



Produced by the Ministry of Health

# MEDICAL MALE CIRCUMCISION (MMC) FOR HIV PREVENTION

What Every Health Worker Must Know



A Basic Information Booklet for Health Workers September 2009

#### Foreward

In Uganda, an estimated 1.1 million people are living with HIV and about 135,000 people are infected with the virus every year. The existing HIV prevention strategies have worked to reduce HIV prevalence. Currently, HIV prevalence in the general population has stagnated between 6 to 7 percent. In view of this, the Ministry of Health underscores the need for a sustained and integrated approach to prevent new HIV infections. This approach lies in emphasising the traditional prevention methods, including abstinence from sex, faithfulness among couples, use of condoms, and prevention of mother-to-child transmission (PMCT); while adopting new and proven innovations such as medical male circumcision (MMC). More than 90% of HIV infections occur through heterosexual intercourse. In a country like Uganda where few men (24.8%) are circumcised and yet HIV prevalence is high, new research shows that infections can be reduced by half in 20 years if a majority of men get circumcised. The World Health Organization (WHO) and Joint United Nations Program on HIV/AIDS (UNAIDS) have recommended MMC as an important strategy for the prevention of heterosexually acquired HIV infection in men.

There are a few limitations however. The National Strategic Plan for HIV/AIDS activities 2007/08 – 2011/12 recognises the protective capacity of MMC against HIV, but it should be understood that it is not 100% effective. The health sector also requires expanded infrastructure and human resource capacity to provide safe and effective circumcision services. At the same time, some health workers have limited knowledge about the health benefits of MMC and its limitations in HIV prevention.

This booklet of frequently asked questions about MMC for HIV prevention will hopefully become a useful resource for all cadres of health workers not only to update themselves about MMC for HIV prevention but also to educate their clients about the same. It has been developed and reviewed by the National Male Circumcision Task Force, with representatives from MOH, Uganda AIDS Commission, WHO, UNAIDS, Association of Surgeons of Uganda, and Referral Hospitals, and produced with support from the United States Agency for International Development (USAID). Specific content development and editing has been done by Makerere University School of Public Health (SPH) with technical assistance from Health Communication Partnership (HCP). Special thanks go to the following persons for their dedication to the accomplishment of this booklet: Freddie Ssengooba (SPH), Venansio Ahabwe (HCP), Sam Enginyu (MOH), Cheryl Lettenmaier (HCP), Christine Nalwadda (SPH), Milly Nattimba (SPH), Ruth Musekura (HCP), and Vincent Kawooya (SPH). We look forward to greater collaboration with all stakeholders in combating HIV/AIDS.

Dr Alex Opio

Assistant Commissioner, Disease Control

### Inside this booklet.

Objectives of this booklet

Source of information about MMC

#### **Section One:**

What is Medical Male Circumcision? In what cases is circumcision allowed?

#### **Section Two:**

How does Medical Male Circumcision prevent HIV infection?

#### **Section Three:**

What is the role of counselling in Medical Male Circumcision?

#### **Section Four:**

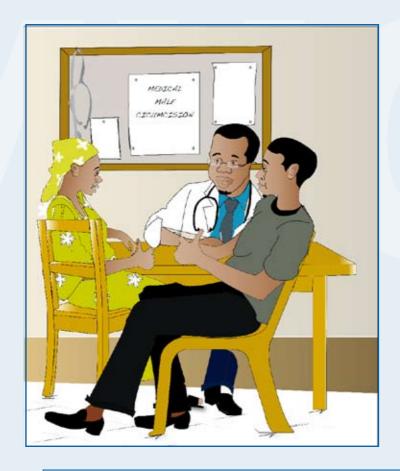
What happens during Medical Male Circumcision?

#### **Section Five:**

Answering the Most Frequently Asked Questions

### Q. What is the purpose of this booklet?

The purpose of this booklet is to provide basic facts to health workers in Uganda about Medical Male Circumcision (MMC) for HIV prevention and support public education on MMC.



Health workers should encourage couples to have consultations together before the operation.

#### Q. What are the objectives of this booklet?

This booklet is intended to:

- Give health workers basic and accurate information about the process of medical male circumcision and HIV prevention.
- Serve as reference for health workers to educate their clients about the benefits of MMC.
- Encourage health workers to add MMC to education about the existing methods of HIV prevention, including ABC (Abstinence, Be faithful, and Condom use).
- Enable health workers to counsel and guide clients who choose to take up MMC.
- Help health workers to guide clients and refer them to the right health centres where MMC services are provided.

#### Q. What is the source of information about MMC?

- Research results obtained in 2006 showed that Medical Male Circumcision (MMC) provides considerable protection against HIV among men.
- In 2007, the World Heath Organisation (WHO) and Joint United Nations Programme on HIV/AIDS (UNAIDS) recommended that MMC should be included among other HIV prevention methods.
- Therefore, health workers would add MMC to the existing methods of HIV prevention which include ABC: Abstinence, Be faithful and Condom use.
- Experts say that if large scale circumcision is implemented, about 5.7 million new infections could be avoided in sub-Saharan Africa over 20 years.

### Section One

### Q. What is Medical Male Circumcision (MMC)?

Medical Male Circumcision (MMC) is the process of removing the foreskin from the head of the penis, and is done within a health facility. MMC must be done with the suitable surgical tools and by a trained medical worker.

Medical male circumcision is a process that involves the following:

- A doctor explains to the client the benefits of medical male circumcision.
- The client also learns about the limitations of circumcision.
- The client can accept or refuse to be circumcised from an informed point of view. For an adult, consent is given by the client whereas a parent or guardian would consent for a minor.
- This is followed by circumcision. MMC must be done with appropriate equipment and by a well-trained health worker.
- During the process of circumcision, anesthesia is used to ensure that the client does not feel pain.

### Q. What does the doctor check for before MMC?

- The doctor examines the client fully to determine the condition of the client as regards his blood pressure, pulse, and breathing.
- The client is also checked for any sexually transmitted infections, which may cause infections or delayed healing after circumcision.
- The doctor also checks for congenital anomalies (inborn abnormalities) of the penis.
- Genital ulcer diseases (wound-causing diseases) as well as urethral discharges (abnormal fluids from the opening of the penis) are also checked for.
- The doctor also examines the client for chronic disorders of the penis and foreskin e.a. filariasis (elephantiasis).

 The client should also be tested for HIV in order to provide appropriate counselling.

## Q. In what cases would a man need treatment before circumcision?

Treatment should be administered if a man has some or all of the following:

- Sexually transmitted infections.
- Genital ulcer diseases.
- Filariasis (elephantiasis) of the foreskin.

### Q. Are some men unfit for circumcision?

Yes. Some men are unfit for circumcision if they have the following conditions:

- Malformed penis (hypospadias and epispadias). This is where the urethra opens in an abnormal position.
- Sickle cell anemia and other inborn bleeding disorders.
- Penile cancers.

## Q. What evidence is there to support the promotion of MMC in HIV prevention?

- In 2006, three clinical trials were conducted in Uganda, Kenya and South Africa.
- The trials showed that MMC protects men from getting infected with HIV by about 60%.
- Scientists also say that circumcised men are about eight times less likely to contract HIV through the penis than uncircumcised men.

 This is because the virus can hide and live inside the foreskin for some time, but when the foreskin is removed during circumcision, this hiding place will no longer be available.

## Q. Has there been any research on MMC for HIV prevention in Uganda?

- Makerere University School of Public Health (MUSPH) together with the Rakai Health Sciences Programme conducted clinical trials in Rakai district, Uganda.
- Nearly 5,000 men were registered and participated in the Uganda study.
- When researchers studied the results, they found that men who were circumcised got fewer HIV infections than ones who were not.
- The new infections among circumcised men were 50% less compared to the uncircumcised.
- This means that new HIV infections among sexually active men, aged 14 – 49, can be reduced by half, if most of them in this age group are circumcised.

#### Q. What are the recommendations of WHO and UNAIDS?

- The World Health Organisation (WHO) and United Nations Joint Programme on HIV/AIDS (UNAIDS) concluded that there was enough evidence from the clinical studies which shows that MMC protects men from HIV infection through sex.
- WHO and UNAIDS organised a conference for experts from different parts
  of the world to discuss the results of the trials. They noted that the new
  evidence was related to earlier findings from observational studies which
  showed places with high circumcision had less HIV infections.

- They emphasised that existing HIV prevention methods of ABC should be strengthened.
- Medical Male Circumcision has been recommended for countries which have high HIV prevalence and low circumcision rates.

#### Q. How can MMC be used for health and social purposes?•

- Male circumcision is performed in many societies in the world for cultural and religious reasons. For Muslims and Jews, circumcision is a religious custom, whereas for the Bagisu, Bakonzho, Sabiny, and Bamba in Uganda, it is a cultural practice.
- Medical male circumcision (MMC) is primarily performed to improve the health and hygiene of men and their sexual partners. In particular, MMC can reduce the possibility of acquiring HIV and other sexually transmitted infections.
- However, MMC can also be used during cultural and religious functions so that safety is guaranteed during circumcision.
- Unlike traditional circumcision, MMC is performed in health facilities, following standard medical procedures by trained medical personnel.
   The procedure includes: examination of clients' health before circumcision, counselling, use of sterilised tools, and treatment of possible infections.
- In MMC, there is standard amount of the foreskin that can be removed.
   To meet the cultural or religious expectations, however, a man may discuss with the doctor about the size of the foreskin that may be removed and get appropriate advice.

## Section Two

## Q. Why is it easier for uncircumcised men to get HIV infection?

- There are many cells inside the foreskin where HIV, other viruses and bacteria can hide and stay alive. These cells include CD4 cells, the Langerhans, CD+ T-cells, and macrophages.
- The cells, inside the foreskin, are normally wet with natural fluids (mucus).
   They are very many, forming a thick layer within the foreskin, where viruses and bacteria can stay alive and finally enter the blood system.
- In case of sexually transmitted infections (STIs), ulcers tend to grow inside
  the foreskin; and this makes it easy for HIV to enter the body. During
  circumcision, the foreskin is cut away; which in turn reduces a man's risk
  of getting STIs.

## Q. How does Medical Male Circumcision prevent HIV infection?

- When a penis is erect, the surface area of the inner layer of the foreskin increases and is exposed. This provides more room for HIV to gain access to the bloodstream.
- The inner layer of the foreskin is delicate and is easily injured during sex.
   The bruises sustained during sex provide a quick route of entry for the virus. Removal of the foreskin creates a tough layer around the penis and hence makes it harder to get bruises during sex.
- The area inside the foreskin is normally wet with natural fluids (mucus).
   This provides a good environment for viruses, germs and bacteria to stay and live longer. This increases the possibility of HIV to enter the blood system.

 Circumcision reduces the risk of acquiring sexually transmitted infections, some of which cause wounds around the penis, where the virus can pass to enter the body.

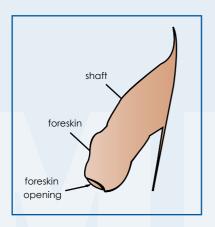
Removal of the foreskin decreases the risk of all the above conditions.

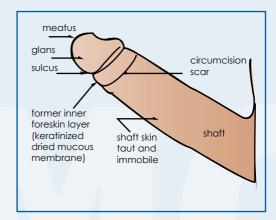
#### Q. What is the foreskin?

- The head of the penis is known as the 'glans'. It is shaped like an oval bulb and is a little larger than the shaft (tube shaped length of a penis).
   The glans is covered by a piece of loose skin, which is removed during circumcision.
- The skin that covers the glans is called the 'foreskin' whose outside part is
  the same as the rest the skin covering the entire penis. It is a flexible doublelayered fold of skin which is always wet, soft and free to slide up and down
  the length of the glans
- Thus the inside layer of foreskin is soft like the inside of an eyelid, nose or mouth.

#### **Before Circumcision**

#### After curcumcision

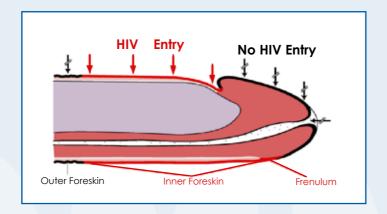




A male organ before and after circumcision.

#### Q. How does HIV enter the body during sexual intercourse?

- The head and foreskin of an uncircumcised penis are naturally wet and covered by a soft membrane.
- During sexual intercourse, the foreskin rolls off the head of the penis, and leaves it bare and exposed.
- Through the process of active sexual intercourse, the wet soft membrane
  of the foreskin can break and make it easy for the virus to enter the
  bloodstream.
- In addition, as the foreskin rolls off the tip of the penis during sexual
  intercourse, the cells can get exposed to the virus. HIV enters a man's body
  by connecting to the receptors on the cells inside the foreskin.



A cross section through a penis during an erection.

- Naturally, the virus can be destroyed by the white blood cells within the
  foreskin. However, when large amounts of virus are present, the white
  blood cells can not destroy all of them. They can transport live viruses to the
  regional lymph nodes, where they can infect T-cells and cause a generalised
  infection.
- The longer the virus remains and possibly survives within the foreskin, the greater the chances of entering the bloodstream.

#### Warning:

 Circumcision may not prevent HIV infection if the penis is exposed to a high viral load (big volume of HIV). All men, circumcised or uncircumcised, should use condoms in all situations other than in stable relationships where both partners are faithful and know each other's HIV status.

## Section Three

#### Q. Should counselling be part of the MMC process?

Counselling should be part of the complete package a health facility provides to the clients who ask for MMC services. This helps people to understand how to prepare for circumcision and care for themselves thereafter; physically, psychologically and behaviourally.

#### Q. Who should know about MMC?

 Everybody should know about MMC: men, youth, adolescents, couples, mothers and fathers.

#### Q. When should information on MMC be given out?

- During counselling for general HIV Counselling and Testing;
- Before Medical Male Circumcision:
- After Medical Male Circumcision: and
- During outreach and other health promotion activities.

When providing general HIV counselling, men and women should be given the right information about MMC, its benefits and limitations. All clients should be told that MMC does not replace other HIV prevention interventions. It is only an addition.

## Q. What other useful information should be given out during counselling?

- MMC is not a natural condom. All circumcised men should continue to use condoms and remain faithful to protect themselves from HIV infection.
- MMC is provided by only qualified health workers, within a clean medical setting.
- Circumcision is a simple surgical procedure that takes about 30 minutes.

#### Q. What is pre-circumcision counselling?

Pre-circumcision counselling is the process of sharing information between a health worker and client or clients. It is the period of listening to the clients or their caretakers to understand their knowledge and expectations about circumcision. It is also a time for the health worker to prepare the clients for circumcision by telling them about the process and duration of circumcision as well as the length of the healing period.

#### Q. Why is pre-circumcision counselling necessary?

- Pre-circumcision counselling helps the clients to know the necessary facts and make a decision to be circumcised with full understanding of what it means.
- Also, it helps the health worker to understand how much the client knows about medical male circumcision.
- Pre-circumcision counselling is also an opportunity for the health worker to
  understand the clients' social and health history (marital status, employment
  status, sexual behaviour, allergies, mental condition, etc) and again to assure
  them about the safety of the process.

### Q. What do health workers and clients discuss during precircumcision counselling?

Duringt his time, a health worker and a client discuss:

- Why the client wants to be circumcised;
- · How the client reached the decision to get circumcised; and
- What the client knows about circumcision in general.

### Q. What should the health worker tell the clients during precircumsicion counselling?

- Circumcision is a minor surgery in which the skin that covers the head of the penis is removed.
- The man to be circumcised is given an anaesthetic drug to ensure that the client does not feel pain during circumcision.



Health worker prepares to dress the wound after the operation

- After the foreskin is removed, the wound is stitched for quick healing.
- The wound is also dressed to prevent it from getting in contact with germs and dirt.
- In about 3 days after circumcision, the client may comfortably wear trousers and go about his work normally.
- Full healing after circumcision takes a period of 42 days (6 weeks).
   During this period, a man should not engage in sex.
- Circumcision only provides partial protection against HIV; therefore men should continue to abstain from sex, remain faithful to their partners, or use condoms.
- It is important for every man to discuss with his partner before getting circumcised and remain faithful to her.

#### Q. What is post-circumcision counselling?

Post-circumcision counselling is the process of discussing with men who have been circumcised, their partners or caretakers about the basic safety measures to follow during the wound healing period.

#### Q. Why is post-circumcision counselling necessary?

- After circumcision, clients should be re-educated about what they should do in terms of behaviour, hygiene, and treatment of the wound.
- Post-circumcision education helps clients to understand the steps they should take in order to recovery properly, the desired sexual behaviour to adopt during the wound healing period and how best to look after the wound.

### Q. What may a client do after circumcision?

After MMC there is no danger if a man does any of the following:

- Take a bath as long the dressing does not get wet.
- Resume work immediately after circumcision if it does not involve a lot of movement.
- Put on light, clean and loose underwear to ensure that it does not rub against the fresh wound.
- Return to the clinic within 2 days for the dressing to be removed.
- Clean the wound once a day with clean, salty water after the dressing has been removed.
- Contact a health worker immediately in case of problems like bleeding, swelling, pus discharge, and inability to pass urine.

### Q. What must a client not do after circumcision?

After MMC a man should not do the following:

- Do not pour dirty water on the wound.
- Do not use antiseptics or detergents to clean the wound.
- Do not engage in sexual intercourse till after 42 days.
- Do not have unprotected sex with a non-regular partner.

A circumcised man must wait for at least 6 weeks (42 days) before having sex. During this time, he can also seek the advice of health workers about when to resume sex. After the wound has healed, a man still needs to use a condom and remain faithful to his partner to reduce the risk of HIV infection. Medical male circumcision only supplements the ABC strategy. If one does not practice safer sex, one can still acquire HIV:

## Q. Should MMC information be given out during community outreaches?

Yes. All people (men and women, teenagers and adults, circumcised and uncircumcised) need to know about medical male circumcision for these reasons:

- Circumcised men will know that circumcision is not immunisation. They can still
  get infected with HIV if they have unprotected sex with infected women.
- Women will understand that circumcised men and boys who are HIV-positive can still transmit the virus to their wives, girlfriends, and other sexual partners.
- Uncircumcised men will understand that MMC is only provided by trained medical workers, using appropriate surgical tools, and in a health facility.
- Uncircumcised men and their sexual partners will also learn about the broader health benefits of MMC.
- Partners, friends, relatives, and caretakers of men and boys who undergo MMC will know how to provide the necessary support during the wound healing period.
- By integrating and disseminating MMC information through community outreach programmes, health workers will promote interpersonal and peer education. Men and women will become more knowledgeable about MMC, make informed decisions, and provide each other guidance and support before, during and after circumcision. In so doing, the work of the health worker will be simplified.

## Q. What should be included in community outreach programmes?

People should be provided the right information regarding MMC, its benefits and limitations. They should be told that:

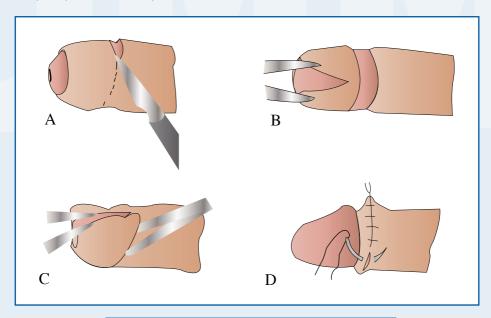
- Medical Male Circumcision (MMC) does not replace other HIV prevention interventions; that include ABC.
- MMC does not protect women against HIV. Women will get the virus if they have unprotected sex with HIV positive circumcised men.
- MMC is not a natural condom. Circumcised men should use condoms to reduce risks of HIV infection.
- MMC is only provided by qualified health workers, and at health facilities.
- MMC is voluntary. No one should be circumcised by force.
- MMC is not a way of converting people into Muslims. People of all religions can get MMC and remain faithful to their religions.
- MMC gives other benefits like reduction in STIs and protection from some cancers in both men and women.

### Section Four

#### Q. What happens during circumcision?

**Circumcision:** During circumcision, the outer layer of the foreskin around the penis is cut. The foreskin is pulled away, and the membrane which was inside is also cut away.

**Stitching:** Sutures (threads) are used to stitch the wound to control bleeding and make the healing process faster. The stitches do not need to be removed. They drop automatically.



The dorsal slit method of circumcision.

**Dressing:** The wound is then dressed with a sterile piece of gauze held in place with a plaster to prevent direct friction with the body and clothing. The plaster also prevents germs from reaching the wound.

**Results:** After circumcision, the surface of the head of the penis develops a thick, dry layer of toughened skin (keratin). This makes the penis fairly resistant to tears or injury during sex.

### Q. What happens immediately after circumcision?

The post operative (after circumcision) care involves the following:

- The client should be monitored for the first 30 minutes after circumcision.
   It is during this period that the effects of surgical trauma and other complications become apparent.
- The health worker monitors the client's condition, specifically blood pressure, breathing and pulse twice at 15 minute intervals after circumcision.
- The surgical dressing is also checked in case of bleeding, proper application of dressing, etc
- The client is also asked if he is experiencing a lot of pain.
- The client gets the first dose of treatment prescribed (usually pain killers)

#### Q. What possible complications are associated with MMC?

Although medical male circumcision is not a risky procedure, it is still important for clients to know that minor complications can arise, including:

- Bleeding.
- Excessive pain.
- Foul smell due to infection in some cases.
- Painful urination or urine retention.
- Swelling of the penis.

In case of any of the above complications, the client should return to the health facility.

In the absence of any complications, a person should still return to the health facility to be reviewed by a health worker after one week.

#### Q. Can MMC lead to a sense of false confidence?

MMC provides numerous health benefits, including some protection against HIV infection. However, this is not absolute protection. There is great concern that men and women can think that it provides complete protection and thus adopt risky behaviour. Such false confidence can lead to:

- Men's failure to use condoms to prevent HIV infection.
- Women being deceived into having unprotected sex with HIV positive men.
- Men having multiple sexual partners

It should be remembered that circumcision is not immunisation. It only provides minimum protection against HIV infection. It should be used together with other safer sex practices including abstinence, using condoms, and being faithful to one sexual partner who is not infected with HIV.

### Section Five

### Answering the Most Frequently Asked Questions.

#### Q. Does Medical Male Circumcision give 100% protection?

MMC provides partial protection against HIV infection. Research shows that a circumcised man is about eight times safer from HIV infection than an uncircumcised man. The preventive potential of MMC is only up to 60%. This means circumcised men can still become infected with the virus and also infect their sexual partners.

### Q. Does MMC protect women against HIV infection?

MMC does not directly protect women against HIV infection. Circumcised men and boys who are HIV positive can still transmit the virus to their female sexual partners. However, if MMC protects men, it means that reduced HIV infections among men could result into fewer women being infected as well.

#### Q. Can a circumcised man transmit HIV to his sexual partners?

A circumcised man who is HIV positive can infect his sexual partner(s) if they engage in unprotected sex. Circumcision does not prevent women from being infected with HIV by men who have been circumcised. Women must insist on protected sex whether a man is circumcised or not.

### Q. Does MMC replace the other HIV prevention options?

Circumcision is not a substitute of the ABC strategy. After circumcision, a man should abstain, remain faithful to one faithful sexual partner or use condoms consistently and correctly. MMC does not replace but only supplements the ABC strategy. Circumcision minimises but does not eliminate the risk of HIV infection.

It is always part of a comprehensive HIV/AIDS prevention package, which includes:

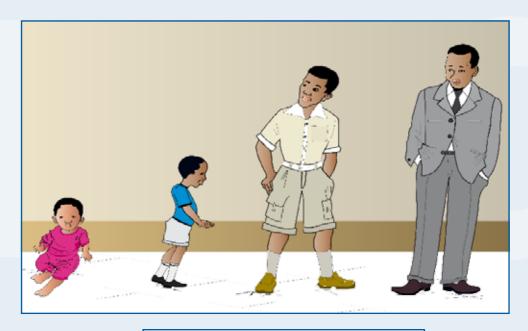
- Delay in the onset of sexual relations.
- Abstinence from sexual intercourse.
- Correct and consistent use of condoms.
- Being faithful to one sexual partner whose HIV status is known.
- Seeking HIV testing and counselling services.
- Seeking post-exposure prophylaxis (PEP) within 72 hours.
- Seeking services for the treatment of sexually transmitted infections.

### Q. How safe is Medical Male Circumcision?

- Medical male circumcision is safe because it is performed by well trained health personnel in health facilities and with appropriate tools.
- Because it is conducted in a health facility, care is taken to ensure a hygienic environment and clean tools.
- Medical male circumcision meets basic standards of hygiene and the standard surgical procedures.
- Where health professionals have been trained and equipped to perform medical male circumcisions, any form of post-operative complications can be rare or minor (less than 5%), which can be resolved easily in a health setting.
- Medical male circumcision ensures that clients' wounds are handled professionally through proper stitching, dressing, and continuous treatment.

### Q. When can a person be circumcised?

- The age at which males are circumcised varies. It depends on the reason for circumcision.
- One can be circumcised as an infant, an adolescent or an adult.



Circumcision can be done at all ages.

#### Q. What are the other benefits of medical male circumcision?

- It reduces risks of urinary tract infections, ulcerative sexually transmitted diseases in adulthood, penile cancer, and cervical cancer in female sexual partners.
- It can be used to prevents or treat balanitis, phimosis (inability to retract
  the foreskin), and paraphimosis (inability to return the retracted foreskin
  to its origina location).
- It improves a man's hygiene.

#### Q. When can one resume sex after getting circumcised?

- After circumcision, men should abstain from sex for at least six weeks. This is necessary to ensure that the wound has healed completely.
- When not properly healed, the wound provides a ready entry point for HIV.
- It is therefore advisable to return to the health facility for review of the healing process and seek advice from a health worker before having sex.
- After the wound has been confirmed as healed, then other HIV
  prevention strategies, including the correct and consistence use of
  condoms should be adhered to in order to eliminate possibilities of
  infection.

### Q. Is HIV prevention the only benefit of MMC?

- MMC also reduces the risk of urinary tract infection and penile cancer among men.
- Female partners of circumcised men face lower risks of certain cancers like cervical cancer and some sexually transmitted infections such as Chlamydia, genital herpes, cancroids and syphilis.

### Q. What are the minimum requirements for MMC?

- Circumcision should only be performed in hygienic settings.
- It should be performed by well-trained health workers.
- Each client should be circumcised using a set of sterile instruments

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<sup>\*</sup>AIDS Vaccine Advocacy Coalition