

Daddy Cool

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What are the options for HIV positive men who want to father babies? Kirsty Machon reports.

The best [side effect](#) [1]An unwanted effect caused by the administration of drugs. Onset may be sudden or develop over time. of improved anti-HIV treatments has undoubtedly been the way that they have allowed many HIV-positive men and women to simply 'get on with the business of living'.

As medical outcomes have improved, attention has shifted to how HIV affects everyday human concerns — sex, eating, work and relationships. Improved HIV treatments, together with an expanding knowledge of the dynamics of HIV transmission between mother and child, have allowed many HIV positive women to contemplate something that many women once were told would be unfeasible: having a baby.

There is a growing wealth of literature about the best practice management of pregnancy for HIV positive women — although gaps remain to be filled and prejudices to be overcome — but there's been relatively little discussion of the options for HIV positive men who want to father children.

For many men, the grief at being told at diagnosis that they could never father a child for fear of infecting the mother (and, following from that, potentially the child), has been just as profound as the sense of loss reported by so many women who received their diagnoses before effective [antiviral](#) [2]A medication or substance which is active against one or more viruses. May include anti-HIV drugs, but these are more accurately termed antiretrovirals. treatment came along. But this is a sadness rarely spoken of, and barely addressed, in the literature of HIV.

A clearer picture is, however, slowly beginning to emerge, and the news is good: that there are several options for HIV positive men who want to father children.

The natural way

One, admittedly controversial, option which some couples choose is to simply conceive 'the natural way' — through unprotected sex. Some men may find this approach unacceptable, particularly where their partner is HIV negative, however some couples have been prepared to take this risk, and have been successful.

Thinking about this involves a careful understanding and weighing up of both epidemiological risk, and the factors affecting individual risk at any given time. As with anal sex, not every act of unprotected vaginal sex leads to HIV transmission — in fact, the rate of transmission appears quite low. Statistically, it is estimated that the risk of a negative woman seroconverting after a single act of unprotected vaginal sex with a positive man is between one in 500 or even one in 1000. Obviously, the more unprotected sex a couple has, the greater this risk becomes over time.

But there certainly are cases of women becoming HIV positive after only one or two unprotected sexual encounters with a positive partner — so it is vital that the overall understanding of statistical risk be grounded in the specific risks which can affect the likelihood of transmission. It may be more likely that HIV is transmitted from a man to his partner through unprotected vaginal sex if:

- the sex takes place during, or shortly after, the man's seroconversion;
- the man has a high [viral load](#) [3]A measurement of the quantity of HIV RNA in the blood. Viral load blood test results are expressed as the number of copies (of HIV) per milliliter of blood plasma.;
- the man has another sexually transmitted infection, such as gonorrhoea, which may increase the 'shedding' of [virus](#) [4]A small infective organism which is incapable of reproducing outside a host cell., or affect HIV viral load;
- the woman has any sexually transmitted infections or other conditions which may lead to ulcerations, abrasions or irritation of the walls of the vagina (such as herpes);
- there is insufficient lubrication during sex, leading to possible tears or bleeding — using ample quantities of

water-based lubricant can help avert this.

This list is not exhaustive, but these are some of the key things known to increase the likelihood of HIV transmission.

The second thing to consider in this context is to reduce any risk by minimising the number of unprotected sexual encounters needed for the woman to conceive. You can do this, for example, by carefully timing sex to the time during her menstrual cycle when the woman is most fertile and likely to conceive: ovulation. To work out how to time this, you should discuss this with your doctor, who may also advise you on any other risk minimisation strategies. Information on this 'rhythm method' may also be available from your state family planning organisation.

To father a child using this approach, you should first ensure that there are no pre-existing conditions affecting your partner's fertility or her ability to conceive naturally, so that you have the maximum chance of success with the minimum amount of unprotected sex, and your partner is not exposed to semen more than is necessary.

There is not much data on the specific risks of HIV transmission in this kind of scenario. A 1997 French report on 92 HIV negative women and their positive partners found that, while it often took several attempts for the woman to become pregnant, in 17 cases pregnancy was achieved at the first try. Although no one in this group became positive as a result of the conception, some couples reported inconsistent use of condoms following pregnancy and, apparently as a result of this, four women did seroconvert — two during pregnancy, and two after the birth of the child. This underscores the fact that transmission risks may not be a 'one-off', but increase over time.

Finally, it is also important to bear in mind that some studies have shown that the level of HIV (viral load) in your blood may be a poor predictor of the amount in your seminal fluid. In other words, it's possible to have low amounts of HIV in your blood, but higher amounts in your semen (or vice versa), so blood viral load alone cannot be used as a foolproof 'predictive' tool.

Sperm washing, artificial insemination and intracytoplasmic sperm injection

'Sperm washing' is a technique pioneered by an Italian researcher, Dr Enrico Semprini, and based on the idea that HIV is found not in the sperm cells themselves, but in the seminal fluid. Recent research appears to confirm that individual spermatozoa themselves are unlikely to be infected with HIV, as they lack the necessary receptors for the virus to bind to.

So, thought Dr Semprini, maybe you could 'wash' sperm free of semen and HIV, and then use these washed sperm to artificially inseminate the woman. The process involves separating the sperm from the seminal fluid using a centrifuge. A 1999 [study](#) [5] A clinical trial is a research study to answer specific questions about vaccines or new therapies or new ways of using known treatments. Clinical trials are used to determine whether new drugs or treatments are both safe and effective. Carefully conducted clinical trials are the fastest and safest way to find treatments that work in people. Trials are in four phases: Phase I tests a new drug or treatment in a small group; Phase II expands the study to a larger group of people; Phase III expands the study to an even larger group of people; and Phase IV takes place after the drug or treatment has been licensed and marketed. published in the journal AIDS shows that sperm washing is a viable technique for serodiscordant couples (where the man is positive) wishing to have children.

This approach has been used for some time around the world, particularly in Europe, although it has only recently been tried in Australia. The technology will soon be available through a joint pilot project of the Alfred Hospital and the Royal Women's Hospital in Melbourne.

To be eligible, a positive man would need to have an undetectable viral load in both blood and semen, and his female partner would be tested to assess her fertility. Depending on the individual situation, one of two methods would be used: artificial insemination timed to the woman's cycle, or in vitro-fertilisation using a technique called intracytoplasmic sperm injection (ICSI).

ICSI is a process by which an egg is 'harvested' from the woman, and then fertilized directly with a single treated spermatozoon, rather than the millions of sperm to which an egg would usually be exposed. This technology is

substantially more expensive than artificial insemination, costing several thousand dollars to achieve successful conception. Patients need to be referred to the Alfred by their GP.

Other options

There are other options for positive men who want to become parents, but they may not suit all needs. Adoption may be legally possible where one or both partners are positive, but this may not be a realistic avenue: the numbers of children adopted out in Australia remains extremely small (about 30 adoptions a year) with many more couples waitlisted than children adopted out.

If both partners are positive, [in-vitro](#) [6](Latin: within the glass) refers to the technique of performing a given experiment in a controlled environment outside of a living organism; for example in a test tube. fertilisation (IVF) may be an option. A recent ruling on a Victorian case found that a woman could not be refused access to IVF treatment on the grounds of a HIV positive diagnosis alone, so if both partners are positive, and the woman has fertility problems, IVF may be one possible route.

Another option is donor insemination, where the woman is inseminated with donor sperm (not her partner's). However, many positive men explicitly want the opportunity to be the genetic father of the child they will be raising.

However you plan to have a child, planning will be the most important part of the deal, so enlisting the assistance and support of a good HIV-experienced medical practitioner to talk you through the options is the first step.

- [heterosexuals](#)
- [pregnancy and childbirth](#)

Links:

[1] <http://www.napwa.org.au/glossary/term/469>

[2] <http://www.napwa.org.au/glossary/term/123>

[3] <http://www.napwa.org.au/glossary/term/416>

[4] <http://www.napwa.org.au/glossary/term/125>

[5] <http://www.napwa.org.au/glossary/term/89>

[6] <http://www.napwa.org.au/glossary/term/500>