

## Future Pregnancies For CF Carriers

If you have a child with cystic fibrosis (CF) you may be thinking about having another baby. Statistically, there is a one in four chance that your next baby could also have CF. There is also a two in four chance of your baby being a carrier and a one in four chance of your baby being neither a carrier nor affected.

This factsheet describes some of the current options available to couples in WA considering future pregnancies.

### What are your Reproductive Choices?

#### Conceive Naturally

Many families decide to continue to grow their family by conceiving naturally. In some situations, umbilical cord blood may be able to be collected and tested at delivery of the new baby. This would need to be arranged prior to the birth of your child and discussed with your obstetrician or doctor managing your case.

Newborns may also be diagnosed through newborn screening (heel prick/Guthrie card test) or recalled for further investigations, such as sweat tests, if they are found to be carriers.

#### Conceive Naturally and have Pre-Natal Testing

Once a baby is conceived naturally there are pre-natal tests that can be performed to see if the baby has CF.

- *Chorionic Villus Sampling (CVS)*: This test can be performed from 12-14



weeks of pregnancy, with public hospitals in WA performing CVS from 13 weeks gestation. In this procedure a sample of placental cells are taken from the mother and sent to the lab and tested for genetic conditions such as CF.

- *Amniocentesis*: This test can be performed from 16 weeks. A sample from the amniotic fluid (the fluid surrounding the developing baby) is taken and analysed by a laboratory.

Whilst these are both very safe procedures, there is a very small risk of miscarriage associated with them. Talk to your managing team about any concerns.

#### Pre-Implantation Genetic Testing (PGT)

PGT is performed on embryos conceived by in vitro fertilisation (IVF). IVF is a process by which an embryo is created outside the body using an egg cell from the mother and a sperm cell from the father.

After a few days, a cell is removed from the newly created embryo and tested for a specific genetic condition such as CF.

Only the unaffected embryos are implanted into the mother's uterus. As for all IVF procedures, there is no guarantee of a pregnancy. You will need to research the costs carefully as extra fees exist for the PGT component in addition to those associated with IVF.

All couples wishing to pursue IVF in WA need to submit an application to the [Reproductive Technologies Council](#) and meet with a clinical geneticist or genetic counsellor. Your chosen fertility specialist can assist you with these applications and make any necessary referrals to a genetics service.

### **Donor Sperm or Egg**

Although an egg donor can be used, it is much easier to use a sperm donor. The aim here is to avoid both parents being carriers of the CF gene. Artificial insemination is available through private fertility practices. All sperm and egg donors are screened for the most common CFTR genes.

### **Donor Embryo**

Donor embryos are sometimes available. Couples undergoing IVF may choose to donate their embryos if they have more than they need.

## **Decision Making**

Obviously, there is no 'right' choice here. People will make different choices at various times in their lives and choices are often influenced by family, relationship, medical or financial circumstance. Only you and your partner can decide which option is the right one for you both.

For more information contact the Genetic Services in your area and make an appointment with a genetic counsellor.

All discussions with a genetic counsellor are confidential. Information will not be passed onto the CF team without your permission.

## **Useful Resources**

- [Genetic Services of WA \(Department of Health\)](#)
- [Preimplantation Genetic Diagnosis in WA](#)
- [Genetic Factsheets \(NSW Health\)](#)

Many thanks to Genetic Services WA for their input into this factsheet.

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