

# Case Scenario

9<sup>th</sup> Annual Connecticut Pediatric  
Otolaryngology Symposium

Nasal Trauma That Just  
Can't Wait!!

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# “Wrestling with Brother”

- 7y/o boy presents s/p injury to his nose 10 days ago
- Occurred while wrestling with brother- ran into wall with direct impact to midface. No LOC
- Immediate dorsal nose swelling and nasal bleeding



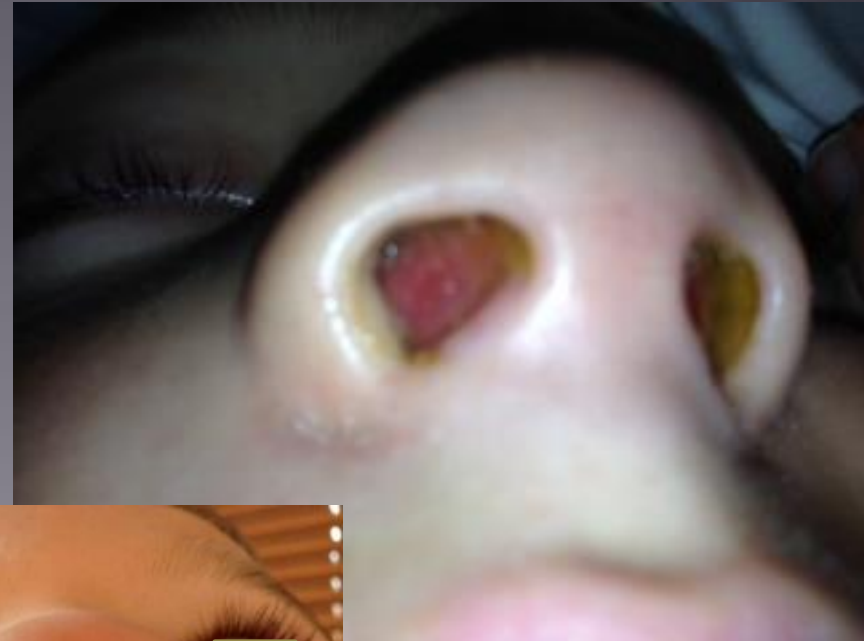
# Series of events

- **Day of injury-** parent called pcp- ice, pain relievers
- **Day 3:** PCP visit- slow trickle of bleeding, significant nasal obstruction, difficult nasal breathing.  
RX: Cefdinir for “sinus infection”
- **Day 5 & 7-** Mother called pcp office secondary to ongoing nasal bleeding, increasing swelling, pain, difficulty breathing through nose.
- **Day 7 –** Not seen, PCP referred to ENT

# ENT Referral

- Nature of injury reviewed- **Now 10d ago**
- Mother states concerned about breathing, ongoing bleeding from nares, pain
- PSH/PMH reviewed- T&A, BMT 4y ago
  - No prior hx nasal trauma/deformity
  - No Chronic Health conditions

# Physical Exam

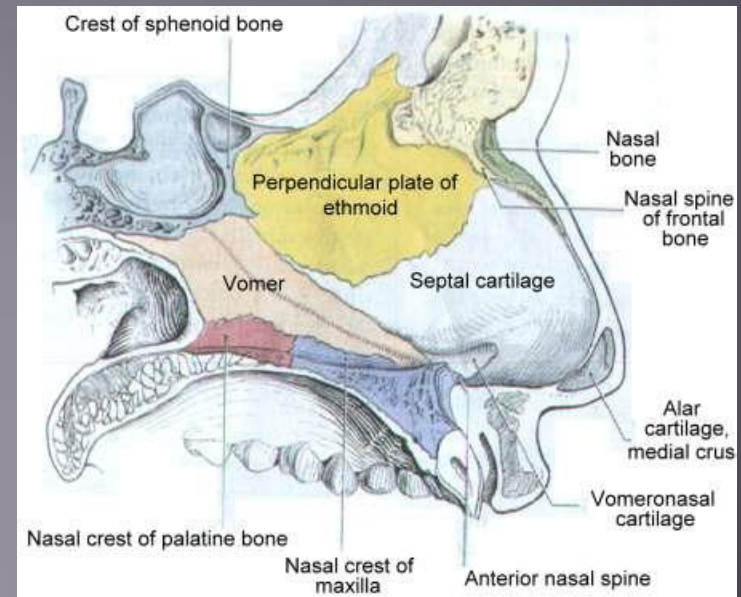
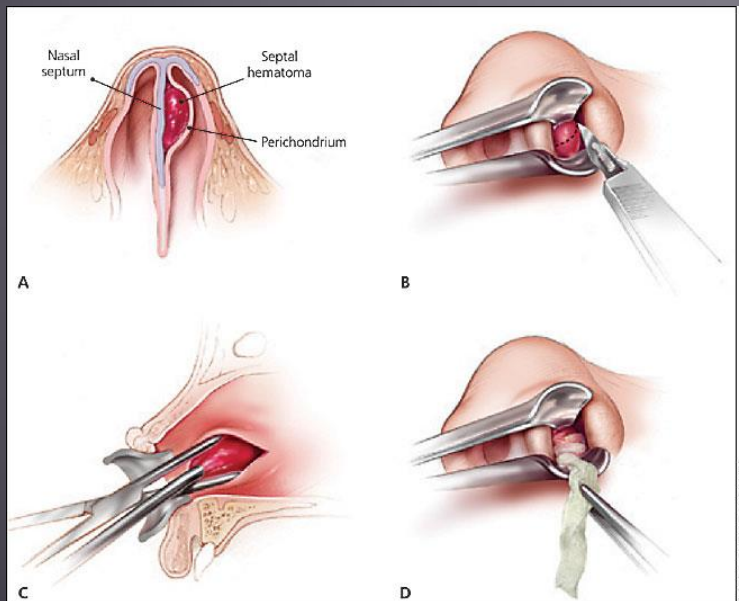


# Physical Exam

- Ear exam: Bilateral EAC, TM Clear
- Nasal Exam: **Significant Dorsal Swelling of the nose**  
**Bilateral Septal Hematoma's**  
**No appreciable nasal airflow**
- Facial exam: No other noted facial fractures  
Cranial nerves intact
- Oral exam: Clear oropharynx, Normal palate,  
dentition intact

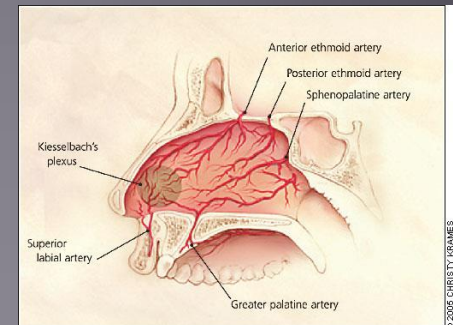
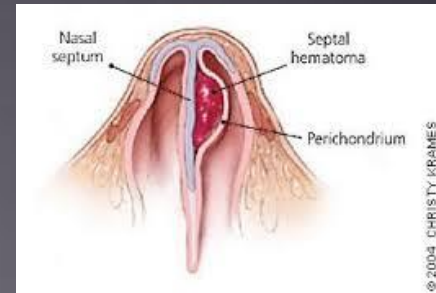
# Initial Operative Findings

- Hematoma and Abscess of nasal septum- Drained
- Septum severely eroded
- Silastic Stent placed to stabilize fractured nasal cartilage/septum & to support nasal projection



# Pathophysiology

- Submucousal vessels are torn as bucking forces tear perichondrium from cartilage
- Bacterial proliferation & abscess formation result from presence of stagnant flow of blood.
- Infection/abscess formation within 3d of trauma
- Adults- major trauma,  
**Kids- Minor trauma**





# Septal Hematomas

- May result from more minor trauma and without associated external nasal deformity.
- **Retrospective Study- 20 Children 2mo-15y**  
Canty PA, Berkowitz RG. Hematoma and abscess of the nasal septum in children. *Arch Otolaryngol Head Neck Surg*. Dec 1996;122(12):1373-6.

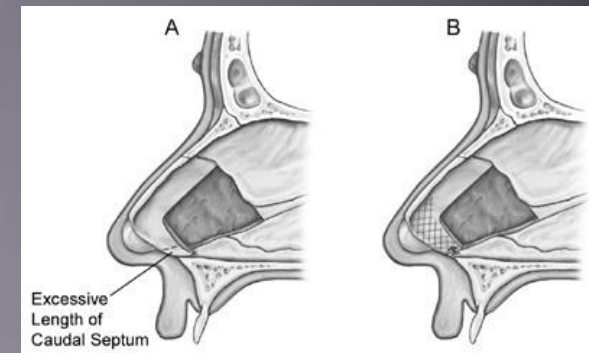
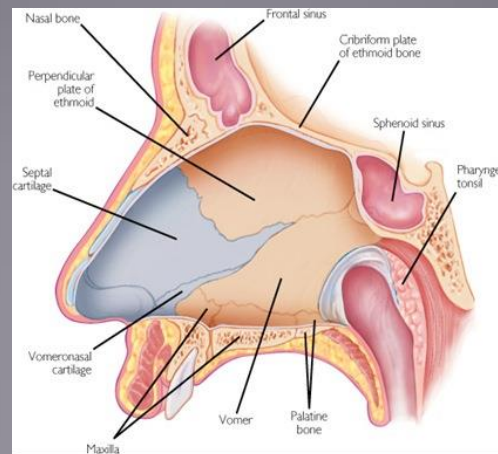
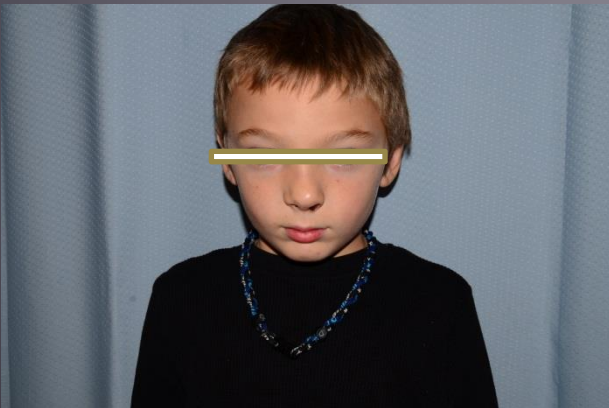
Most common symptoms noted in children were nasal obstruction (95%), pain (50%), rhinorrhea (25%), and fever(25%).

Nasal fracture in 3 patients

Symptoms usually appear within the first 24-72 hours

# Referral- Craniofacial/Plastics

- OR 10 days after I & D, 20d post injury
- Findings: Anterior aspect Caudal septum missing back to perpendicular plate, area debrided
- Resorbable plate fabricated to reconstruct caudal septum, secured with sutures



# Follow-up Craniofacial

## 6 weeks post injury

- Septum midline
- Dorsal tip of nose- 1mm loss of support



# Follow –up/Long term issues

- Will need series of revisions while he grows
- Will need revision of tip of nose temporarily
- Definite rhinoplasty when Teen or older
- Cosmetic outcome should ultimately be good
- Airway issues were resolved initially

- Example of  
Saddle nose deformity →



# Take home messages....

- Urgent ENT referral is essential!!
- Ongoing bleeding,oozing is abnormal
- **Increasing** Nasal Obstruction and swelling is unusual for standard nasal fractures
- Delay in diagnosis can lead to risk of severe infection, irreversible damage or destruction of nasal cartilage and permanent nasal deformities