TEMPORARY EPIPHYSIODESIS

- STAPLES
- SCREWS
- 8-PLATE
TASK AT HAND?

- TEMPORARY (REVERSIBLE) HEMI-EPIPHYSIODESIS

- SUITABLE FOR ALL AGES

- APPLICABLE TO ALL Dx
STAPLE(S)
THE IDEAL IMPLANT?

- EXTRAPERIOSTEAL
- EXTRAPHYSEAL
- FLEXIBLE
- EASE OF INSERTION / REMOVAL
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**DIFFERENT BIOLOGY?**

**MORE RAPID CORRECTION?**

**REBOUND LESS LIKELY?**
# PLATES?

- ONE PER PHYSIS

( FLEXIBILITY = STRENGTH )
TYPE OF SCREWS?

- 4.5 mm. CANNULATED
- > 20 mm. LENGTH
- SELF TAPPING
- FULLY THREADED
PLATE SIZES?

- TWO = 12 mm. OR 16 mm.
- NOT LOCKING (SCREWS SWIVEL)
- PRE-CONTROURED - LOW PROFILE
INDICATIONS:

- ANY ANGULAR DEFORMITY IN A GROWING CHILD / ADOLESCENT WHO WOULD OTHERWISE REQUIRE AN OSTEOTOMY
CONTRAINDICATIONS:

- CLOSED PHYSIS
- PHYSIOLOGIC DEFORMITIES
- SKELETAL MATURITY
APPLICATIONS : 8-PLATE

- ANY AGE / SIZE PATIENT
- ANY ACCESSIBLE PHYSIS
- > 6-12 MOS. GROWTH REMAINING
- ANY Dx - INCLUDING “SICK” PHYSIS
- FRONTAL / SAGITTAL / OBLIQUE PLANE
INSTRUMENTATION:

- (C-ARM)
- KEITH NEEDLE
- CANNULATED DRILL
- 1.6 mm. GUIDE PINS (2)
- CANNULATED SCREWDRIVER
LEARNING CURVE
IMPORTANT SAFETY TIPS

- RIGHT HARDWARE
- AVOID PHYSIC
- FOLLOWUP Q 3-4 MONTHS
14 mm. SHORT SCREWS MAY BACK OUT
STIFF PLATE
≠ CONTOUTRED
eight-PLATE TECHNIQUE

C-arm
eight-Plate TECHNIQUE

LOCALIZE PHYSIS
eight-Plate TECHNIQUE

2 CM. INCISION
eight-Plate TECHNIQUE

KEITH NEEDLE INTO PHYSIS
eight-Plate TECHNIQUE

INSERT 8 PLATE OVER NEEDLE
eight-Plate TECHNIQUE

CONFIRM /c FLUOROSCOPE
eight-Plate TECHNIQUE

INSERT GUIDE PINS / SCREWS
eight-Plate TECHNIQUE

( SCREWS DON’T HAVE TO BE PARALLEL )
eight-Plate TECHNIQUE

IMMEDIATE ROM / WEIGHT-BEARING
POSTOPERATIVE:

- IMMEDIATE MOBILIZATION
- CLINIC Q 3 MONTHS
- REMOVE PLATE WHEN AXIS NEUTRAL
- MONITOR UNTIL MATURITY
- REPEAT PRN
PREMATURE ARREST?

- NOT IF PERIOSTEUM SPARED
- MOST DEFORMITIES CORRECT IN LESS THAN 1 YEAR
- GROWTH RESUMES /p PLATE REMOVAL
REBOUND GROWTH?

- LESS LIKELY THAN /p STAPLING
- OBSERVE MECHANICAL AXIS...
- REMOVE PLATE WHEN NEUTRAL
- PERIODIC FOLLOWUP
CASE EXAMPLE
19 mo. FOCAL FEMORAL DYSPLASIA
SUPRACONDYLAR OSTEOTOMY

INTERNAL FIXATION
SPICA CAST - 6 WEEKS
ACUTE PAIN SERVICE
INPATIENT CARE 3 - 4 NIGHTS

HOME CARE / TIME OFF WORK / TRANSPORT ISSUES ETC
PHYSICAL THERAPY
FOLLOWUP RADIOGRAPHS
GUIDED GROWTH

LENGTH GAINED DESPITE PLATING...
DELAYED GRATIFICATION

HOW LONG WILL THIS TAKE?
10 / 04 = 6 mos. /p 8 - PLATE
2/05 /p 11 mos. (NOTE HOW SCREWS DIVERGE)
CONCLUSION: 8-PLATE

- A VERSATILE SOLUTION FOR ACHIEVING ANGULAR CORRECTION
- IS EASY TO INSERT / REMOVE
- PROPERLY EXECUTED, THE PHYSIS WILL CONTINUE TO GROW