'Fraternal' or 'Identical' twins? Zygosity and Placentas



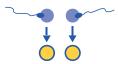
'Fraternal', 'Non-identical' or Dizygotic (DZ) twins

Two eggs are released from the ovaries





Both fertilised to form zygotes



Both develop placentas and implant the uterus



In around 60% the two placentas (in pink and green) remain seperate

In around 40% the two placentas fuse

- Occurs when two separate eggs are released from a woman's ovaries and each is fertilised by two individual sperm cells.
- Both twins develop their own placentas and implant in the uterus, so are dichorionic (two placentas).
- In 40 percent, the placentas grow together and fuse (due to limited space). A fused placenta can make twins appear identical (when they are non-identical).

Dizygotic twins are dichorionic.

'Identical' or Monozygotic (MZ) twins

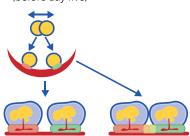
One egg is released from the ovaries



Fertilised to form one zygote



Splits into two after placenta develops (after day five)





In around 18% the two placentas (in pink and green) remain seperate

In around 14% of MZ the two placentas fuse

In around 68% of MZ there is one placenta

- •Occurs when one egg is released and fertilised by a single sperm cell. This then splits in two, to form two 'identical' fertilised eggs.
- In about 1/3 of MZ twins, the split happens before the placenta has started to form so each twin develops their own placenta (dichorionic twins). In 14 percent of MZ twins, the two placentas fuse.
- In about 2/3 of MZ twins, the split takes place after the placenta has formed. These twins share one placenta so are monochorionic.

Monozygotic twins can be monochorionic or dichorionic, depending on when the split occurs.

WHEN SHOULD YOU CONSIDER ZYGOSITY TESTING? If twins are the same sex and each had a placenta or if there is doubt about the type of placenta, then they could be monozygotic (identical) or dizygotic (fraternal).

Genetic (zygosity) testing is usually done by collecting a cheek swab with a mailed kit.

To learn more θ for discounted genetic testing go to www.twins.org.au or freecall 1800-037-021.

