**‘Fraternal’ or ‘Identical’ twins?**  
**Zygosity and Placentas**

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### ‘Fraternal’, ‘Non-identical’ or Dizygotic (DZ) twins

- Two eggs are released from the ovaries.
- Both fertilised to form two zygotes.
- Both develop placentas and implant the uterus.

**Diagram:**
- Two eggs: one pink and one green.
- Two zygotes: both pink or both green.
- Two placentas: both pink and green.
- Implantation: both into the uterus.

- In around 60% the two placentas (in pink and green) remain separate.
- In around 40% the two placentas fuse.

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### ‘Identical’ or Monozygotic (MZ) twins

- One egg is released from the ovaries.
- Fertilised to form one zygote.
- Splits into two before placenta develops (before day five).

**Diagram:**
- One egg: pink.
- One zygote: pink.
- Placentas: pink.
- Implantation: into the uterus.

- In around 18% the two placentas (in pink and green) remain separate.
- In around 14% of MZ the two placentas fuse.
- In around 68% of MZ there is one placenta.

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- 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.**

- 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.**

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**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 & for discounted genetic testing go to www.twins.org.au or freecall 1800-037-021.