



Newborn Male Circumcision

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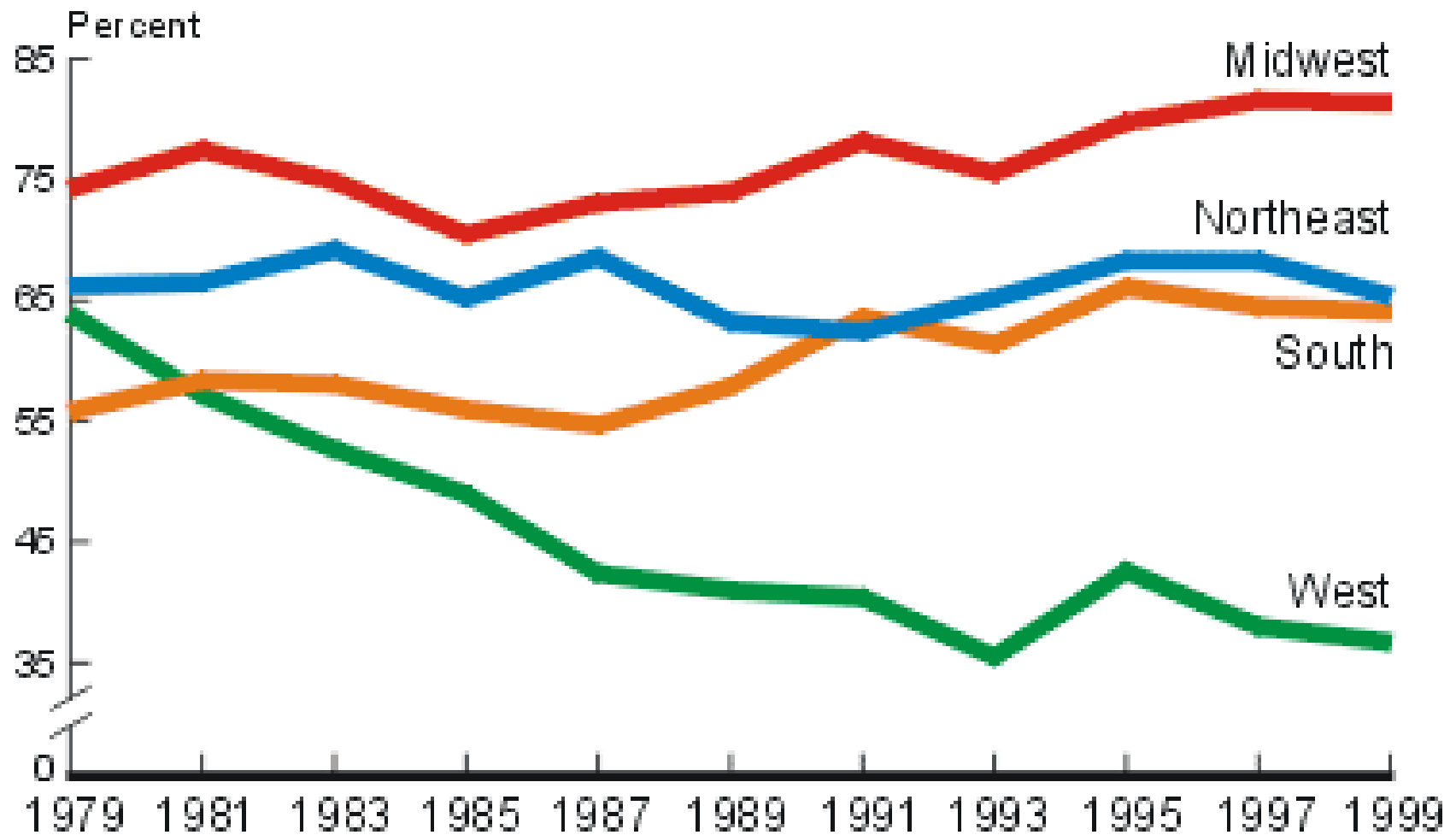
Montefiore Family Practice Residency



Overview

- ✦ Who
- ✦ Why/not
- ✦ How
- ✦ Common problems

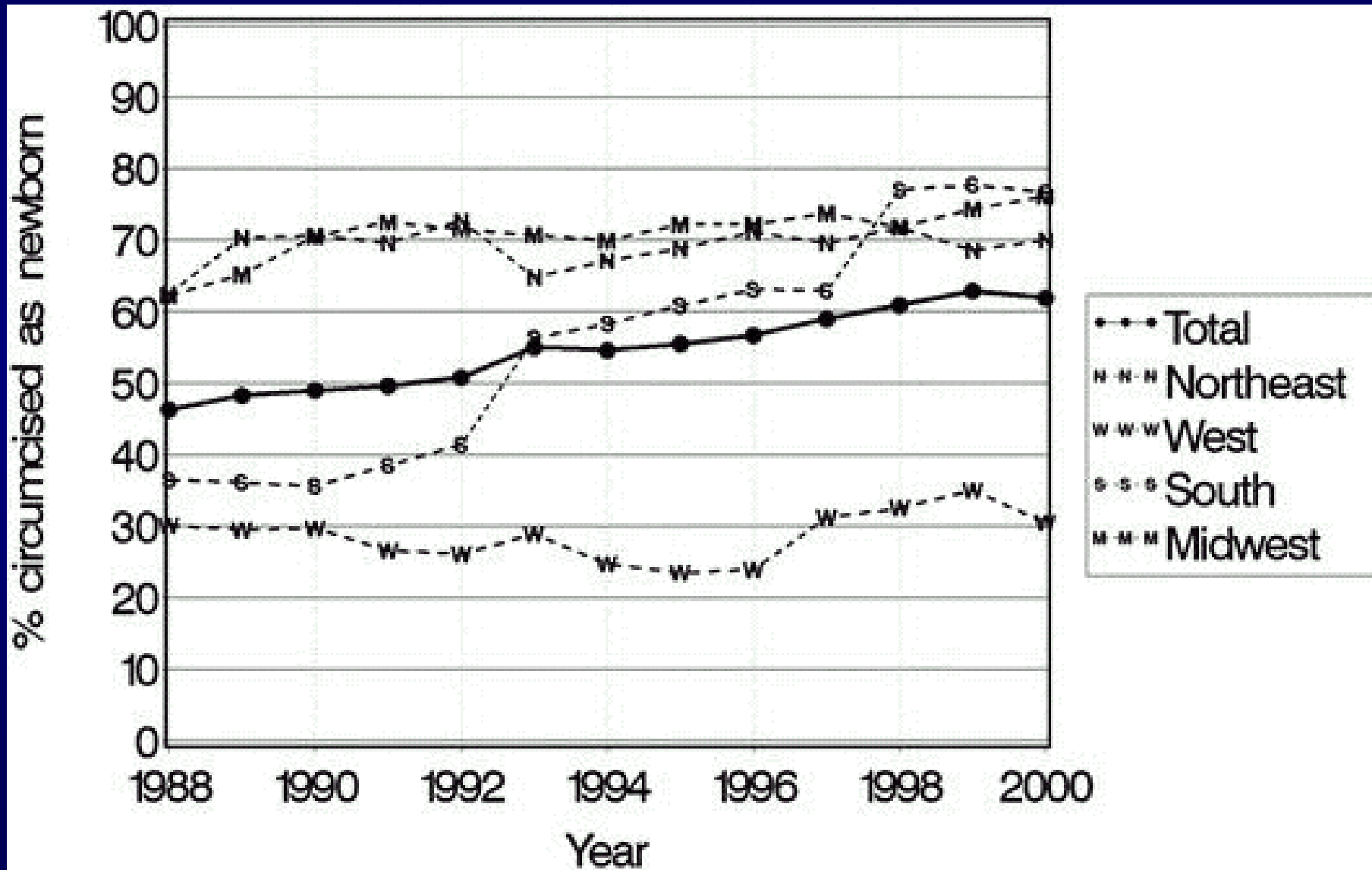
Figure 2. Percent of newborn males with circumcisions performed in short-stay hospitals by region



SOURCE: CDC/NCHS, National Hospital Discharge Survey, 1979-99.

Annual incidence of circumcision among newborn males in the the United States, 1988 – 2000

Source: CDC, National Inpatient Sample



Who Performs Circumcisions

- ✦ 70% of Obstetricians
- ✦ 60% of Family Physicians
- ✦ 35% of Pediatricians

Why?¹

★ Tribal Rite

- Originated in Egypt 15,000 yrs ago?
- Developed independently in multiple civilizations
 - Native American circumcision

● Today

- Belonging to a group
- “Look like dad”
- Strong religious connotations

Why?

✦ Judaism, Islam and Christianity

"This is My covenant that you shall observe between Me and you and your children after you, to circumcise your every male. You shall circumcise the flesh of your foreskin, and it shall become the sign of a covenant between Me and you" (Genesis 17:10-11).

Benefits

- ✦ Group membership
- ✦ Prevent need for adult circumcision
- ✦ Cancer
- ✦ Infection

Cancer²

☀️ Penis

- Rare in US
- NNT = 600+

☀️ Cervix

- No clear association

STDs²

- ✦ Does the foreskin harbor disease?
 - ✦ Possibly syphilis, chancroid, HSV
 - ✦ Possibly HIV
 - ✦ NNT = 10 - 20

UTI²

- ✦ Neonatal UTI occurs mainly in uncircumcised males
- ✦ NNT = 90 - 190

Contraindications²

- ✱ Younger than 12 –24 hours of age
- ✱ Family history of bleeding disorders
- ✱ Penile abnormality
 - ✱ Hypospadias
 - ✱ Epispadias
 - ✱ Megaurethra
 - ✱ Abnormally short penile shaft
- ✱ Sick or premature



Anesthesia?

“Less than half of US doctors administer anesthesia when circumcising infant boys, researchers say, despite growing evidence that the pain induced by the procedure can produce long-term emotional harm.”

Rueters, 2004

Anesthesia Use

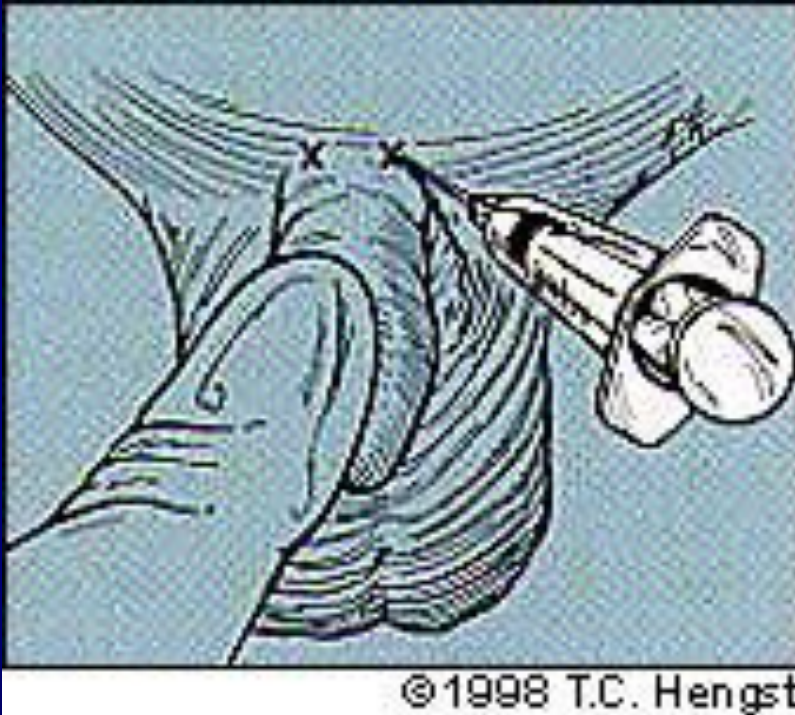
- ✦ Obstetricians (25%)
- ✦ Family physicians (56%)
- ✦ Pediatricians (71%).

Stange et al, 1998

Anesthesia

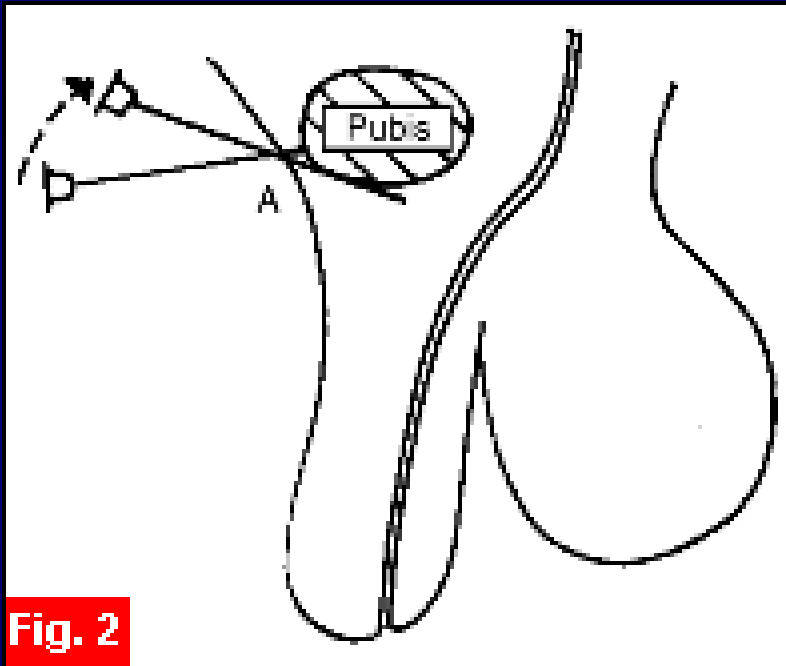
- ✦ Dorsal Penile Nerve Block
- ✦ Ring Block
- ✦ EMLA Cream

Dorsal Penile Block



- ✦ 85% of MDs
- ✦ Method
 - ✦ 1% lidocaine
 - ✦ .8 ml total
 - ✦ SC @ base of penis
- ✦ 25 seconds to perform
- ✦ 5 minute wait

Ring Block^{4,5}



- ☀ Method
 - ☀ 1% lidocaine
 - ☀ .8 ml total
 - ☀ SC midshaft circumferentially
- ☀ 48 seconds to perform
- ☀ 5 minute wait

EMLA Cream

- ✦ A eutectic mixture of local anesthetics
 - ✦ 2.5% lidocaine and 2.5% prilocaine in an oil-in-water emulsion
- ✦ Method
 - ✦ Apply to base and lower half of penis under occlusive dressing
 - ✦ Wait
- ✦ Risk: Methemoglobinemia
 - ✦ Limit use to 1 gram

Anesthesia Comparison⁷

★ Examined heart rate, cry and methemoglobin levels in 52 infants undergoing newborn circumcision comparing

- EMLA
- DPNB
- Ring block
- Placebo

★ 3 hypotheses

Anesthesia Hypothesis I

- ★ Newborns receiving placebo will have greater distress during and following circumcision than newborns receiving EMLA, dorsal penile nerve block, or ring block.

- ★ TRUE

- ★ HR increase greatest for placebo
- ★ Crying longest for placebo

Anesthesia Hypothesis II

- ✦ Application of a topical agent will cause less distress among newborns than infiltration of anesthetic for dorsal penile nerve block or ring block.
- ✦ TRUE
 - ✦ HR increase during drug administration
Ring>DPNB>EMLA
 - ✦ Crying 92sec after injection vs 63 sec after cream

Anesthesia Hypothesis III

- ✦ Distress caused by an unanesthetized circumcision will be greater than that caused by infiltration of the anesthetic.

- ✦ TRUE

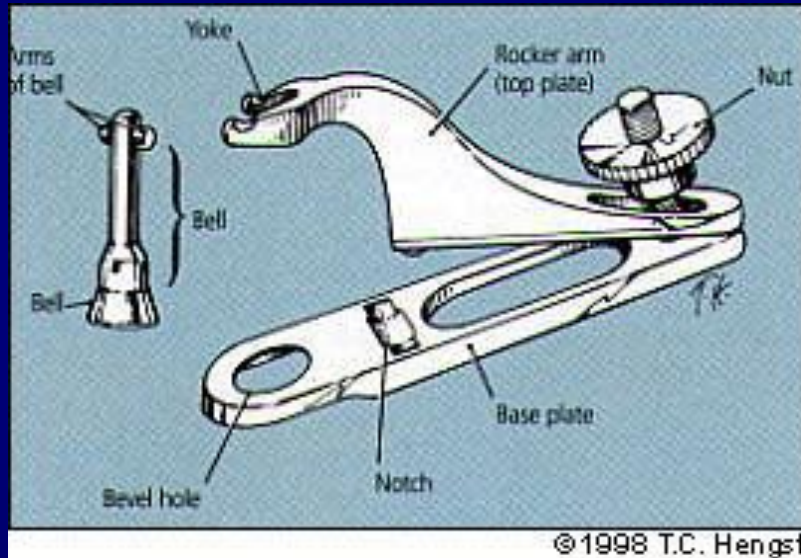
- ✦ Thus, heart rate change was greater and lasted longer with an unanesthetized circumcision compared with the effect of and time for infiltration of a block.

Methods

- ✦ Mogen Clamp
- ✦ Gomco Clamp
- ✦ Plastibell

Gomco Clamp⁶

Crush/shield
Surgical excision



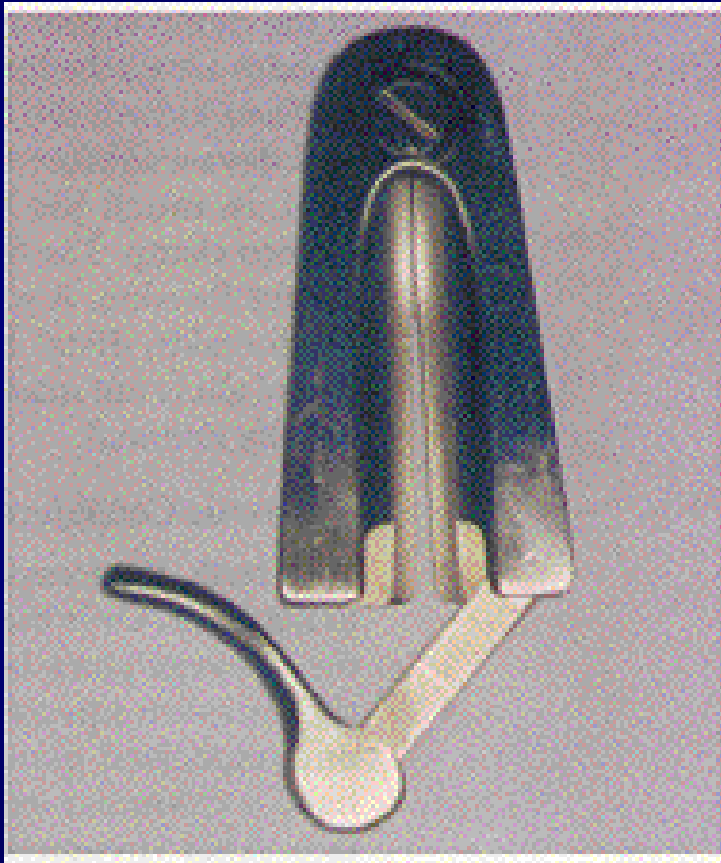
Advantages

Instant
Good cosmesis
Custom fit
Widely used

Disadvantages

Higher rate of shaft denudation
More time
More complicated

Mogen Clamp⁶



Crush/shield
Surgical excision

Advantages

Speed

Instant

Less complicated

Disadvantages

Fewer experienced operators

Plastibell⁶



Crush/shield
Necrosis

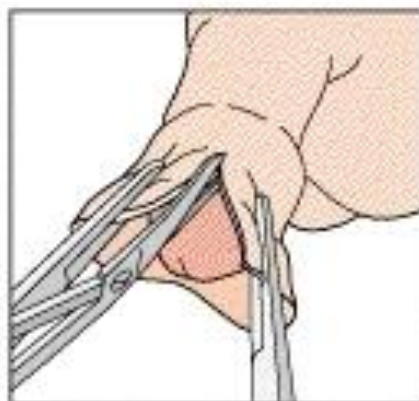
Advantages

Ease of use
Widely available

Disadvantages

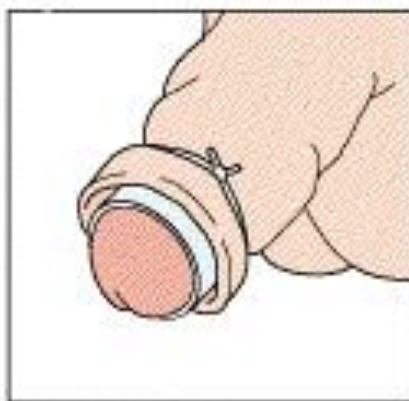
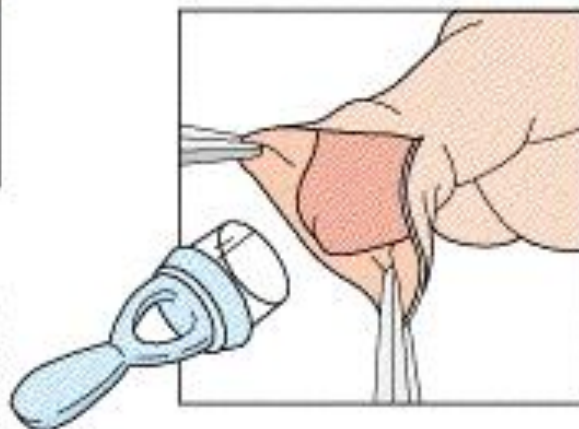
Slight increase in infection
Final result takes days

Circumcision



1. An incision is made in the top of the foreskin.

2. The plastibel is placed over the head of the penis and the foreskin is pulled over the plastibel.



3. A suture is tied around the foreskin over the tying groove in the plastibel. Excess skin beyond the suture is trimmed away. The plastibel falls off 3-7 days later.

Complications

- ✦ Bleeding
- ✦ Infections
- ✦ Not enough or too much foreskin
- ✦ Urethral trauma
- ✦ Mortality 1/500,000

Common Problems

✦ Not enough

✦ Adhesions

✦ Phimosis

✦ Cosmetic “turtle neck”

Common Problems

☀ Too much

- Concealed penis
- Denuding

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