

# An improved device for male circumcision: a modified Ross style (Plastibell) tourniquet shielding ring.

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## BACKGROUND

Circumcision is one of the few interventions that has shown a beneficial effect on the risk of HIV infection. Ross style tourniquet circumcision devices (Ross ring, Plastibell, SmartKlamp, and others) routinely require a dorsal slit in infants and the use of hemostats and scissors. In resource limited areas it would be advantageous to eliminate the need for these instruments and the infrastructure required to sterilize them.

## METHOD

We have modified the circumcision ring originally introduced by Ross, now distributed under the trade name Plastibell. This modified Ross ring is disposable and can be placed within the foreskin without a dorsal slit and incorporates a removable handle that contains a protected blade. Once inserted, the handle must be broken off the shield and inverted to use the protected safety blade to remove the foreskin beyond the tourniquet. Once the handle is broken off, the shield is rendered unusable. This discourages reuse of the shield and ensures a new shield will always be accompanied by a new blade. We evaluated the shield in 83 male infants and tested the blade in another 5.

## RESULTS

The shielding ring was successfully placed in all 83 of the infants without making a dorsal slit. In 5 cases, the safety blade was used to excise the foreskin

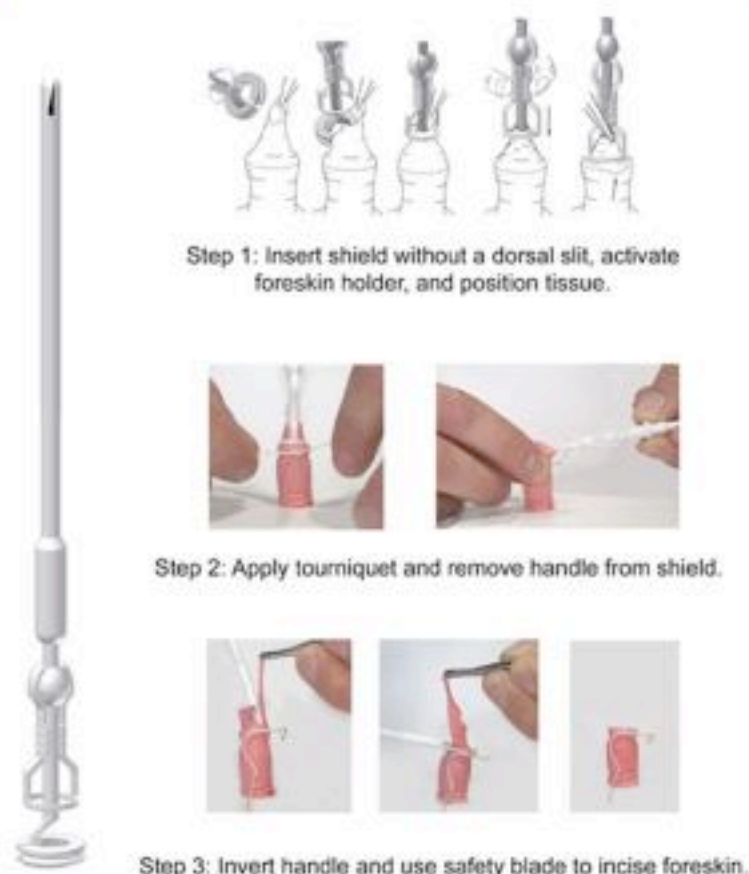


Figure 1: Modified Ross circumcision ring

## CONCLUSION

We have demonstrated that this simple, disposable, modified Ross style shielding ring can be placed within the foreskin without a dorsal slit and without the need for hemostats and scissors. The safety blade that is incorporated in the handle of the shield offers protection, convenience, and discourages reuse. These improvements could help reduce the risk of traumatic injury, procedural cost, and infection through contaminated device parts, particularly in resource limited areas.



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