

# Blastocyst Culture

## What is a blastocyst?

A blastocyst is the name given to an embryo that has been grown in culture for five to six days after fertilisation. At the blastocyst stage a healthy embryo consists of more than 100 cells. The cells have now developed differing functions in preparation for pregnancy. Around the outside of a fluid filled cavity are the trophoblast cells that will form the placenta, and within the fluid cavity (blastocoel) is the inner cell mass which will become the foetus.



## Embryo - Day 5 (Blastocyst)

In the early days of Assisted Reproductive Technologies (ART) embryos were placed in the uterus 2 or 3 days after fertilisation when they consisted of 4 to 8 cells. In nature embryos at this stage are usually in the fallopian tube and only arrive in the uterus 5 days after fertilisation as a blastocyst. After much research it was discovered that embryos need different nutrients after the third day in culture. By changing the culture nutrients on day 3 we can now grow embryos beyond this time meaning they can be put back into the uterus at the stage best suited to them.

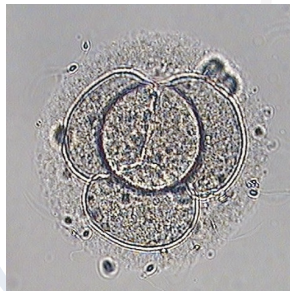
## What are the advantages of culturing (i.e. growing) to blastocyst stage?

It was always thought that the culture environment of embryos in the laboratory was not perfect and it was best to put them back in the uterus as soon as possible after fertilisation. However at the early stage (called cleavage stage) all embryos look similar and it is difficult to select the best. Many "normal" embryos fail to develop beyond day 3 and are therefore much less likely to result in pregnancy than those that continue to grow to blastocyst. By growing embryos to day 5, in modern day media, we are able to choose the embryo that is more likely to result in a pregnancy.

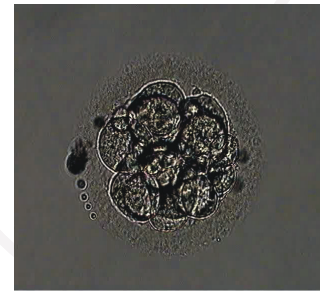
Fertilised Egg - Day 1



Embryo - Day 2



Embryo - Day 3



## Referral Information:

As a new or continuing patient at Next Generation Fertility it is required that you have a current referral from your GP or other medical specialist to one of our fertility specialists. You must bring this referral with you on the day of your first appointment.

A referral from your GP lasts for twelve (12) months, however you can request an indefinite referral which will be valid for the entire duration of your treatment. If you bring a referral from a specialist, this will only be valid for a three (3) month period and must be updated after this time.

## Appointment Information:

To make an appointment please call our administration team on 1300 300 643.

## Our Locations

### North Parramatta Rooms

NGF IVF Laboratory  
Level 2, 1 Fennell Street  
North Parramatta NSW 2151

(02) 9890 9022

### Campbelltown Rooms

Campbelltown Private Hospital  
Level 1, 42 Parkside Crescent  
Campbelltown NSW 2566

1300 300 643

### Penrith Rooms

Nepean Private Specialist Centre  
Suite 1, 1A Barber Avenue  
Kingswood NSW 2747

1300 300 643

### Bella Vista Rooms

Norwest Private Hospital  
L1, Suite 107, 9 Norbrik Drive  
Bella Vista NSW 2153

1300 300 643