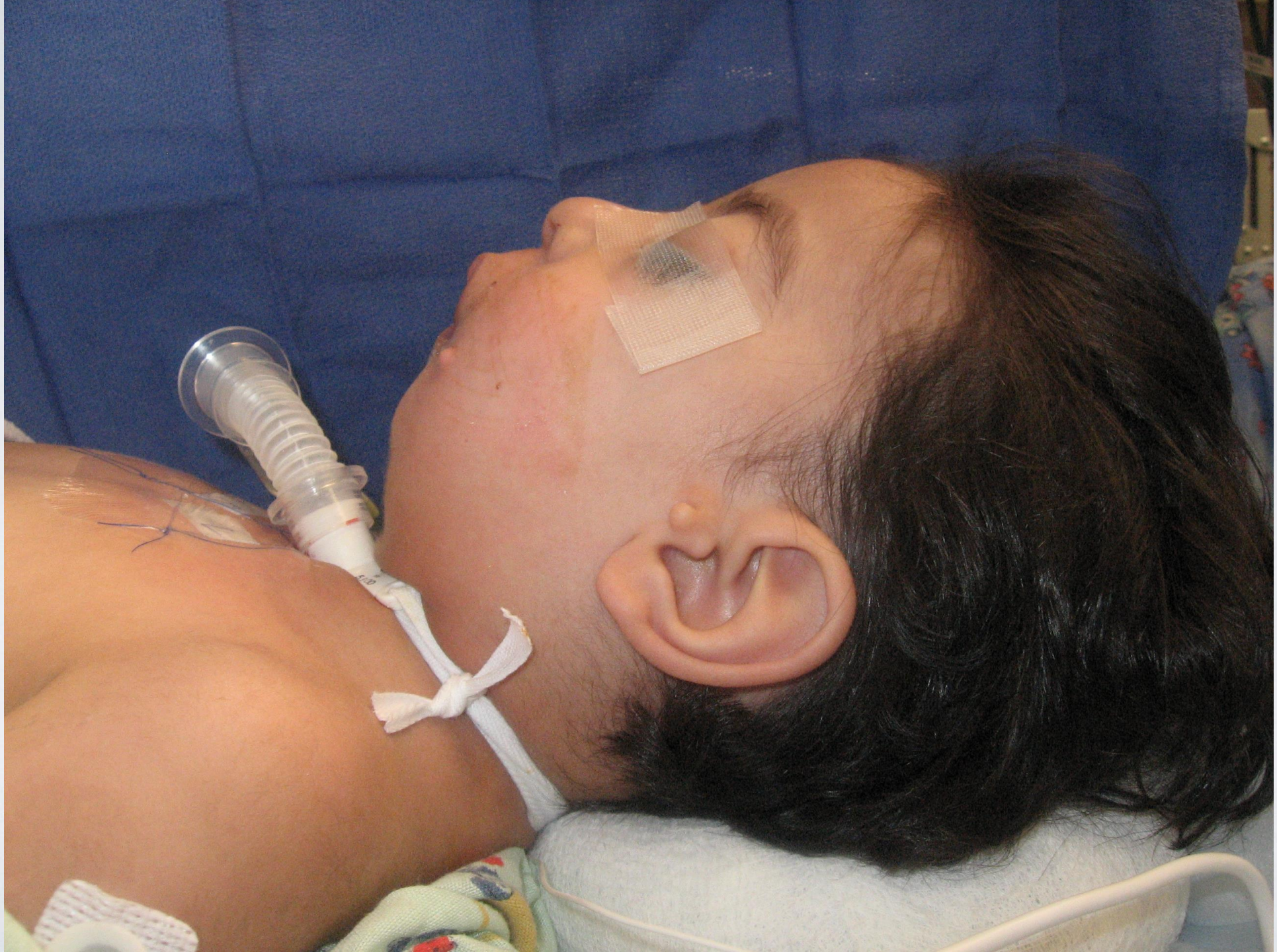
TREATMENT BY TEAM OTOLARYNGOLOGY

- Inspire device
  - Currently approved over age 18
  - Approved down to age 13 for Down syndrome patients with severe OSA who failed T&A and CPAP



WHY CHOOSE TEAM OTOLARYNGOLOGY?

- Identify site(s) of obstruction, dynamic or fixed
- Surgical management has 100% compliance
- CPAP & MAD compliance can be limited in children
- Stepped approach can help increasingly complex patients, up to100% cure rate for even the worst cases of OSA.



My child snores. Who can help me? The Sleep Medicine Man Can

Lewis “Sleepytime” Kass MD

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Show me the data

Sleep studies offer objective data

- Not just the apnea hypopnea index
- SaO_2, $ETCO_2$, REM %, Leg kicks, snoring, HR, RR, arousals
- Standardized
- Gold standard for close to 40 years

Presence and severity

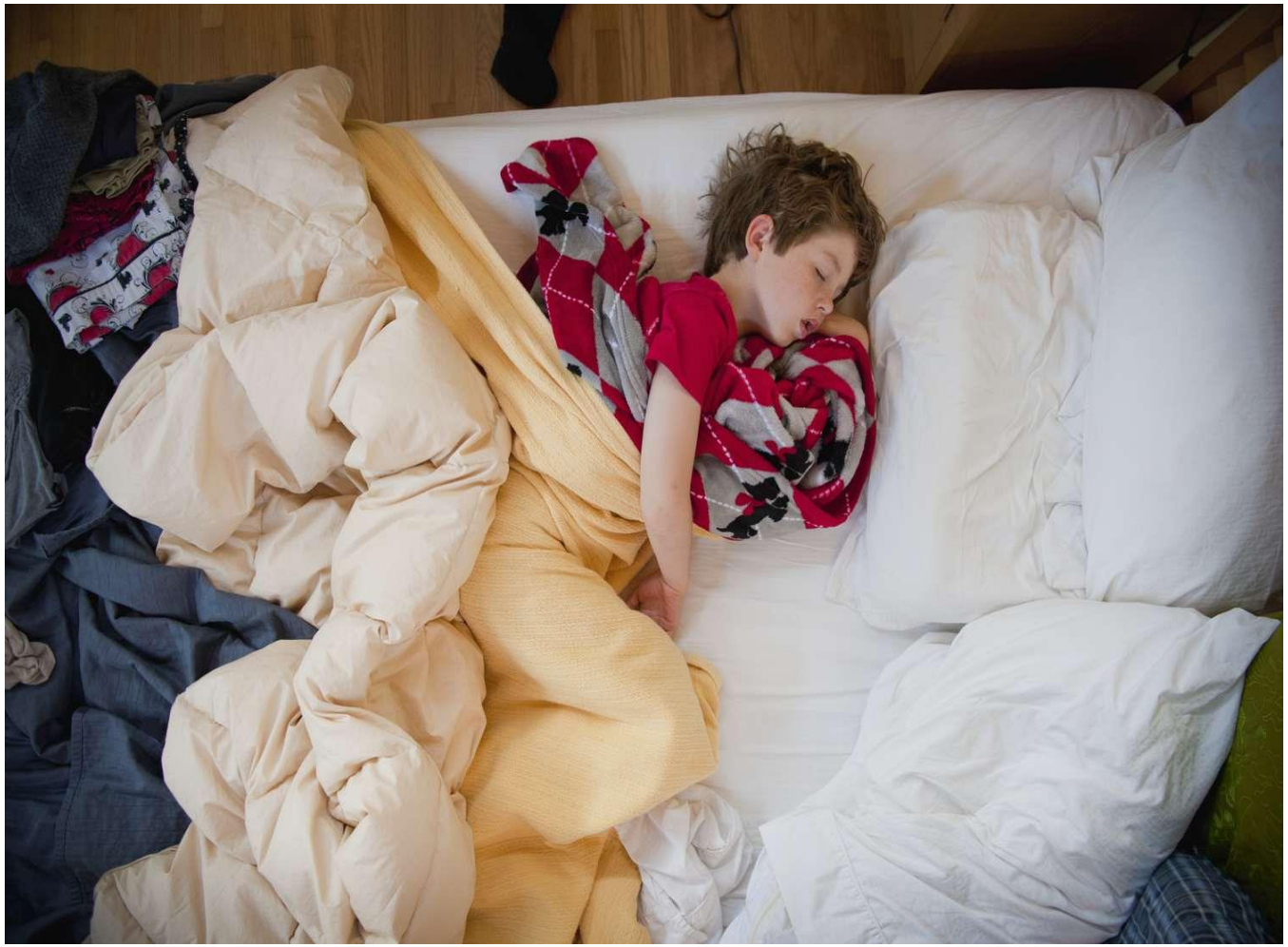
- Can help guide the where and when of surgery

I can help too (CPAP)

- 10% of kids need CPAP
- Often just until they grow more
- Non-surgical option

There’s more (other diagnoses)

- Restless legs syndrome
- Narcolepsy
- Asthma
- GERD
- Seizures
- arrythmias



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